# Annual Report 2018-2019

### NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING





**NITIE for Nurturing Industry Towards Excellence** 

# Annual Report 2018-19

Annual Report
National Institute of Industrial Engineering
(NITIE), Mumbai
(1 April 2018 – 31 March 2019)



National Institute of Industrial Engineering

### **Vision**

"To be the thought leader in Industrial Engineering education and research, and partner in the manufacturing renaissance of the nation"

### **Mission**

"To advance transformative education and industry-inspired research in Industrial Engineering"



I.

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#### **ABOUT NITIE**

NITIE was established as an autonomous Institute in 1963 by the Government of India with the assistance of United Nations Development Programme through International Labour Organisation.

NITIE offers two-year Post-Graduate Programme in Industrial Engineering (PGDIE). Industrial Management (PGDIM), Industrial Safety and Environmental Management (PGDISEM), Project Management (PGDPM), and Manufacturing Management (PGDMM). NITIE also offers one-year full time Post-Graduate Program for Executives–Visionary Leadership for Manufacturing (PGPEX-VLFM) jointly along with IIT Delhi. This Programme is specially designed for experienced engineers with 5-12 years of experience in manufacturing domain. NITIE also offers Fellowship Programme which is recognized as equivalent to Ph. D. of an Indian University. NITIE has been conducting several short-term Management Development Programmes of short duration in various areas of Industrial Engineering and Management. The training programmes of NITIE emphasize on learning with a purpose and are accompanied by an abiding concern for man. Besides training, NITIE is also engaged in applied research and offers consultancy in the various facets of Industrial Engineering, Operations Research, Decision Sciences, Safety & Environmental Management, Marketing Management, Organisation Behaviour and Human Resource Management, Project Management and Manufacturing Management.

NITIE faculty members, drawn from various basic disciplines, have diverse experience in business, industry and government, and thus are able to bring to bear academic concepts to the practical problems. By introducing new concepts, techniques and programmes to meet the changing needs arising out of rapid technological development and socio-economic transformation, NITIE endeavors to equip the managers, administrators and specialists in government, public utilities, industry and other service sectors with the necessary skills for efficient performance.

NITIE has established a Centre of Excellence in Ergonomics and Human Factors Engineering (CEEHFE) as part of Government of India's Technology mission-2020 through TIFAC (Technology Information Forecasting and Assessment Council) – Mission REACH (Relevance and Excellence in Achieving New Heights) in Educational System. NITIE has also established an Advanced Manufacturing Centre of Excellence. The Centre is equipped with FMS, Robot, 3-D Printing and Reverse Engineering facilities.

NITIE publishes quarterly a professional journal, UDYOG PRAGATI. This deals with new developments in Industrial Engineering, Industrial Management and allied fields. Members of Alumni Association are entitled to a copy of the journal. Participants of Management Development Programmes are eligible to become members of Alumni.

NITIE campus is located in one of the most picturesque surroundings of Mumbai flanked by Powai and Vihar Lakes. NITIE is administered through a Board of Governors representing industry, government, labour and professional bodies with **Prof. Sanjay G. Dhande**, Former Member, UGC & Former Director IIT Kanpur as Chairman and **Prof. (Ms.) Karuna Jain** as Director.



# INSTITUTE STRUCTURE



Annual Report 2018-19



### NITIE BOARD OF GOVERNORS/SOCIETY

#### 1. Number of Board/Society Meetings held with dates:

Board Meeting No.	Date	Society Meeting No.	Date
150	01.08.2018	Nil	Nil
151	08.09.2018	74	08.09.2018
152	21.12.2018	75	21.12.2018

#### BOARD OF GOVERNORS (w.e.f. 27th March, 2017 to 26th March, 2021)

	boling of dovbattone (with 21th March, 2011 to 20th March, 2021)				
I	Chairman	Prof. Sanjay G. Dhande Chairman, NITIE BOG Former Member, UGC & Former Director IIT Kanpur 58 Buena Monte, Panchavati, Pashan, PUNE - 411 008.			
II	Representatives of Central Government 1. Finance	Ms. Darshana M. Dabral Joint Secretary & Financial Advisor Department of Higher Education Ministry of Human Resource Development Government of India Room No. 111-C Wing, Shastri Bhavan, NEW DELHI-110001.			
	2. Education	Shri Madhu Ranjan Kumar Joint Secretarry (DL & A) Department of Higher Education Ministry of Human Resource Development Government of India Room No.118 - C, Shastri Bhavan, NEW DELHI - 110 001.			
	3. Ministry of Commerce & Industry	Dr. Ashish Kumar Senior Development Officer (Engg.) Department of Industrial Policy and Promotion Ministry of Commerce & Industry Government of India Room No. 436 A, Udyog Bhavan, NEW DELHI - 110 011.			
III	Representative of National Productivity Council	Dr. Vandana Kumar, IDAS (Upto 19.11.2018) Joint Secretary, DIPP & Director General, National Productivity Council Utpadakta Bhavan, 5-6, Institutional Area, Lodhi Road, NEW DELHI - 110 003			
		Dr. Amita Prasad, IAS, (From 20.11.2018) Director General National Productivity Council Utpadakta Bhavan, 5-6, Institutional Area, Lodhi Road, NEW DELHI 110 003.			





IV	Representative of All India Council for Technical Education	Prof. Devang Khakhar Director Indian Institute of Technology, Bombay, Powai Mumbai - 400076.
V	Four Representatives of Industry including Public Enterprises nominated by Central Government	Shri V Kalyana Rama     Chairman & Managing Director     Container Corporation of India Ltd.     Concor Bhawan, C-3, Mathura Road     Opp. Apollo Hospital, NEW DELHI – 110076.
		<ol> <li>Shri Atul Chandrakant Kulkarni Independent Consultant B-1/52, Gokul Co-Operative Housing Society Ltd. Plot No. 14, Sector 19 A, Nerul, NAVI MUMBAI – 400706.</li> </ol>
		3. Shri Ashok Chowgule (Upto 22.07.2018) Joint Managing Director M/s Chowgule and Co.Pvt. Ltd. Ship Building, Near Borim Bridge Loutulim, GOA – 403718.
		4. Shri Anand Sankeshwar (From 23.07.2018) Managing Director & Whole Time Director M/s VRL Logistics Ltd. Giriraj Annexe, Hubli, Karnataka-580 029
		5. Shri Shashi Kiran Shetty Chairman Allcargo Logistics Ltd., 6th Floor Awashya House, CST Road, Kalina, Santacruz (East), MUMBAI - 400 098.
VI	Two Members Representing Workers' Organisations	1. Shri Pawan Kumar Bharatiya Mazdoor Sangha, 2426, Tilak Gali Chunamandi, Paharaganja, NEW DELHI – 110002.
		2. Shri Surendra Kumar Pandey Office Superintendent SECL Bishrampur Colliery, Q.No. 1C-107, Post – Bishrampur Colliery, Dist. Sarguja, CHHATISGARH – 497226.
VII	Two Representatives of other interests such as Engineering professions and technical institutions, etc.	1. Dr. A.M. Rawani Director, NIT Raipur, 1-B, Gulmohur, Kailash Residency, Bottle House Road, Shankar Nagar, Raipur, CHHATTISGARH - 492001.
		2. Prof. Nomesh Bolia Associate Professor (IE & OR) Department of Mechanical Engineering Indian Institute of Technology, Delhi, Houz Khas NEW DELHI – 110016.



VIII	Two Co-opted Members Representing Industrial Engineering, Productivity Sciences, etc.(co-opted by the Board)	<ol> <li>Shri Pramod Chaudhari         Founder and Executive Chairman,         Praj Industries Limited,         "Praj Tower" 274 &amp; 275/2         Bhumkar Chowk - Hinjewadi Road         Hinjewadi         PUNE - 411057.</li> <li>Shri B Prasada Rao         Former CMD, BHEL         Flat No. X – 8 B,         Meghadutam Apartments,         Sector – 50,         NOIDA – 201 301.</li> </ol>
IX	One Representative of Govt. of Maharashtra Co-opted by the Board	Shri S.J. Kunte (Upto 03.09.2018) Additional Chief Secretary Higher and Technical Education Government of Maharashtra Madam Cama Road Hutatma Rajuru Chowk Mantralaya, MUMBAI - 400032.
		Shri Saurabh Vijay (From 04.09.2018) Secretary, Higher & Technical Education Dept. of Govt of Maharashtra Madam Cama Road, Hutatma Rajguru Chowk Mantralaya, Mumbai.
X	Ex-Officio-Member	Prof. (Ms) Karuna Jain Director NITIE
XI	Two Members of NITIE Teaching Faculty to be co-opted by the Chairman	1. Prof. A.K. Pundir (Upto 31.12.2018) NITIE  Prof. Seema Unnikrishnan (From 01.01.2019) NITIE  2. Prof. KVSS Narayana Rao (Upto 31.12.2018) NITIE  Prof. Vijaya Gupta (From 01.01.2019) NITIE
XII	Ex-Officio-Secretary	Prof. Vivek Khanzode (Upto 08.03.2018) Registrar I/c. NITIE Shri Basavaraj Swamy (From 09.03.2018) Registrar NITIE



### **NITIE DEANS & ADMINISTRATIVE OFFICERS**

#### Deans:

1. Prof. V B Khanapuri

2. Prof. (Ms.) Hema A Date

3. Prof. Shirish Sangle

- Dean (Academics)

- Dean (Student Affairs)

- Dean, Sponsored Research & Industrial Consultancy (SRIC)

#### Prof. In-Charge:

1. Prof. Rauf Iqbal

2. Prof. A S Binilkumar

3. Prof. (Ms.) K S Ranjani

4. Prof. (Ms.) Anju Singh

- PIC (Executive Education)

- PIC (Research)

- PIC (Media Relations)

- PIC (Security & Transport)

#### **Administrative Officers:**

#### Registrar

Shri Basavaraj Swamy

#### Manager, Computer Centre

Shri A N Naidu

#### System Designer

Shri SM. Venkataramaiah Ramagiri

#### **Deputy Registrar**

1. Shri Liju David Mathew - w.e.f. 22.1.2019

2. Dr. Ashish Singh Dixit - w.e.f. 1.2.2019 upto 31.7.2019

#### **Library & Information Officer**

Mrs. Bhagyashree E. Kordey

#### **Executive Engineer**

Shri R. M. Gaikwad

#### Senior Programmer

Shri K. Yeshwantha Rao

#### Assistant Registrar

1. Mrs, Sangita Jadhav

2. Mrs. Nisha Singh (Retd. Lt. Cdr.)

3. Mr. T M Hariram

#### **Medical Officer**

Dr. Smruti R. Patel

# **ACADEMIC ACTIVITIES**

### a. Academic programmes

- i. Fellow Programme
- ii. M.Tech Equivalent Programme
  - a) PGDIE
  - b) PGDMM
  - c) PGDPM
- iii. MBA Equivalent Programme
  - d) PGDIM
  - e) PGDISEM
- iv. Post Graduate Programme for Executives in Visionary Leadership for Manufacturing (PGPEX-VLFM)



#### **ACADEMIC PROGRAMMES**

#### i) FELLOW (Doctoral) Programme

Fellow (Doctoral) programme aims to admit individuals with the sound academic background, strong motivation and potential to become excellent researchers at national and international level. The interdisciplinary nature of the programme stimulates opportunities in exploring different facets of research areas.

Admission notification in respect of Fellow (Doctoral) Programme- 2019 was released in leading Newspapers/ Journals and Magazines on 9<sup>th</sup> December 2018. Admission related activities are in progress.

- 15 LR cum PR
- 29 Students have presented Credit Seminar
- 17 Students have presented Pre-Synopsis Seminar
- 20 Students have presented Progress Seminar
- 21 Students have defended Viva-Voce Examination successfully

#### ii) M. Tech Equivalent Programme:

## a) Post Graduate Diploma in Industrial Engineering (PGDIE)

NITIE offers a two-year residential Post Graduate Diploma in Industrial Engineering, equivalent to Master's Degree in Industrial Engineering, recognized by the Government of India, Association of Indian Universities, and All India council for Technical Education. The PGDIE programme has focus on technomanagerial and cross-functional skills. Admission is restricted to the candidates who qualify through Graduate Aptitude Test in Engineering (GATE), followed by Group Discussion and Personal Interview. Industry

Sponsored candidates fulfilling eligibility criteria are also considered for admission.

The students of 46<sup>th</sup> batch PGDIE programme (2016-18) have completed their programme and have been placed in various organizations.

The students of 47<sup>th</sup> batch PGDIE programme (2017-19) have completed 6<sup>th</sup> Quarter and are now pursing their Six Months Final Project.

The students of 48<sup>th</sup> batch PGDIE programme (2018-20) have completed 3<sup>rd</sup> Quarter.

Admission notification for  $49^{th}$  Batch of PGDIE,  $6^{th}$  Batch of PGDMM & PGDPM (2019-21) was released in leading Newspapers/ Journals, Magazines and on NITIE website on  $3^{rd}$  February 2019. Admission related activities are in progress.

## b) Post Graduate Diploma in Manufacturing Management (PGDMM)

NITIE offers a two-year residential Post Graduate Diploma in Manufacturing Management. Admission is restricted to the candidates who qualify through Graduate Aptitude Test in Engineering (GATE), followed by Group Discussion and Personal Interview. Industry Sponsored candidates fulfilling eligibility criteria are also considered for admission.

The students of 3<sup>rd</sup> batch PGDMM programme (2016-18) have completed their programme and have been placed in various organizations.

The students of  $4^{th}$  batch PGDMM programme (2017-19) have completed  $6^{th}$  Quarter and are now pursing their Six Months Final Project.

The students of 5<sup>th</sup> batch PGDMM programme (2018-20) have completed 3<sup>rd</sup> Quarter.



#### c) Post Graduate Diploma in Project Management (PGDPM)

NITIE offers a two-year residential Post Graduate Diploma in Project Management. Admission is restricted to the candidates who qualify through Graduate Aptitude Test in Engineering (GATE), followed by Group Discussion and Personal Interview. Industry Sponsored candidates fulfilling eligibility criteria are also considered for admission.

The students of  $3^{\rm rd}$  batch PGDPM programme (2016-18) have completed their programme and have been placed in various organizations.

The students of 4<sup>th</sup> batch PGDPM programme (2017-19) have completed 6<sup>th</sup> Quarter and are now pursing their Six Months Final Project.

The students of 5<sup>th</sup> batch PGDPM programme (2018-20) have completed 3<sup>rd</sup> Quarter.

#### iii) MBA Equivalent Programme:

# d) Post Graduate Diploma in Industrial Management (PGDIM)

NITIE offers a two-year residential Post Graduate Diploma in Industrial Management (PGDIM), recognized by All India council for Technical Education. The PGDIM addresses all the strategic, tactical and operational issues involved in today's business. An understanding of the various perspectives and dimensions of business are at the base of this programme. The programme has focus on Systems, Operations, SCM, Business Policy, Tools and Techniques, Human Resources, Marketing and Finance areas which help in developing the right knowledge amalgamation. The programme addresses the needs of the Industry by targeting the entire value chain of the business organization.

Admission to PGDIM programme is restricted to Engineering Graduates who qualify through Common Admission Test (CAT) conducted by the IIMs followed by Group Discussion and Personal Interview.

The students of 23<sup>rd</sup> Batch PGDIM programme (2016-18) have completed their programme and have been placed in various organizations.

The students of 24<sup>th</sup> Batch PGDIM (2017 -19) programme have completed their 7<sup>th</sup> Module.

The students of 25<sup>th</sup> Batch PGDIM (2018-20) have completed 3<sup>rd</sup> Module.

# e) Post Graduate Diploma in Industrial Safety & Environmental Management (PGDISEM)

NITIE has launched a Post-Graduate Diploma in Industrial Safety and Environmental Management which is of two years duration and is approved by All India Council for Technical Education. Objective of the Programme is to provide knowledge to improve quality of Industrial safety and environmental practices, to equip the students.

With necessary expertise to manage Industrial safety and environmental problems effectively paving the way for cleaner and safer production, to inculcate a systematic approach in dealing with Industrial Safety and Environmental Management through scientific management methodologies available for decision-making, and to provide foundation for specialized studies and research in safety and environment.

Admission to PGDISEM Programme is restricted to Engineering Graduates who qualify through Common Admission Test (CAT) conducted by the IIMs followed by Group Discussion and Personal Interview.

The students of 16<sup>th</sup> Batch PGDISEM (2016-18) have completed their programme and have been placed in various organizations.

The students of 17<sup>th</sup> Batch PGDISEM (2017-19) programme have completed their 7<sup>th</sup> Module.

The students of 18<sup>th</sup> Batch PGDISEM (2018-20) have completed their 3<sup>rd</sup> Module.



Admission notification in respect of PGDIM 26<sup>th</sup> Batch & PGDISEM 19<sup>th</sup> Batch were released in leading Newspapers/Journals, Magazines and on NITIE website on 28<sup>th</sup> October 2018. A total No. of 3819 applications were received and 2098 candidates were short listed for GD & PI based on the CAT Score and overall academic performance. GD & PI was held from 25.03.2019 to 29.03.2019. 1564 candidates have attended the GD & PI.

# The number of students admitted in the various programmes (2018-20)

Programme	Intake	Students Admitted
PGDIE	126	126
PGDIM	274	248
PGDISEM	39	15
PGDMM	40	35
PGDPM	40	30
FELLOW	35	24
VLFM	30	8

# iv) Post Graduate Programme for Executives in Visionary Leadership for Manufacturing (PGPEX-VLFM)

NITIE launched one year full time post graduate programme for Executives in Visionary

Leadership for Manufacturing (PGPEX-VLFM) jointly with IIT Delhi from the year 2017. This programme is specially designed for experienced engineers with 5-12 years of experience in manufacturing domain. Professionals who are eager to drive the manufacturing renaissance by putting themselves through a challenging, peer driven and experiential learning experience are encouraged to apply in either of the two categories – individual or sponsored.

Admission notification in respect of **PGPEX-VLFM** 2<sup>nd</sup> Batch was released in leading Newspapers/Journals, Magazines on 6<sup>th</sup> May 2018. A total No. of 32 applications were received and 29 candidates were short listed for Personal interview on the basis of admission criteria. Personal interview was held on 25<sup>th</sup> June 2018. 21 candidates have attended the Personal interview.

The students of 1<sup>st</sup> batch PGPEX-VLFM programme (2017-18) have completed their programme.

The students of  $2^{nd}$  batch PGPEX-VLFM programme (2018-19) have completed their  $3^{rd}$  module and they are pursuing with their Summer Internship.



# **ACADEMIC ACTIVITIES**

b.

Are	eas	Coordinators
i.	Industrial Engineering and Manufacturing Systems	Prof. (Ms) Priyanka Verma
ii.	Operations and Supply Chain Management	Prof. Rakesh Raut
iii.	Engineering Technology and Project Management	Prof. (Ms.) Vijaya Dixit
iv.	Decision Science and Information Systems	Prof. (Ms.) Purnima Sangle
v.	Environmental Engineering & Management	Prof. (Ms.) Hema Diwan
vi.	Economics and Strategy	Prof. A S Binilkumar
vii.	Finance and Accounts	Prof. Vipul Kumar Singh
viii.	Marketing	Prof. Ranjan Chaudhary
ix.	Organizational Behaviour and Human Resource Management	Prof. Nikhil Mehta



### INDUSTRIAL ENGINEERING AND MANUFACTURING SYSTEMS

#### a) Introduction to the area (including Objectives):

#### Introduction of area:

**Industrial Engineering** refers to the design and improvement in work systems and is firmly entrenched on the philosophy of continuous improvement of these work systems which are integrated form of people, product (or service) and processes. **Manufacturing Systems** refers to the various method of organizing production. Many types of manufacturing systems are in place, including assembly lines, batch production and computer-integrated manufacturing to current day 3-D printing. The area **Industrial Engineering and Manufacturing Systems** (**IEMS**) in NITIE is a merger between *Industrial Engineering* and *Manufacturing Systems area*.

#### Objective of area:

To drive Industrial Engineering and Manufacturing Systems research to enhance national competitiveness in manufacturing and service sector.

#### b) List of Area members and their specialization:

S.No	Faculty	Designation	Specialization	
1.	Prof. L. Ganapathy	Professor	Quantitative Methods, Project Management	
2.	Prof. KVSS Narayana Rao	Professor	Industrial Engineering, Capital Markets, Financial Modelling	
3.	Prof. Ashok K. Pundir	Professor	Industrial Engineering, Project Management, Supply chain management	
4.	Prof. Milind Akarte	Professor	Industrial Engineering, Operations & Supply Chain Management, Manufacturing Strategy, MCDM, Additive Manufacturing	
5.	Prof. Padmanav Acharya	Professor	Industrial Engineering, System Dynamics, Project Management, Logistics Supply Chain	
6.	Prof. S.K. Rauf Iqbal	Associate Professor	Ergonomics and Human Factors Engineering, Work System Design	
7.	Prof. Vivek Khanzode	Associate Professor	Industrial Engineering, Operations Management, Lean Manufacturing	
8.	Prof. Balkrishna E. Narkhede	Associate Professor	Industrial Engineering, Supply Chain Management, Manufacturing Strategy, Project Management	
9.	Prof. Priyanka Verma	Assistant Professor	Industrial Engineering, Supply Chain Modelling, Facilities Planning, Operations, Quantitative Techniques	
10.	Prof. Jinil Persis	Assistant Professor	Operations Research, Simulations and modeling analysis, Evolutionary multi-objective optimization techniques	



#### c) Fellow Students in IEMS Area:

Sr	Name of Fellow Student	Supervisor/s	Topic of Research
1	Sourabh Kulkarni	Prof Priyanka Verma/ Prof R Mukundan	The dynamics of Manufacturing Strategy
2	Anjali Shisodia	Prof Priyanka Verma/ Prof Karuna Jain	Designing resilient project network based on project characteristics and risks
3	Ashutosh Mishra	Prof Priyanka Verma	Core Retrieval Framework for value creation towards sustainable economy
4	Vishwas Dileep Dohale	Prof Milind Akarte Prof Priyanka Verma	Quantifying the congruence between the Process Choice Criteria and Production System employed in manufacturing firm
5	Shashank Kumar	Prof. Balkrishna Narkhede Prof. Karuna Jain	Warehouse Management
6	Vikash Sharma	Prof. Balkrishna Narkhede Prof. Ravindra Gokhale	Manufacturing Strategy
7	Kirti Nayal	Prof. Balkrishna Narkhede Prof. Rakesh Raut	Food Supply Chain Management
8	Mahak Sharma	Prof. P. Acharya Prof. Ruchita Gupta	Adoption of Cloud Computing Services in ICT Firms in India
9	Anand Sashikumar	Prof. P. Acharya	Lean Performance Assessment in Bias Tyre Manufacturing: A Case based study in India
10	Ramakrishna Barsakade	Prof. L. Ganapathy Prof. P. Acharya	Modelling and Analysis of Lean implementation in Select Healthcare Systems in India
11	Prakash Vaidya	Prof. P. Acharya Prof. K. Maduletty	Reverse Logistics
12	Harshad Chandrakant Sonar	Prof. Milind Akarte Prof. Vivek Khanzode	Evaluating the impact of additive manufacturing on firm competitiveness.
13	Debasis Haldar	Prof. Rauf Iqbal Prof. Vivek Khanzode	Development of Dynamic Anthropometry Database of Indian Population for Designing Industrial Work Systems
14	Ramesh Kumar	Prof. L Ganapathy Prof. Ravindra Gokhale	Production-distribution planning in supply chain
15	Bhawana Rathore	Prof. Ashok Kumar Pundir Prof. Rauf Iqbal	Ergonomics evaluation in glass artware industry
16	Shreyanshu Parhi	Prof. Milind Akarte Prof. Kanchan Joshi	Investigating the impact of Industry 4.0 on manufacturing performance
17	Nikhil Suryakant Ghag	Prof. Karuna Jain Prof. V. B. Khanapuri	Work System Design for Complex Automated System



Sr	Name of Fellow Student	Supervisor/s	Topic of Research		
18	Virendra Kumar Verma	Prof. Milind Akarte Prof. Gaurav Kabra	Impact of Additive Manufacturing on Supply Chain performance		
19	Pratik Maheshwari	Prof. Ashok Kumar Pundir Prof. Sachin Kamble	Inventory management of non instantaneous deteriorating items		
20	Priya Prakash Ambilkar	Prof. L Ganapathy Prof. Ashok Kumar Pundir	A study on selection of reverse logistics partner for product returns in closed loop supply chain		
21	Rajan Kumar Gangadhari	Prof. Vivek Khanzode Prof. Shankar Murthy	Risk Management of Oil and Gas supply chain network using big data		
22	Janak suthar	Prof. D. Jinil Persis Prof. Ruchita Gupta	Smart factory		
23	Mihir Kulkarni	Prof. D Jinil Persis Prof. Mukundan R	Modelling of Smart Manufacturing Factories		
24	Venkata jagadeeswar rao tattikota	Prof. L Ganapathy Prof. V . Khanapuri	Application of Project management techniques in a defence R&D organisation		
25	Chandrashekhar Vishnu Chaudhari	Prof. Vivek Khanzode Prof. Raut Iqubal	Application of TOC for supplier buyer relationship in consumer goods environment		
26	Amit Jaywantrao somwanshi	Prof. Vivek khanzode Prof. Debabrata Das	Supply chain management		
27	Bhide Amol	Prof. Milind Akarte	Remanufacturing for sustainability		
28	Gandhare B S	Prof. Milind Akarte	Evaluation Of Maintenance Performance In Select Agro-Based Industries		

# Any Achievement of Faculty (Awards, Recognition, etc):

Prof. Balkrishna Narkhede has been appointed as an Associate Editor for OPSEARCH Journal (Springer)

# Outreach (List of MDP, UBP, Consultancy undertaken):

#### **UBP**:

• Six-week Dedicated Industrial Engineering Programme for Bharat Electronics Ltd Bengaluru

#### Consultancy:

- Manpower Planning for M/s Coromandel International Ltd, Dahej, Gujrat
- Manpower Planning for M/s H & R Johnson, Pen

- Manpower Planning for M/s Prism Cement Ltd, Satna
- Productivity/Time Motion Study for M/s RMC Readymix (India) Mumbai

#### Programs organized:

- Fifteen Days internship program was hosted by Advanced Manufacturing Centre for Excellence, NITIE for Punjab Engineering College, Chandigarh students under student exchange program from 25<sup>th</sup> May to 6<sup>th</sup> June 2018 under the guidance of Prof. Milind Akarte, Prof. Vivek Khanzode and Prof. Rauf Iqbal.
- National Conference on Industrial Engineering & Technology Management (NCIETM-2018) was organized during Nov 30th -Dec 1st, 2018.
   The theme of the conference was "Reimagining"



- Industrial Engineering and Technology Management for Value Creation". Prof. Milind Akarte, Prof. Balkrishna Narkhede and Prof. Mukundan R. organized NCIETM-2018.
- National Productivity Week on the theme of "Circular Economy for Productivity and Sustainability" was celebrated during 12th
- -18th February, 2019. Steering Committee comprised of Prof. Balkrishna Narkhede, Prof. Anju Singh and Prof. Jinil Persis.
- A Round Table Discussion on 'Circular Economy for Productivity and Sustainability' was organized on 15th February 2019.

#### Snapshots of some programs organized:



NCIETM-2018



National Productivity Week 2018



#### Palanquin (Palki) Project at Shri Mata Vaishno Devi Shrine

A real life project titled 'Redesigning the palanquin system for use in Shri Mata Vaishno Devi Shrine', has been carried out by National Institute of Industrial Engineering (NITIE) and Industrial Design Centre (IDC) of IIT Bombay. The project was initiated by Dr. Chidambaram, Principal Scientific Advisor to the Govt. of India, New Delhi. Shri Mata Vaishno Devi Shrine Board extended all necessary support for the project. Team NITIE consisted of Prof. (Ms.) Karuna Jain, Director, Prof. Ashok K Pundir, Prof. Rauf Iqbal, Prof. Vivek Khanzode and Ms. Shreya Maulik.

The project was initiated in Nov, 2015. The deliverables of the project are i) Newly designed Palanquin and ii) Porters kit (Porter's jacket, waist belt, knee caps and ankle caps).

Prof. Ashok K Pundir and Prof. Rauf Iqbal attended the inaugural function from NITIE Mumbai, Shri Simrandeep Singh IAS, CEO Shrine Board conveyed thanks to Dr. R Chidambaram, Principal Scientific Advisor, Govt. of India, New Delhi and Hon'ble Governor of Jammu and Kashmir for initiation of the project. He highlighted the role of NITIE Mumbai and IDC, IITB for this project. The patent for the Palki has been applied. The new Palki and porter's kit will reduce the pain and injury to



Prof. Ashok K Pundir of NITIE receiving the appreciation from the Hon'ble Governor of J & K

porters. NITIE will take up similar exercises for other shrine boards.

# Ergonomics Study at Tea Estate of Parry Agro Industries Ltd, Chennai

The study was conducted in a Tea Estate of Parry Agro Industries Ltd, Chennai. One of the activities in the tea estate is tea plucking activity. Tea plucking activity is done by the both men and women but the no. of women workers are more in comparison to male workers in tea plucking activity. Tea plucking activity is done in two techniques, namely, i) Hand plucking and iii) Shearing. Shearing is more frequent than hand plucking. During the plucking

activity, leaf collection bag is placed on the back with the load bearing ropes surrounding the head. This imposes load and pressure on head, neck and back when the bag is full of tea leaves. There was report of serious health issues among the workers. As part of this initiative, Parry Agro Industries Limited, Chennai approached NITIE to provide expertise in the area of Ergonomics for conducting an ergonomics study in their Tea Estates. Therefore, team from NITIE comprising of Prof. Ashok K Pundir, Prof. Rauf Iqbal, Prof. Vivek Khanzode and



New palanquin on the dais





Prof. Utpal Chattopadhyay visited the Tea Estate of Parry Agro Ltd, Channai situated at Valparai, in the state of Tamil Nadu and conducted a detailed ergonomic study.

The findings of the study revealed that the tea plucking workers are suffering from Musculo-skeletal problems and various body regions are affected, like, pain in knee, shoulder, back, ankle, wrist and elbow etc. Most frequent and severe pain has been reported in the knee followed by shoulder and back.

The weight of the tea collection bag when it is full of tea leaves is 10 kg. During the peak crop production season (March -May), a worker collects more than 150 kg of leaves in a day. Therefore, the worker needs to climb down the hill 15 – 20 times a day to unload the leaves to a common place and go up to continue plucking. This activity coupled with repeated shearing operation are the basis for Musculo-skeletal problems.



Trial of protoype at NITIE



Trial of prototype at tea estate



Existing tea collection bag

Effort was made to redesign the tea collection bag and shear in the Ergonomics Lab at NITIE.

Various protypes were designed and trials were conducted at NITIE as well as at tea Estate at Valparai, Tamil Nadu. Feedback was incorporated, and design was finalized.

The deliverables of the study are newly designed tea collection bag and Shear. The load bearing rope of newly designed tea collection bag has been shifted from head to shoulder.

The weight of the existing shear was 1 kg, whereas the newly designed shear is 760 gm.

The report was presented to the Chairman of the Company Shri. Venkatachalam MM by Prof. Ashok K Pundir and Prof. Rauf Iqbal in the Head Office at Chennai. The report was appreciated by the Chairman and the newly designed tea collection bag and shear have been accepted by the company and are being replaced with existing ones. NITIE is in the process of filing patents for the new designs.



Newly designed tea collection bag



Existing shear



Newly designed shear



### **OPERATIONS AND SUPPLY CHAIN MANAGEMENT**

#### a) Introduction to the area (including Objectives):

Operations and Supply chain Management (OSCM Area) is positioned as a strategic, multidisciplinary Area at NITIE, dedicated to carrying out specialised theoretical and applied research on Operations and Supply Chain Management with participation by a multidisciplinary faculty and industry practitioners.

- To educate and train students & practising executives and develop future industry leaders in areas of Operations and Supply Chain Management
- To conduct research that contributes significantly to the theory and practice of Operations and Supply Chain Management
- To act as a forum to initiate interaction and dialogue on supply chain related issues, challenges and solutions between industry and academia

#### b) List of Area members and their specialisation: (in alphabetical order)

Sr. No.	Faculty	Focus Area	Spectrum of Work
1.	Prof. Gaurav Kabra	Supply Chain Management	Supply Chain Modelling and Analytics
2.	Prof. K. Maddulety	Quality Management / Supply Chain Management	Supply Chain Modelling and Analytics, TQM and Six Sigma
3.	Prof. Rakesh Raut	Operations Management / Supply Chain Management	Collaborative Network Organization, Agriculture Supply Chain, Cold Supply Chain, 3PL
4.	Prof. Ravindra Gokhale	Operations Management / Supply Chain Management	Manufacturing Planning and Control, Supply Chain Modelling, Urban Transportation Systems, Logistics Management
5.	Prof. Sachin Kamble	Operations Management / Supply Chain Management	Agriculture Supply Chain, Cold Supply Chain, Retail Supply Chain
6.	Prof. Sanjay Sharma	Operations Management / Supply Chain Management	Inventory Management
7.	Prof. Sushmita Narayana	Operations Management / Supply Chain Management	Healthcare Operations Management, Sustainable Supply Chain Management

#### c) Growth of Area and activities were undertaken during the year:

#### 1. Academic

The Core Faculty of the Area are active in the following domains of Operations and Supply Chain Management: Sustainable Supply Chain Management, Agriculture and Food Supply Chain, TQM and Six Sigma, Supply Chain Modelling, Supply Chain Analytics, Inventory Management, Logistics Management.



#### Teaching - Courses currently offered in the area

Operations Management, Supply Chain Management, Materials Management, Logistics Management, Quality Management, Advanced Supply Chain Management

#### Area course path

Specific to Fellow Students:

Operations Management  $\rightarrow$  Supply Chain Management  $\rightarrow$  Stream Specific Courses namely, Topics in Supply Chain Management, Advanced Operations Management  $\rightarrow$  Any other courses offered by specific Faculty Guides

#### 2. Research

Profile	Details	Remarks
Faculty	07 Area Core	
		Other group members
Fellows*	07	Current

(\*This includes only the Fellow Students completed/current with the Core Faculty after the restructuring of the Area)

#### Ongoing Research - Fellow and Independent

Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area/ keywords
1.	Ravindra Baliga	Prof. Sachin Kamble / Prof. Rakesh Raut	A Sustainable Closed-Loop Supply Chain Model for Integrated Pulp and Paper Manufacturing Industry	Industry (Thesis Submitted)	Sustainability, Paper Industry
2.	Praveen Dongre	Prof. Ravindra Gokhale	A Study of Supply Chain Performance Measures in Organizations	Sector	Supply Chain Performance, MSME
3.	Prasad Patil	Prof. K. Maddulety/ Prof. Sushmita Narayana	TQM -SCM	Industry	Quality SCM
4.	Rohit Sharma	Prof. Sachin Kamble	Course work completed		Course work completed
5.	Pankaj Kalwaghe	Prof. Rakesh Raut	Course work completed		Course work completed



Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area/ keywords
6.	Lavanya Meherishi	Prof. Sushmita Narayana	Course work completed		Course work completed
7.	Kriti Nayal	Prof. B. E. Narkhede / Prof. Rakesh Raut	Course work completed		Course work completed

#### Area Publications – Conferences and Journals [2018-19]

Sr.No	Contributions	Numbers
1.	International/National Conferences	02
2.	Journals	15
3.	Case studies	*Cases published in journals are considered in Journals
4.	Newsletters / Others	00

#### Outreach (including building Institutional linkages)

#### Management Development Programme [MDP]

Current Focus of these courses - MDPs proposed in Academic Year 2018 -19

- Inventory Management
- Data Analytics for Effective Decision Making
- Operations Research Tools for Strategic Decisions
- Statistical Analysis for Business Decisions
- Logistics and Distribution Management
- Supply Chain Management
- Multi-Criteria Decision-Making Approaches for Vendor Management
- Supply Chain Management
- Greening the Operations in the Organization An Introduction to Sustainable Practices
- Systems Thinking for Businesses Visualizing the "Big Picture"
- Managing Efficient Operations in Indian Healthcare Organizations
- Principles and Applications of Statistical Process Control and Design of Experiments
- Lean Six Sigma

Joint certification in Supply Chain Management with International Universities that NITIE has MoU signed with. One such proposal is being made for Joint Certification with the University of Alabama at Huntsville (UAH).



#### **ENGINEERING TECHNOLOGY AND PROJECT MANAGEMENT**

#### a) Introduction to the area (including Objectives):

In today's environment, technology is a vital element that can give an organization its required competitive edge. Project Management plays a major role in execution of business strategy through portfolio and program management. ETPM area is the amalgamation of two vital areas Project Management and Engineering Technology.

The following goals are set for the area:

- 1. To provide learning platform to successfully execute projects, portfolio & programs.
- 2. To provide a platform to identify, create and implement strategies that enables technologies to reach its potential.
- 3. To build capability for resolving business problems in an integrated way of engineering, technology and business functions.

The primary objective of ETPM area is that by the end of the courses taken under ETPM area, a student will be able to develop competency to handle, manage projects and technology for competitive advantage.

#### b) List of Area members and their specialization: (in alphabetical order)

Sr. No.	Faculty	Focus Area	Spectrum of Work
1.	Prof. Kanchan Joshi	Operations Research / Project Management	Project Management, Scheduling, Resource Planning, Optimization, Metaheuristics Algorithms, OR models for Social Entrepreneurs
2.	Prof. Koteswararao Naik B.	Technology Management/IPR	Creativity, IP Management, Technology Management and Entrepreneurship
3.	Prof. Ruchita Gupta	Technology Management/ Project Risk Management	Diffusion and Adoption, Technology Transfer and Commercialisation, Technology Forecasting, Technology Entrepreneurship
4.	Prof. Vivekanand Khanapuri	Project Management / BPR & IT / Maintenance Management	Project Feasibility & Appraisal, Project Planning Scheduling Monitoring and Control, Project Procurement & Contract Management, Maintenance Management, BPR & IT, Strategic New Product Development



#### c) Growth of Area and activities undertaken during the year:

#### 1. Academic

The Core Faculty of the Area are active in the following domains of Project Management, Technology Management, Operations and Supply Chain Management: Sustainable Supply Chain Management, Agriculture and Food Supply Chain, TQM and Six Sigma, Supply Chain Modelling, Supply Chain Analytics, Inventory Management, Logistics Management.

#### Teaching - Courses currently offered in the area

Project Management, Technology and Innovation Management, Quantitative Models for Project Management, Project Risk Management, Strategic NPD, Managing Creativity & Innovation, Large Engineering Projects, Project Procurement & Contract Management, R&D Project Management, IP Management, Business Research Methods

#### Area course path

Specific to Fellow Students:

Project Management/ Technology and Innovation Management  $\rightarrow$  Stream Specific Courses namely, Advanced Project Management/Technology Management,  $\bullet$  Perspectives on Engineering Technology and Project Management  $\rightarrow$  Any other courses offered by specific Faculty Guides

#### 2. Research

Profile	Details	Remarks
Faculty	04 Area Core	
		Other group members
Fellows*	04/12	Completed / Current

(\*This includes only the Fellow Students completed/current with the Core Faculty after restructuring of the Area)

#### Ongoing Research - Fellow and Independent

Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area / keywords
1	Sushma Priyadarshini Yella	Prof. Karuna Jain / Prof. S. S. Bhattacharya	Corporate Finance regulated firms valuation	Industry	Green SCM
2	Rose Anthony	Prof. V. Khanapuri / Prof. Karuna Jain	Improving Project Management Practices in Agriculture	Sector	SCM, Food Industry
3	Snehal Tawate	Prof. Karuna Jain / Prof. Ruchita Gupta	Technology commercialization in biotechnology firms in India	Sector	Technology commercialization



Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area / keywords
4	Anjali Shishodia	Prof. Karuna Jain/ Prof. Priyanka Verma	Designing relient project network based on project characteristics and risks	Industry	Quality SCM
5	Ajitkumar	Prof. Karuna Jain/ Prof. R. Mukundan	A study on Technology strategic Planning & Decision	Industry	Strategic decision making
6	Mahak Sharma	Prof. Ruchita Gupta/ Prof. P acharya	Adoption of Cloud Computing Services in ICT firms in India	Industry	Cloud Computing in ICT
7	Saurabh Kulkarni	Prof. R. Mukundan/ Prof. Priyanka Verma	Dynamics of Manufacturing Strategy	Sector	Manufacturing Strategy
8	Mr. Vilas Kharat	Prof. Koteshwararao Naik B.	Project Portfolio Management	Industry	Portfolio Management
9	Madhumita Das	Prof. V. B. Khanapuri	Project Monitoring & Control	Industry	Monitoring & Control
10.	Shashank kumar	Prof. Karuna Jain/ Prof. B. E. Narkhede	Warehouse Management	Industry	Warehouse Management
11.	Kavita Bangale	Prof. Kanchan Joshi/ Prof. Ruchita Gupta	Mega Project Complexity	Industry	Project Management
12.	Shreyanshu Parhi	Prof. Milind Akarte/ Prof Kanchan Joshi	Industry 4.0	Industry	Industry 4.0
13.	Pramod Pandey	Prof. V. B. Khanapuri/ Prof. Kanchan Joshi	Undergoing Coursework	Industry	Undergoing Coursework
14.	Rahul Mishra	Prof. Koteswararao Naik B.	Undergoing Coursework	Industry	Undergoing Coursework
15.	Shikha Sargam	Prof. Mukundan R.	Undergoing Coursework	Industry	Undergoing Coursework
16.	Pratima Bhagat	Prof. Ruchita Gupta/ Prof. Karuna Jain	Undergoing Coursework	Industry	Undergoing Coursework



#### Area Publications - Conferences and Journals [2018-19]

Sr.No	Contributions	Numbers
1.	International/National Conferences	09
2.	Journals	04
3.	Case studies	*Cases published in journals are considered in Journals
4.	Newsletters / Others	00

#### Outreach (including building Institutional linkages)

#### Management Development Programme [MDP]

Current Focus of these courses – MDPs proposed in Academic Year 2018-19

- Project Planning and Control
- Project Procurement and Contracts Management
- Decision making skills for Project managers
- Technology Management Tool-kit: From Concept to New Product Development
- Systems Thinking for business visualising the big picture
- Strategic Management of Intellectual Property (IP)
- Competing through Lean Thinking
- Technology Transfer toolkit and IP Analytics
- Driving innovation culture in technology start ups
- Industry 4.0 strategies and deployment
- Project Risk management
- Project Financing

Conducted a specialized one-year certification programme for HPCL in Project Management.

Jointly working with PMI.



### **DECISION SCIENCES AND INFORMATION SYSTEMS**

#### Introduction to the Area

Today's business environment requires companies to collect up-to-date business information from their customers, competitors, and business partners and, more importantly, analyze this information by using advanced tools and technologies. Firms that do not possess these capabilities will fall behind in the highly competitive and quickly changing business environment. As a result, more and more employers are recruiting business professionals who possess quantitative / analytical and technical skills.

The area aims to prepare students to design, develop, and implement complex systems and to conduct research that leads to better understanding of how information technology and quantitative analysis and modeling can support individuals, groups, and systems in problem solving and decision making.

DSIS achieves these objectives by extending and integrating knowledge from the disciplines of Industrial Engineering, Information Systems, Enterprise Systems, Quantitative techniques, Operations Research, Statistics, Artificial intelligence and Business Analytics.

The Area prepares students to conceptualize, analyze, develop, and deliver leading-edge information systems that support business processes and data driven decision-making.

List of Area Members and their Specialization

S.No	Faculty	Focus Area
1.	Prof. R Ramaswamy	Software Engineering, Computer Networks.
2.	Prof. Hema A Date	Business Intelligence, Knowledge Management, Business Analytics, E-Commerce, ERP, DSS, ES, Software Engineering, IT Consulting, Industrial Engineering.
3.	Prof. Purnima S. Sangle	Digital Transformation, Business Analytics, Data Mining, Business Value of IT, Enterprise Systems, ERP, CRM Technology Adoption, Multichannel CRM, IoT.
4.	Prof. Rakesh Verma	Operations Research and its application to Healthcare, Multi Criteria Decision Making, Fuzzy Logic and Its Application To Engineering and Business, Decision Making under Risk and Uncertainty, Data Analytics, Machine Learning, Supply Chain Management.
5.	Prof. S. C. Panandikar	Application of Statistics in Marketing Research, Finance and Econometrics.
6.	Prof. Debabrata Das	Quantitative Techniques for Decision Making, Quantitative Models for Supply Chain Management, System Dynamics Modelling, Multi-Criterion Decision Analysis, Multi-Objective Optimization, Decision Making under Risk and Uncertainty, Closed-Loop Supply Chain Management, Reverse Logistics.



### Growth of Area and Activities undertaken during the year

### Academic

Various courses are being taught by Area faculty members mainly focusing on Data Driven Decision Making, Data Analytics, Decision Support Systems, Enterprise Resource Planning, OR Modeling, Decision Making Under Uncertainty, E-Commerce, Multi-channel CRM, Business Statistic, IT in Manufacturing, Knowledge Management, IT Consultancy Management, Business Analytics Using Data Mining, Statistics for Management, Operations Research, Multi-Objective Optimization, Quality Management, Machine Learning etc.

### Outreach

Prof. Purnima Sangle

MoU Coordinator, L&T Infotech, Academic Research Collaboration (ARC) under Thought Partnership Initiative Program



## **ENVIRONMENTAL ENGINEERING & MANAGEMENT**

### 1. Introduction to Area and Objectives:

The Environmental Engineering and Management (EEM) area is an interdisciplinary and cross functional area. The area interfaces with engineering and management aspects in the environment and safety domain with the broader objective to excel in the filed of Environmental Management, Safety, CSR and Sustainability. The area focuses on developing strategies and methods for sustainable growth of industry while improving their environmental performance and minimizing their ecological footprint and impacts. The area has dedicated faculty members with strong academic and research background in the field of Environment, Sustainability, Health and Safety. The faculty interacts with industry, academic and research institutes to provide insights in several areas. The area is very active and organizes several academic and outreach activities every year.

### 2. List of area members and specialization:

Name of Member	Specialization
Prof. Seema Unnikrishnan	Environmental law and Policy, Disaster Management
Prof. Shirish Sangle	Organization and Natural Environment
Prof. Shankar Murthy	Environmental Engineering, Process Safety, Industrial Wastewater Management
Prof. Anju Singh	Business sustainability, Environmental management, Corporate Social Responsibility

Prof. Hema Diwan	9	Industrial pollution control, EIA, Sustainability management
Prof. Vidyadhar V. Gedam		Chemical Hazard and Safety, Sustainable Development, Mineral Waste Management, Water Quality Assessment

# 3. Growth of Area and activities undertaken during the year:

### 1. Academic:

### i. Courses offered

- Sustainable development for business
- Sustainable manufacturing
- Environment and Safety Legislation
- Noise and E-waste management
- Fire and Safety Managements
- Disaster management
- Energy management
- EIA for developmental projects
- Business strategy for sustainability
- Shop floor waste management
- Business strategies for climate change
- Clean Development Mechanism and climate change
- Process Safety Management
- SHE audits system
- Environmental Modeling
- Sustainability Laboratory
- Business strategies for climate change
- Strategic CSR
- Sustainable operation and management





EEM area organised "ISEM Conclave" on the eve of National Safety Week on 6<sup>th</sup> March, 2019. The Pannel members were Mr. Viren Shukla, VP, Vodafone; Mr. Ved Prakash Tiwari, Reliance Infrastructure Ltd; Mr. Sunil Bailwar, VP, Hindalco Industry Ltd.





EEM Area, NITIE and U.S. Consulate, Mumbai organised an Interactive session on "Water Management Policy and Sustainable Water and Sanitation Systems "by American Fulbright Scholar, Zachary Burt, Columbia University, USA on August 8, 2018.



 ${\it EEM Area organised Circular Economy Interactive session during Green Lantern, Avartan}$ 



### 2. Research:



EEM Area, NITIE organised a round table Interactive session on "Nanotechnology and Environment" by Fulbright Prof., Dr. Achintya Bezbaruah, from North Dakota State University, USA on August 24, 2018.

### 2.1 Externally sponsored research projects

- Anju Singh: Completed SARASWATI Project successfully
- Anju Singh (PI): European Commission DST sponsored network research project: Saraswati 2.0 Identifying best available technologies for decentralized waste water treatment and resource recovery. Project is one of the only 7 projects funded for India EU water initiative pan India and EU. Awarded in current year. Funds awaited.
- Anju Singh, Seema Unnikrishnan, Shirish Sangle, Sushmita Aghalaya (PI): Bombay

- Chamber of Commerce and Industry BCCI: project on Enhancing water responsibility of Indian companies, ongoing.
- Anju Singh, Sushmita Aghalaya (PI):
  Bombay Chamber of Commerce and
  Industry BCCI: project on Benchmarking
  of companies for carbon emissions,
  ongoing.
- Anju Singh (PI): Coordinator RFCC project "Evaluation of climate change impacts and suitable adaptation strategies for crop production and is environmental and economic implications in vulnerable regions of Thailand and India" sponsored by Regional Framework on Climate Change (RFCC), France and in partnership with Asian Institute of Technology (AIT) Bangkok, ongoing.
- **2.2 Ph.D. Awarded:** Sheetal Kamble was awarded PhD and Mahesh Dalvi submitted thesis in year 2018-19.
- 2.3 Journal Publications: 20 Publications in reputed journals
- 2.4 Conference publications: 16 paper presented in reputed conferences



NEC, CESE, IIT Bombay Conference, Jan 1-2, 2019



## 2.5 Workshops/conferences organized:

 Organized Circular economy Roundtable Bombay Chamber of Commerce & Industry, Mumbai organized by the Centre for Environmental Studies (CES) & the Centre for Supply Chain Management (CSCM), NITIE and co-partnered by the Bombay Chamber of Commerce &

- Industry (BCCI), the Ekonnect, Circular Economy Alliance Australia (CEAA) and Austrade.
- Organized Circular economy Roundtable as part of Productivity Week Celebration
- SARASWATI Stakeholder workshop on sustainability indicators in May 2018



SARASWATI – Stakeholder workshop on sustainability indicators in May 2018

### 3. Outreach:

3.1 Conducted 6 UBPs on "Sustainability, Safety, Risk Analysis and Disaster Management" for major companies like IOCL, BPCL and HPCL, IHCL etc.



"IHCL sustainability leadership development training program" for Taj group of hotels, 18-22 Feb.2019 @NITIE, Mumbai.



EUROMA 2019 Gothenburg Sweden







Circular Economy roundtable with BCCI and Austrade

### 3.2 Prof. Seema Unnikrishnan

- Was Awarded with the Best Professor In Environmental Engineering Studies during the 11<sup>th</sup> DNA Innovative Education Leadership Awards on 16th February, 2019 at Taj Lands End, Bandra,
- Gave a presentation as an Expert speaker on "Emerging Safety and Environmental legal Requirements" during the Tata Best Practices Conclave on Safety and Health on Jan 29th and 30th 2019 at Taj, Vivanta President. Mumbai

### 3.3 Prof. Anju Singh

 The paper co-authored by Anju Singh was selected as Editor's Choice paper for the series for Water Science and Technology and is made Open Access (at no charge to authors) Environmental and economic performance evaluation of municipal wastewater treatment plants in India: a life cycle approach Water Sci Technol (2019) 79 (6): 1102-1112.

### 3.4 Prof. V.V. Gedam

- Attended QIP on "Sustainable Engineering: Theory and Practice" @ IIT, Bombay, 3-7 December 2018.
- Attended one day international symposium on "Circular economy on plastic"@ IIT, Bombay on 15 March, 2019.
- Participated in 2nd International Conference on Recent Trends in Bioengineering (ICRTB 2019), 16th February 2019, Pune.

### 4. Achievements of area/area member:

IOSH reaccreditation in 2017 for the PGDISEM programme for five more years.



## **ECONOMICS AND STRATEGY**

### Introduction to the area:

Economics and Strategy is one of the key academic areas having link with all post graduate programmes of NITIE. The area combines two broad disciplines, viz. Applied Economics and Strategic Management. The faculty members from the area have teaching and research interests in a wide variety of subjects like microeconomics, macroeconomics, environmental economics, international economics, developmental economics, strategic management, international business strategy, corporate and business laws, economics of innovation etc. In addition to offering a few courses like Managerial Economics and Strategic Management, which are common to all programmes, the area has a large number of programme specific as well as open electives.

The faculty members undertake theoretical and empirical research on a large number of inter-disciplinary areas like industry analysis, economic environment of business, labour markets, natural resource management, climate change and vulnerability, carbon markets, strategic leadership, globalization and economic competitiveness, international business strategy, environmental valuation, discrete choice experiments, management of NPAs in banking sector, competition policy, corporate governance etc. The area faculty members are also organizing regularly several Management Development Programmes (MDPs) for the working executives from both public and private sectors. Some of the popular topics of MDP are Managerial Decision Making, Managerial Skills for Technical Personnel, Strategy & Leadership Development for Managers, Corporate Performance Measurement, Economic Tools for Managers, Productivity, Efficiency and Business Forecasting etc. The area has the expertise in offering need based management consultancy in performance evaluation & design of incentive scheme, economic impact analysis and policy evaluation, manpower planning, strategic consultancy etc.

### **Core Course**

### Fellow Programme

- Macroeconomics
- Stream specific course (Major area I): Microeconomics: Theory and Applications
- Econometrics
- Credit seminar-based stream specific course (major area-II): Modern Indian Economy
- Stream specific course (Minor/Major area -III): Global Economics/ Industrial Organization
- Other approved electives: Corporate Governance
- Stream specific course (Major area I): Strategy and Organization

### PG level programmes

- Managerial Economics
- Strategic Management
- Legal Aspects of Business

### **Electives Courses**

- Macroeconomic Environment and Policy
- Global Trade & Institutions
- Public Systems and Policy
- Business Analysis and Econometric Applications
- Economics of Strategy
- Industrial Organization
- Economics of Regulation

- Resource Economics
- Environmental Economics
- Economics of Climate Change
- Carbon Market Analysis
- International Business Strategy
- Mergers and Acquisition



Area Faculty					
Prof. Vijaya Gupta	Prof. Utpal Chattopadhyay	Prof. Som Sekhar Bhattacharyya			
Prof. Binilkumar Amarayil Sreeraman	Prof. Poonam Singh	Prof. Mainak Mazumdar			

Name of the faculty	Area of research	Current research topics	
Prof. Vijaya Gupta	Environmental and Agricultural	Analysis of adaptation strategies in	
Professor in Economics	Economics-	agriculture due to climate change in	
	Valuation of intangibles,	Bihar	
	Environmental Kuznets curve,	The impact of climate change on	
	Assessment of vulnerability due to	Agricultural productivity in Bihar	
	climate change,	Carbon trading in personal transportation	
	The impact of climate change on agricultural productivity and revenue,	CDM in Orissa	
	Carbon trading	Productivity analysis of cement industry	
		Cost optimisation of mobile towers in the	
	Productivity analysis	telecom sector	

### **Book Chapters**

Barun Kumar Thakur and Vijaya Gupta, (2019), Arsenic-contaminated drinking water and the associated health effects in the Shahpur blocks of Bihar: A case study from five villages, in (Ed.) Ali Fares and Sushant K Singh, *Arsenic water resources contamination*, a part of book series *Advances in water security*, Springer International

Gupta Vijaya, (2019), Economic Policy Making in India and the Scope of Entrepreneurship led Development, in 'Indian Entrepreneurship and Innovation -The Current State of Affairs' Editor Jay Mitra, Springer, in press.

Name of Faculty	Area of Specialisation	Current Research Topics
Prof. Utpal Chattopadhyay Associate Professor	Managerial Economics, International Economics, Economics of Strategy.	Globalisation and Global Competitiveness Economic Environment of Business International Joint Ventures Micro, Small and medium Enterprises (MSMEs)



### **Book Chapters**

Vellela, Paramasivan S., Madala, Mani K and Chattopadhyay, Utpal (2018), Econometric Analysis of Growth Inclusiveness in India: Evidence from Cross-Sectional Data in Bhanumurthy N.R, Shanmugan, K, Nerlekar, Shriram and Hegade, Sandeep (eds.), *Advances in Finance & Applied Economics*, Springer, Singapore, pp 19-38.

Chattopadhyay, Utpal (2018), Go Solo, Grow Fast: Hyundai Motor's Mantra for Success in Indian Market in Dey, Ajoy Kumar and Thatchenkery, Tojo (eds.), *Leveraging Human Resources for Harmonizing Management practices and Fostering Entrepreneurship*, Bloomsbury Publishing India Pvt. Ltd., New Delhi, pp 206-219.

Name of Faculty	Area of Research Specialization	Current Research Topics
Prof. Binilkumar	Natural Resource Economics,	Mobility choices of Urban Dwellers –
Amarayil Sreeraman	Economics of Renewable Energy,	Problems and Prospects, Stakeholders
(Assistant Professor)	Mobility Issues of Metropolis, Regional	Preferences over adopting Electric
	Innovation and Cluster Competitiveness,	Vehicles (EVs) in India Economic
	Retail Economics,	Valuation of Environment and Natural
		Resources, Regional Innovation Systems
		and Competitiveness among Food
		Processing Clusters

### Research Projects Undertaken

Prof. Binilkumar Amarayil Sreeraman is undertaking a MSME Cluster research study (As PI) along with Prof. Karuna Jain (Co-PI) on "Study of Economic performance and Competitiveness of MSME Clusters: A case of Food-processing Clusters in Nashik, Maharashtra with a financial grant of Rs 8 Lakhs from Centre for Global Competitiveness of MSMEs NITIE.

### Outreach

Prof. Binilkumar Amarayil Sreeraman is cosupervising a PhD student in NIT Mizoram in the area of Natural Resource Economics. Prof. Binilkumar Amarayil Sreeraman is the editor in Chief of the Journal Udyog Pragati the journal for Practising Managers.

Prof. Binilkumar Amarayil Sreeraman is a reviewer of Sage, Elsevier and Routledge Journals

### Prof. Poonam Singh

#### Outreach

UBP on Statistical Process Control for Sterlite Technologies, March 11-12, 2019

UBP on Time and Motion Study, February 6-8, 2019 at Seamex, Mumbai

Name of Faculty	Area of Research Specialization	Current Research Topics
Prof. Som Sekhar Bhattacharyya (Associate Professor)	Strategic Management International Business Strategy Mergers and Acquisition Corporate Social Responsibility	International Corporate Social Responsibility Micro foundations theory Collaborative strategy



### FINANCE AND ACCOUNTS

### a) Introduction to the area:

Accounting and Finance Area brings rich insights into students' perspectives enabling them to have a wholesome financial understanding of business. Besides being an important business function, the area adds value to training and consulting initiatives of NITIE. The Area is an important stakeholder in the Excellence Centre for SME competitiveness and Entrepreneurship. Given the vision of the Institution to be a knowledge partner to industries Finance and Accounting area is poised to play a vital role because of the applied research focus of the area.

### b) List of Area members and their specialization:

Currently, the area has four faculties, each of them pursuing diverse research interests in their respective areas of interest. Following are their details.

S.No	Faculty	Focus Area	Spectrum of Work
1. Prof. Venkateswarlu (Professor)		Risk Management Corporate Finance Quantitative Finance Regulatory Risk, Cost of Capital and Valuation Project Finance	Teaching, Training & Research Teaching, Training & Research Research Teaching
2.	Prof. K. S. Ranjani (Assistant Professor)	Accounting Financial Inclusion Project Finance	Teaching, Training, and Research Training and Research Teaching and Research
3.	Prof. Vipul Kumar Singh (Assistant Professor)	Financial Engineering, Applications of Derivatives in Project Management, Financial Markets	Teaching, Training, and Research
4.	Prof. Ajaya Kumar Panda (Assistant Professor)	International Finance, Applied Corporate finance, Financial Economics and Applied Econometrics	Teaching, Training, and Research

## Growth of the area and activities undertaken during the year:

1. Academic: In addition to the core courses, the area also offers numbers of electives to the students. Being small in size it always remains challenging for the area to offer new electives year-on-year. However, in AY 2018-19 area has offered many electives, that are heavily

subscribed by the students. Prof. Venkateswarlu offered Financial Risk Management, Prof Ranjani offered Strategic Cost Management, Prof Vipul offered (1) financial derivatives (2) Financial Time Series Modeling and Prof. Ajaya taught (1) Investment Analysis and Portfolio management (2) International Finance and Forex Management.



Following is the list of Core and Electives courses currently on roll of the area

#### **Institute Core**

### **Financial Accounting**

Course Objective: To orient students to accounting, make them aware of the basic concepts in accounting, enabling them to understand the accounting process and understanding Financial Statements.

### **Programme Core**

### Financial Management

Course Objective: Financial Management involves the study of different models of corporate financing and governance followed by several domestic and global firms. This course aims to give the basics of financial management and its environment to the participants. The course also aims to familiarize participants with the significant areas of corporate finance-investment, financing and distribution of income.

### **Electives**

# Investment Analysis and Portfolio Management

This course focuses on the investment decision-making from the perspective of the portfolio manager. Topics covered include the process of creating, maintaining, and evaluating the performance of professional investment portfolios. The course is designed for upper-level finance majors to provide them with advanced skills in equity and fixed-income portfolio construction and management, asset allocation, as well as cover advanced topics such as professional asset management, and alternative investments.

### International Finance and Forex Management

Course Objective: The course attempts to present a comprehensive view of the theories and the practical implications of various issues of the exchange rate and its management. It also deals with the models of exchange rate determination, International parity, and foreign exchange risk management aspects. The subject aims at preparing students to commence a fulfilling and effective carrier in forex management and International finance professions.

### **Derivatives**

Objectives of the course: The course primarily aims to acquaint participants/students with the basics of different types of financial derivatives instruments and focuses on various standardized derivative instruments traded globally. This course covers the fundamentals of financial derivatives instruments and their application for the pricing of different financial derivatives instruments. The specific objectives are as follows: To introduce the concepts of derivative and pricing mechanism. To illustrate the application of financial derivatives. To integrate the understanding of roles of the forward, futures and options contracts. To investigate interlinking of derivative products and risk management.

### Financial Risk Management

Objectives of the course: This course deals with how risks are quantified and managed by financial institutions. Among the topics covered are the nature of financial institutions and their regulation, market risk, credit risk, operational risk, liquidity risk, and the credit crisis of 2007.

### Financial Time Series Modeling

Objectives of the course: To introduce the concept of regression and to apply OLS (ordinary least square) method in Finance using Eviews or Excel. To able to identify the reasons as to why OLS (ordinary least square) method of regression will not always suffice for an analysis of time series data. To study dynamic structures and relationships between financial



variables. To carry out step by step process to identify the properties of a time series data by using E-Views or Excel. To be able to forecast to predict asset returns like treasury yield, corporate bond yield spread, etc. To introduce the concepts of ARCH, GARCH, VAR, ECM modeling.

### 2. Research:

Accounting and Finance area is looking forward to publish quality research papers indexed in

Scopus and Web of Science. In future, area would like to collaborate within and outside the area and produce research that would be multi-disciplinary.

### Case Study Published

1. Singh, V. K. (2018). Trading Derivatives Options Contracts: The Associated Risk and Potential. Emerald Emerging Markets Case Studies. https://doi.org/10.1108/ EEMCS-01-2018-0005



### **MARKETING**

### a) Introduction to the area:

Marketing is central to any business. The quintessential goal of any organization is customer acquisition and retention. Marketing provides insights for managing the marketing mix viz product, price, place and promotion; besides undertaking STP (segmentation, targeting and positioning) to achieve customer satisfaction. A well designed marketing leads to delighted and loyal customer. Marketing Faculty at NITIE having rich experience in teaching and research help students learn the latest concepts, practices and tools in marketing. Training and consultancy activities of marketing area help organizations achieve their goal of being 'customer oriented' and 'market focused'.

### b) List of Area members and their specialization:

Sr. No.	Faculty	Focus Area	Spectrum of Work		
1.	Prof. Manoj Kumar Jha	Marketing Management Business Marketing	Business to business Marketing, Marketing of Hi-Tech Products, Marketing Strategy		
2.	Prof. Neeraj Pandey	Pricing, Digital Marketing, B2B Marketing	Pricing of Products & Services, Digital Marketing, Consumer Insights, Healthcare Marketing		
3.	Prof. Neha Srivastava	Marketing Management, Consumer Behaviour, Brand Management.	Consumer behaviour models, Brand trust, Consumer information processing, consumer-based equity.		
4.	Prof. Ranjan Chaudhuri	Marketing Management, Retail Management	Retail Management, Global Marketing, Sales and Distribution Management, Organizational Marketing		
5.	Prof. Rekha D. Chikhalkar (On Sabbatical)	Marketing Management	Marketing Research, Marketing Management		
6.	Prof. Sanjeev Verma	Marketing Research, Marketing Analytics, Experiential Marketing	Customer Engagement, Customer Experience, Customer Centricity		

### c) Growth of Area and activities undertaken during the year:

### 1. Academic

The Marketing Faculty at NITIE have expertise in Advertising, B2B Marketing, Brand Management, Consumer Behaviour, Digital Marketing, Healthcare Marketing, International Marketing, Marketing Analytics, Marketing Research, Pricing, Retail Management, Rural Marketing, Sales and Distribution Management, Services Marketing and Strategic Marketing.

### Teaching - Courses currently offered in the area

Marketing Management, Advertising, B2B Marketing, Consumer Behaviour, Digital Marketing, Global Marketing, Healthcare Marketing, Marketing Analytics, Marketing Research, Pricing, Retail Management, Rural Marketing, Sales and Distribution Management, Services Marketing



## 2. Research

Profile	Details	Remarks
Faculty	06	Area Core
Fellows	05 / 08	Completed / Current

## 3. Research - Fellow (Awarded & Ongoing)

Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area / keywords
1.	Trisha Parekh	Prof. Manoj K.Jha	Brand Associations in Driving Customer Engagement- A Case of IPL	Industry	Customer Engagement
2.	Avinash Tripathi (Awarded)	Prof. Neeraj Pandey	Impact of Price framing on Willingness to Buy (WTB) of green products	Industry	Pricing
3.	Mugdha Y. Keskar (Thesis Submitted)	Prof. Neeraj Pandey	Development of Customer Satisfaction Index for measuring customer satisfaction of internet banking customers in India	Industry	Customer Satisfaction
4.	Preeti Nayal	Prof. Neeraj Pandey	Enhancing digital coupon redemption in the movie industry	Industry	Pricing
5.	Manoj Kharat	Prof. R D Chikhalkar / Prof. Manoj K Jha	Brand Management	Industry	Brand Management
6.	Vinita Singh (Awarded)	Prof. Ranjan Chaudhuri / Prof. Sanjeev Verma	Psychological Antecedents and Measurement of Online Apparel Buyer Intention-An Empirical Study of Tertiary Level Indian Students	Industry	Online Buyer Behaviour
7.	Siddharth Tripathi (Awarded)	Prof. Sanjeev Verma	Determinants of Engagement on Social Media: A Study of NGO's in Indian Education Sector	Industry	Customer Engagement
8.	Harish Suri	Prof.SanjeevVerma	Determinants of Experience Components that Co-create Value for Customer: A Study in Indian Healthcare Industry	Industry	Customer Experience



Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area / keywords
9.	Ashesh Das	Prof. Sanjeev Verma / Prof. Mainak Mazumdar	Customer Centricity in Indian SME's	Industry	Customer Centricity
10.	Brajesh Bolia (Awarded)	Prof. M.K. Jha / Prof. Sumi Jha	A Study of cognitive dissonance	Industry	Cognitive Dissonance
11.	Gitesh Chavan (Awarded)	Prof. Ranjan Chaudhuri	Performance Evaluation of Industrial Purchasing Function in EPCs	Industry	B2B Marketing
12.	Ritu Sinha (Awarded)	Prof. Ranjan Chaudhuri	An Empirical Study on Impact of Green Practices of Retailers on Shoppers' Green Patronage Intention	Industry	Green Buying Behaviour
13.	Kalyan Pappu Ram	Prof. Neeraj Pandey	Social Coupons	Industry	Pricing

## Area Publications - Conferences and Journals [2018-19]

Sr. No.	Contributions	Numbers
1.	International / National Conferences	08
2.	Journals	30
3.	Case studies	02

## 4. Outreach (including building Institutional linkages)

Sr. No.	MDP Title	Faculty Name
1.	Industrial Marketing	Prof. M. K. Jha
2.	Strategic Marketing for Competitive Advantage	Prof. Neeraj Pandey / Prof. Sanjeev Verma / Prof. Ranjan Chaudhuri
3.	Consumer Behaviour and Marketing Strategy	Prof. Neha Srivastava
4.	Competitive Pricing Strategy	Prof. Neeraj Pandey
5.	Sales Management for Enhanced Profitability	Prof. Sanjeev Verma/ Prof. Ranjan Chaudhuri
6.	Marketing Strategy for Industrial Products	Prof. M. K. Jha



5	Sr. No.	MDP Title	Faculty Name
	7.	Digital Marketing	Prof. Neeraj Pandey

### Any achievements of area members/area

### Manoj K. Jha:

• Awarded "100 Most Dedicated Professors" by World Education Congress in 2018

### Neeraj Pandey:

- Received ICSSR (Indian Council of Social Science Research) funded Research Program Project entitled "Implementing Universal Health System (UHS) in India: Issues, Approaches and Challenges"
- Best Management Faculty Award' for 2017-2018 by Bombay Management Association (BMA); March 15, 2019
- 'Outstanding Management Teacher Award' by AIMS International for 2018; January 3, 2019

### Ranjan Chaudhuri:

- Inside IIM.com Professor of the Year 2019
- All India Council for Robotics and Automation (AICRA) Lifetime Achievement Award 2019, Indian Institute of Technology Delhi
- Bharat Jyoti Award 2019, India International Friendship Society.
- Best Citizen of India Award 2019, International Publishing House, New Delhi.
- Indian Institute of Technology Kharagpur Director's Teaching Excellence Award 2018.

### Sanjeev Verma:

• 9Best Professor in Marketing Management Award by Higher Education Forum (HEF), 2018



## ORGANIZATIONAL BEHAVIOUR AND HUMAN RESOURCE MANAGEMENT

Our objective is to develop engineering, managerial and leadership capabilities of students and executives through specific focus on behavioral and HR functional aspects of organization.

### List of Area members and their specialization

Sr. No	Faculty	Focus Area	Spectrum of Work
1.	Prof. D. K. Srivastava	HR& OB, Principles of Management	Organizational Structure & Performance, Training & Development.
2.	Prof. S. K. Nair	OB & HR, Psychology	Job Redesign & Work Motivation, Psychological Assessment, Personnel Selection, Leadership, Positive Psychology.
3.	Prof. T. Prasad	Principles of organisation and Management, Entrepreneurship	Entrepreneurship, Developing entrepreneurial personality
4.	Prof. Nikhil K. Mehta	Communication, Ethics	Communication Challenges in institutional areas of interest, Interpersonal processes, Emotional Intelligence, Bhagavad Gita, Culture.
5.	Prof. Sumi Jha	OB and HR, Analytics	Leadership, HR analytics, Competency management, Organizational health and employee empowerment.
6.	Prof. Upasna A Agrawal	OB and HR, Communication, Career development	Work Events (Psychological contract, Workplace Bullying), Affective states (Emotions, EI, Trust, Justice, Organizational Politics) Gender, Work- Life Integration, Managing Individual Careers; Leadership; Innovativeness; Work Engagement
7.	Prof. Sumant K. Bishwas	Organizational behaviour and Strategic leadership	Human Resource Management, Strategic leadership, HR Analytics

### Growth of Area and activities undertaken during the year Academic Workload of Faculty Members

SN	Faculty	Allocations				
		Core	Elective	Total		
1	Prof. D. K. Srivastava	7.5	4.5	12		
2	Prof. S. K. Nair	6	5	11		
3	Prof. T. Prasad	6	6	12		



SN	Faculty	Allocations				
		Core	Elective	Total		
4	Prof. Nikhil K. Mehta	15	5.5	19.5		
5	Prof. Sumi Jha	13	10	23		
6	Prof. Upasna A Agrawal	12	6	18		
7	Prof. Sumant K. Bishwas	2		2		
				97.5 credits		

## Fellow Students award/Summer Internships/Three- or Six-Month Projects

	Academic				No. o	f Students			
No.	Activity	Prof. D. K. Srivastava	Prof. S. K. Nair	Prof. T. Prasad	Prof. Nikhil K. Mehta	Prof. Sumi Jha	Prof. Upasna A Agrawal	Prof. Sumant K. Bishwas	Total
1.	Fellowship awarded	NIL	1	NIL	NIL	2 (1 submitted)	NIL	NIL	03
2.	Summer Internship	8	8	8	8	8	8	8	56
3.	Three months PGDIM / PGDISM projects Field Project	04	04	04	04	05	05	05	31
4.	Six-month PGDIE PGDMM / PGDM projects	03	03	05	03	03	03	03	23
	Total	15	16	17	15	18	16	16	113

## **Present Fellow Students**

Prof. D. K. Srivastava	Prof. S. K. Nair	Prof. T. Prasad	Prof. Nikhil K. Mehta	Prof. Sumi Jha	Prof. Upasna A Agrawal	Prof. Sumant K. Bishwas
1	1	1.5	3	1	1	0.5



## **Publications of Faculty Members**

Faculty	Conferences	Journals	Case/ Case Studies	Newsletters / others	Book	Book Chapters	Total
Prof. D. K. Srivastava	02	01	00	00	00	00	03
Prof. S. K. Nair	00	03	00	00	00	00	03
Prof. T. Prasad	03	00	00	00	00	00	03
Prof. Nikhil K. Mehta	03	01	01	00	00	00	05
Prof. Sumi Jha	02	05	01	00	01	00	09
Prof. Upasna A Agrawal	02	12	00	00	00	00	14
Prof. Sumant K. Bishwas	01	00	00	00	00	01	02
Total	13	22	02	00	01	01	39

## Area Involvement in Institute Administration

S. N.	Name of the Faculty Member	Institute Administration
1	Prof. D. K. Srivastava	Chairperson: Health Care Management Committee, PRMS, Advertisement Committee
2	Prof. S. K. Nair	Professor-In-Charge Psychology Lab, Part-time CVO.
3	Prof. T. Prasad	Faculty Coordinator: Swacch Bharat Abhiyaan
4	Prof. N. K. Mehta	Prof. In-charge Communication Centre, Member-Hindi Rajbhasha Karyanvayan Samitee, VLFM Committee member –Admission, Chairperson officer's club.
5	Prof. S. Jha	Area Coordinator, Programme Coordinator -PGDIM, Coordinator, Case Development Center, Secretary NITIE Alumni Association, Member Consumer Insight Center, and Mind to Market Centre
6	Prof. U. A. Agarwal	VLFM Committee Member, Member Communication Centre

### **Achievements of Area Members / Area**

Prof. Sumi Jha received AIMS International women Management teacher award 2019.



# **ACADEMIC ACTIVITIES**

## c. Academic Infrastructure and Facilities

- Laboratories
  - a. Environmental Engineering Lab
  - b. Industrial Environment Lab
  - c. Physical Ergonomics Lab
  - d. Psychology Laboratory
- Library
- Computer Centre





## **ENVIRONMENTAL ENGINEERING LAB**

The Lab for Environmental Engineering was established in 1995, with the objective of Carrying out various research and sampling activities in the area of Environmental Engineering and Management. The lab was initially put up under MODROB [ Modernization and Removal of Obsolescence scheme] with assistance from AICTE

Coordinator of the Lab: Prof. Seema Unnikrishnan

Technical Staff in Lab: One MTS, Dilip V.Chauhan [shared by 3 labs]

### **R&D** Activities:

Project activities - Earlier the lab was used for Saraswati Sponsored Project Analysis work.

**Physical Facilities available in the Lab**: The lab is well equipped with the UV spectrophotometer, Gas Chromatograph, High Volume sampler and Total Organic Carbon Analyser.

### Lab Outcomes and Activities during the Year:

Demonstration of equipments to Post graduate students of the Industrial Safety and Environmental Management Course,

Facilities were earlier used for the sampling and analysis studies by the fellow students of NITIE.

Intellectual Property Created: Nil

No. Conferences / workshops organised : Nil



### INDUSTRIAL ENVIRONMENT LAB

The Industrial Environmental laboratory was established in 1990 with the objective and focus of research in the area of industrial pollution control. With growing impacts of industrial process on environment, impact assessment of these operations on air, water and soil environment become inevitable. To meet the above requirements, the industrial environment lab conducts monitoring of water, air quality and noise quality. It is also equipped for conducting analysis of environmental samples and for demonstration of environmental instrumentation to students and researchers. The lab is co-ordinated by Prof. Vidyadhar V. Gedam with one technical staff. The lab is actively seeking and submitting research proposals for external research grants.

**R&D Activities:** Experimentation and analysis under (SARASWATI) research project.

### Physical facility available in the lab:

Incubator Oven Water bath Muffle furnace Weighing balance Autoclave COD digester Noise dose meter Audio and sound level meter

### Lab outcomes

- The instruments and physical facility have been used during the year 2018-2019 to teach the students of the post graduate programme in Industrial Safety and Environmental Management (ISEM) for subjects like solid waste, water and waste water, hazardous waste, air and noise management, etc.
- The research activities of the centre of environmental sciences and the Supporting

- Consolidation, Replication and Upscaling of Sustainable Wastewater Treatment & Reuse Technology for India (SARASWATI) research project are being carried out with the help of this lab.
- The fellow and research scholars in Environmental Engineering and Management (EEM) area are also using the lab facility for their research. Noise & Hearing Measurement equipment in the Industrial Environment laboratory is used by the students of Post Graduate Diploma in Industrial Safety & Environmental Management (ISEM) to have "Hands on" experience for various courses in the Environment Health and Safety (EHS) area. The same is also used for demonstration to the Management Development Programme (MDP) participants in the EHS area.

Intellectual property created: Nil

Conference and workshop organised: Nil



Industrial Environment Lab



### PHYSICAL ERGONOMICS LAB

### Name of Prof. In charge: Prof. Rauf Iqbal

Ergonomics lab has: 01 faculty member, 03 Fellow students, 02 Research Assistant,

- Lab Outcomes: Research findings, Doctoral thesis, Published papers, Training courses, Industrial consultancy.
- 2. Intellectual Property Created: --
- 3. No. Conferences / workshops organised: --

### Centre R&D Activities:

### **Institute Sponsored Projects**

New Projects Ongoing Completed

■ 02 01

PhD completed: 01

### Teaching:

Subjects taught to PGP students:

- 1. Industrial Ergonomics
- 2. Ergonomics of Manufacturing
- 3. Work systems design
- 4. Facilities Planning
- 5. Industrial Engineering and productivity management

### Research:

Publication: 04 (International) in the-

- 1. Springer -01
- 2. Work-01
- 3. Journal of Medical and Biological Engineering 02

**Conference presentation**: 01 paper has been presented in the World Congress of International Ergonomics Association (IEA 2018) from 26 – 30 August 2018 in Florence, Italy.

### **Project:**

 Title: "Redesigning the palanquin system for Mata Vaishno Devi Shrine". Status of the project: Final deliverables new Palanquin and porters Jacket has been inaugurated by the Hon'ble Governor of J&K. Shri Satyapal Malik at Jammu. Inauguration function of deliverables of Palanquin project was organized by the Shri Mata Vaishno Devi Shrine Board at Matrika Auditorium, Shri Mata Vaishno Devi Campus, Karkryal, Karta. The Chief guest of the function was Hon'ble Governor of the Jammu and Kashmir and Hon'ble Chairman of the Shri Mata Vaishno Devi Shrine Board Shri Satya Pal Malik. Various high-profile dignitaries like, Dr. Devi Shetty Shri Simrandeep Singh IAS, CEO Shrine Board, Shri Vivek Verma, IAS, Addl CEO Shrine Board along with other dignitaries were present in the function.

Prof. Ashok K Pundir and Prof. Rauf Iqbal attended the inaugural function from NITIE Mumbai being nominated by the Director.

### Lab Activities:

- Lab experiment on Biomechanical analysis
  of work was done for the students of PEC
  Chandigarh in the centre on May 2018
  Anthropometric measurement was done on
  105 PGDIE and PGDMM students of NITIE on
  August 2018.
- 2. Training on Electromyography (EMG) and Gait analysis were done on March 2018.
- 3. Students from National Institute of Fashion Technology (NIFT) visited Physical Ergonomics lab and data was collected for ongoing project in the lab on January 2018.
- 4. HP scanner purchased for the centre.
- Hand grip dynamometer, Pinch gauge, weighing machine and tool kit were purchased for the centre.





- 6. Polar heart rate monitor (04 in number) purchased for the centre.
- 7. Pedoscan Installation was done in Lab.
- 8. New Dell Desktop purchased for the lab.
- 9. New HP printer Installation was done in the Lab.

## PALANQUIN PROJECT PHOTOGRAPHS



Inauguration of Porter's jacket by Hon'ble Governor of J&K, Shri Satyapal Malik



Inauguration of replica of new palanquin by the Hon'ble Governor



Prof. Ashok K Pundir receiving the appreciation from the Hon'ble Governor of J&K



Prof. Ashok K Pundir addressing in the function for handover of Palanquin to porters



Porter's jacket



Formal handover of new palanquin to the porters



## **PSYCHOLOGY LABORATORY**

The Psychology Lab was established in 1998 under the MHRD's Modernization and Removal of Obsolescence Scheme, 1997 with the objective of creating a repository (archive) of psychometric tests which can be used for psychological assessments of the students. This was envisaged to help in achieving the holistic development of the students in respect of their managerial competencies including their overall personality, interpersonal skills, leadership skills, group behaviour, and stress management.

The Psychology Lab can be managed in a professional manner only by a regular faculty at the Professor level having Ph.D. degree in Psychology and practical experience in psychological testing including personality testing and aptitude testing. The incumbent Professor-in-Charge of the Psychology Lab is Dr. Shreekumar K. Nair, who is Professor in the OB & HRM area and has acquired extensive experience in aptitude and personality testing while working in the Institute of Banking Personnel Selection (IBPS), Mumbai. He has also been involved in preparing written tests for the selection of fellow students and for the recruitment of various levels of officers and staff in NITIE.

The Lab has

Faculty Member	Nil	Part time Research Assistants	Nil
Fellow Students	Nil	Full time Research Assistants	Nil
Part time Research Associates	Nil	Technical Staff	Nil
Full time Research Associates	Nil	Research funding received	Nil

**Centre / Lab R&D Activities:** Project activities – Institute Sponsored & Industry Sponsored

### (1) Physical Facilities available in the Centre:

 a) Psychometric/psychological tests for assessment of intelligence, personality,

- and other psychological dimensions 71 nos.
- b) Apparatus/Materials for conducting experimental research in human cognition, learning and perception as well as for demonstrating certain psychological phenomena 42 nos.

### (2) Centre Outcomes:

- a) Helping the Faculty as well as Fellow students working in the area of OB and HRM to use the psychometric tests and questionnaires for their research.
- b) Using the tests for PGP, MDP & UBP classroom teaching by the OB and HR faculty.
- Using the psychometric tests in the c) classroom as a part of the self-awareness skill-building exercise. These tests are used to help the students in having a systematic understanding of their soft skills, attitudes and overall personality. The PGP courses for which the psychometric tests in the Psychology Lab are used include core courses such as Organizational Behaviour, Human Resource Management, and Business Communication as well as elective courses such as Positive Psychology in Organization, Cognitive Psychology, Theories & Assessment of Personality, Soft Skills Development, and Leadership Development.
- (3) Intellectual Property Created: Research papers of faculty and fellow students using the psychometric tests from the Psychology Lab.
- (4) No. of Conferences / workshops organised: Nil.



## **LIBRARY**

### **About:**

The National Institute of Industrial Engineering (NITIE) Library is a learning and knowledge resource center for the academic community of NITIE, since 1965. Keeping in view the increasing collection and service of the library, in 2016 library moved in the new premises at "Academic cum Library Building" with more space and facilities at three floors. The entire area of the new library is centrally air-conditioned with proper lights, adequate seating capacity, secured Wi-fi connection and other fundamental amenities. These all have made the library a happening place and comfortable for a long study.

The NITIE Library is enriched with the intellectually stimulating collections of Technical Books, Reference books, Journals (including print & online), Electronic databases, Educational Software, etc. in the fields of Industrial Engineering and its allied subjects. Since the Institute is with a residential campus, the library plays a vital role in providing information to staff, officers, and to the students.

### **Collection:**

The objective of NITIE library is to facilitate the creation of new knowledge through acquisition, organization, and dissemination of knowledge resources and providing value-added services. The total collection of the library is around 82384 which include Technical/Reference Books, Bound Volumes of Journals, Light Reading Books (in Hindi, English & Marathi language) and Complimentary Books.

The Library collection as on  $31^{st}$  March 2019 is as under:

Technical Books : 57191
Light Reading Books : P8023
Hindi Books : H2920
Marathi Books : M855
Complimentary + Free Books : C1440

• Technical Journals : 157 (44 Online;

66 print + Online; 47 Print)

• Semi Technical, Light Reading: 41 Journals & Magazines

• Bound Volumes : J11955

Library also has a rich coverage of 18 newspapers. Along with Hindi & English newspaper, it also subscribes to regional language newspapers such as Marathi, Gujarati, Tamil, Telugu, Malayalam, and Bengali.

### Other Subscriptions:

Apart from this NITIE library also subscribes to some important **databases** and **educational software**. The details are as under:

- 1. CMIE
  - 1.1 ProwessIQ
  - 1.2 Industry Outlook
  - 1.3 Economic Outlook
  - 1.4 States of India
- 2. EBSCO: Business Source Complete
- 3. Emerald Management Extra 312
- 4. Indiastat Database
- 5. EPWRF Time Series
- 6. Science Direct
  - 6.1 Business Management & Accounting
  - 6.2 Decision Science
  - 6.3 Environment Science
- 7. EBSCO Discovery Search
- 8. Grammarly Software: Writing Tool
- 9. Turnitin: Anti Plagiarism Software
- 10. Remote Xs



NITIE Library is one of the members of "eShodhSindhu Consortium for Higher Education Electronic Resources," an initiative of the Ministry of Human Resource Development (MHRD) under Centrally Funded Technical Institutes (CFTI) category. Through **e-ShodhSindhu** Nitie Library gets the following **e-resources**:

- 1. ASCE Journals Online
- 2. ASME Journals Online
- 3. Economic & Political Weekly
- 4. Institute for Studies in Industrial Development(ISID) Database
- 5. JGate plus (JCCC) electronic gateway to global e-journal literature
- 6. JSTOR
- 7. Oxford University Press
- 8. Springer Links 1700 Collection + Nature Journal
- 9. Web of Science Lease Access
- 10. World e-book library
- 11. South Asia Archive (SAA)

Library provides access to the all online resources including Library catalogue, i.e. "OPAC" (Online Public Access Catalogue) 24 X 7 within the campus.

# <u>Library Management Software and Security System:</u>

The Library has upgraded its library management software into "LIBSYS.10 – Web-centric Version". For circulation & security of library reading materials, the entire collection of NITIE Library is Barcode enabled along with the 3M security system.

### **Library Services:**

Following are the Library services:

- 1. Book Lending
- 2. Reference Service
- 3. Reprography Service
- 4. Inter-library loan Service
- 5. Overdue alert Service
- 6. CD-Mirroring
- 7. HBS Case Studies
- 8. Textbook procurement & distribution to PGP students
- The Library creates the Institute ID card using LIBSYS Software and distribute to PGP students.
- 10. Remote Access Facility

### **Library Timing:**

The library runs as per below schedule:

- Monday to Friday 9.00 am to 10.00 pm
- Saturday & Sunday 11.00 am to 7.00 pm
- Library Holiday Only on Institute's Holidays.

### **Library Team:**

Currently, the Library is managed by a team of 4 professional, 1 Library Clerks, 2 Administrative staff and 3 MTS. They collectively handle important library activities like Collection Development, Collection Maintenance, Circulation, Reference, and other Information Service.



## **COMPUTER CENTRE**

The Institute is equipped with the State of Art Computer Hardware and Software to meet its varied requirement of teaching training research, consultancy and developments. More than 400 personal computers with a wide range of processor, hard disks, monitors, keyboards, mouse and printers are maintained and kept very high uptime to various users. The networking system supports Internet Web surfing and E-mail services. Post Graduate students of Industrial Engineering, Industrial Management, Industrial Safety and Environmental Management, Project Management and Manufacturing Management, VLFM Program are being highly benefited in their assignments and projects handling. The latest versions of software like SPSS ver. 21.0, Stata, Statistic ver. 7 x and Systat Clementine Primevera, Matlab have been made available for various users at the Institute along with the Microsoft University Alliance Programme and SAP University Alliance Programme.

The Institute has gone into an agreement with Microsoft for their Microsoft Campus 3 subscription enrollment where in all users at Institute will use licensed Microsoft products.

Faculty Members and Officers at various departments have been provided with 4GB/8GB Pen Drives and USB based external portable HDD of 500GB/1TB. All Faculty Members have been provided with Laptops also.

Various printers like LaserJet Printers and multifunction Printers have been procured and installed at Faculty Member rooms and departments for their printing needs.

Wi-Fi connection has been provided in all the Hostels, Academic cum Library Building (ALB) so as to enable students to have the facility of internet in their rooms and around the Hostel.

The Institute has procured around 65 laptops with sufficient amount of RAM and Hard disk to support the various applications and assist Faculty Members in class rooms/conducting UBP Programmes etc.

The Institute has procured Cisco/HP Switches with a view to improve the existing networking infrastructure and provide optimal usage of the internet services to various users. Currently the Institute is utilizing the services of M/s. Railtel Corporation (8 Mbps Radio frequency) and 1 Gbps from National Knowledge Network (NKN) for providing bandwidth to the Institute. The Institute is also equipped with a Firewall of M/s Checkpoint.

The Centre has assisted all the users, PGP students, Fellowship Scholars, Faculty Members and the supporting service departments in their development works. The center facilitates uploading of various information like tender notices, students' results, MDP Programme schedules and has an in house developed Admission Portal for the admission of students to the various Programmes etc. on to Institutes web site. The Programme Section, Academic Section, Accounts Section, Administration Section. Placement Section and Library have been largely benefited from the Center's support. Maintenance of all Computer Equipment, LCD Projectors, Operating Systems and Application Software, are primarily supported by Computer Centre

# **RESEARCH CENTRES**

1. Advanced Manufacturing Centre of Prof. Milind Akarte Excellence (AMCE)

2. Mind 2 Market Prof. (Ms.) Sumi Jha

3. Centre for Supply Chain Management Prof. (Ms.) Sushmita Narayana

4. Centre for Technology and Prof. (Ms.) Ruchita Gupta Innovation Management

5. Centre for Ergonomics and Human Prof. Rauf Iqbal Factors Engineering (CEHFE)

6. Centre for Global Competitiveness of Prof. Mainak Mazumdar MSMEs (CGCM)

7. Centre for Environmental Studies Prof. Shankar Murthy

8. Centre for Case Development Prof. Nikhil Mehta

9. Centre for Knowledge Management Prof. M. K. Jha

10. NITIE Centre for Communication Prof. (Ms.) Upasna A Agarwal Studies (NCCS)

11. Centre for Consumer Insight Prof. Neeraj Pandey



## ADVANCED MANUFACTURING CENTRE OF EXCELLENCE (AMCE)

### Introduction:

AMCE (Advanced Manufacturing Centre of Excellence) – A DST project under FIST (Funds for Improvement of Science and Technology) – was established at NITIE during 2006 -07. As of today, the AMCE includes facilities as below:

#### 1. Software:

- One user license of AnyLogic Simulation software.
- b. 75 user licenses of Detonis Altizon IoT platform
- c. Witness 2006 Simulation software.
- d. CNC-Train, FMS-CIM, and M-Robot software.

### 2. Hardware:

- Reverse Engineering EIN Scan Pro handheld 3D Scanner.
- b. Ultimaker 3 extended Rapid Prototyping System (3D Printer).
- c. FMS setup including XL Mill, XL Turn,
  Aristo Robots, Automated Storage/
  Retrieval (AS/RS) systems, Automated
  Guided Vehicle (AGV), Automatic
  Assembly Station.

Recently, Prof. Milind Akarte has taken over the lab. Now, the lab has a team of five professors, namely Prof. Ravindra Gokhale, Prof. Balkrishna Narkhede, Prof. Sushmita Narayana, Prof. Vivek Khanzode, and Prof. Vivekanand Khanapuri. Some of the important activities carried out by the AMCE are as below:

• A research project on "Performance modeling of Digital Manufacturing firms" was carried out by Prof Verma, P., and Prof Mukundan and the final report for the same is already submitted to the Institute.

- Based on the above research project, a conference paper titled "Analytical investigation of cumulative capabilities sequence in a digital manufacturing firm" has been presented at SPJIMS, Mumbai, in 12<sup>th</sup> ASDIS conference. This conference paper is being further modified by the authors for the journal publications.
- Center facilities were introduced to NITIE fresher batch 2018-2020 in Abhi Sansakaran.
   Further, the AMCE facilities were also showcased to all the interested participants of the NCIETM-2018 conference held at and by NITIE, Mumbai. Besides, the facilities were also demonstrated during National Productivity week 2019, organized at the Institute.
- Prof. Mukundan R and Prof. Vivek Khanzode, AMCE center core faculty members participated in the VDMA Industry 4.0 event at Pune, June 2018.
- Mr. Harshad Sonar, Centre Research Fellow attended 2nd Cyber-Physical Systems Symposium held on 11 and 12 July 2018 at IISc Bangalore.
- AMCE conducted a half-day workshop on "Introduction to SysML, a system modeling language" on 20th October 2018 in collaboration with INCOSE, International council of systems engineering, India Chapter.
- 3D Print competition was organized for the NITIE students to 3D print a part during March 2019.
- A VIT, Pune student completed her Internship project in the area of FMS at AMCE under the guidance of Prof. B. Narkhede.





Following activities are proposed for the next year.

- Deployment of human resources to maintain the lab facilities, currently no human resources are available for routine activities, since last one year.
- To undertake the maintenance and upkeeping of the lab facilities. For example, Installation of Post-Air filter for the existing Air compressor line is in the AMCE lab.
- Spread the facility awareness among NITIE students and encourage them to use the facilities for case studies/projects works.
- Promote for the facility-based proposals from the AMCE team
- Offer Summer/winter internship to external UG /PG students
- Research Project titled "Additive Manufacturing for Competitiveness of manufacturing environment" is proposed.



## MIND TO MARKET

### **Centre Objectives:**

The centre for Mind to Market was established in year 2015 with the objective of

- To facilitate and encourage the student to conceive a product, design and develop and test it in real world to know first-hand how it fares in Market.
- This centre aims to source the idea and spur the best innovators to turn their innovation into sustainable, Growth-oriented Start-up.

The centre is headed by the centre co-ordinator Prof. Karuna Jain

The centre has 5 (no.) of faculty members, and full time Research Assistant 1(no.)

Centre/Lab R&D Activities: Project Activities-Institute Sponsored & industry Sponsored

### **Institute Sponsored Project:**

- 1. Project on IOT based Automobile emission testing sensor.
- 2. Study on workstation and work tools of Terracotta Handicraft Industry and design intervention

### 1) Physical facilities available in Centre:

- 11 dell precision tower 7810 and 11 dell full HD LED 4-inch monitor
- 5 Logitech webcam and speakers
- HP LJ printer M1136 mfp
- Conference table
- IOT kits
- 2 Lego kits
- Two white board and one pin-up board
- 5 Extension boxes

### 2) Centre Outcome:

- Centre RA Mr. Nikhil Ghag visited Bakery industry near NITIE and conducted a case study which was presented in IAMOT 2019 conference titled, "Technological intervention for bakery industry in India".
- Designing and manufacturing of following was done in Centre by using Centres 3D experience Dassault Platform:
  - o Ergonomically good Workstation
  - o Automatic and Manual Pottery wheel for terracotta industry.
  - o Trolley for material handling.
  - o Bhatti
  - o Temperature sensor for measuring the heat inside the Bhatti

### 3) Intellectual property created: NIL

### 4) No. of Conference/ Workshop Organized:

- 2 workshops organized in last one year.
  - 1. Design thinking workshop was conducted by centre in month of February 2019 by core team members Prof. Sanjeev Verma and Prof. Mukundan for all the NITIE students, in which around 15 students participated.
  - 2. A workshop on 3D experience platform on DElMIA and Some apps such as process control, ergonomic evaluation etc. was done by Mr. Gurudatta Desai from Dassault to fellow students of NITIE in month of February 2018.



### **Other Centre Activities:**

- Centre coordinator and centre RA visited
  Terracotta industry in Bankura, Kolkata for
  data collection of ongoing project in centre
  "Study on workstation and work tools of
  Terracotta Handicraft Industry and design
  intervention". Between 2-5 April 2018.
- 2. Procurement of Two white board and one pinup board for centre use.
- 3. Centre RA Mr. Akshay Ruikar visited terracotta industry in Kolhapur, Maharashtra for studying the workstation for the centre project.
- 4. Four session on Sensor and automation and hands-on were conducted in centre by Centre RA for PEC university in month of May 2018.
- Centre RA Mr. Nikhil Ghag and Mr. Akshay Ruikar attended workshop on AI and ML conducted by IEEE in NITIE, Mumbai in month of August 2018.



### CENTRE FOR SUPPLY CHAIN MANAGEMENT (CSCM)

#### Introduction:

The centre for CSCM was established in April 2014 with the objective of carrying out specialized theoretical and applied research on Supply Chain Management with participation by a multidisciplinary faculty and industry practitioners.

The centre is headed by the Centre coordinator: Prof. Sushmita Narayana Aghalaya (since April 2018).

The centre has

faculty	Fellow	Part time	Full time	Part Time	Full time	Technical
members	students	Research	Research	Research	Research	Staff.
		Associates	Associates	Assistants	Assistant	
6 (no.)	Nil (no.)	Nil (no.)	Nil (no.)	Nil (no.)	1 (no.)	Nil (no.)

Research funding received by CSCM from NITIE: Rs. 5,83,97,900 (for last 5 years)

Research funding received by CSCM from external agencies and industries: Nil

Centre R&D Activities: Project activities – Institute Sponsored & Industry Sponsored

	New Projects	Ongoing	Completed
Institute Sponsored Projects	Nil	1	Nil
Industry Sponsored Projects	Nil	Nil	Nil
Consultancy Projects	Nil	Nil	Nil

### Resources available at the centre:

- 1. Physical Facilities available in the centre: (Room no. OCA II F)
  - a. Hardware Purchases:

Item	Specifications	Estimated Cost (Rs.)	Status
Hard drive - Seagate	Size: 2 TB, Speed: 5400 rpm, Transfer rate: 5 GBPS USB type C, water resistant, on-site OEM warranty: 2 years	5,624	Procured
Printer - HP MFP 1136M	Technology: Laser, Paper size: A4, Type of printing: mono, Feed type: Platen A4, Scanning facility, Composite cartridge, Speed: 18 ppm, RAM: 8MB, on-site OEM warranty: 1 year	14,975	Procured
High performance desktop	19.5 TFT monitor, Intel i7-8700 processor, RAM: 16 GB, HD: 1 TB 7200 rpm SATA, OS: Windows, Wireless connectivity, Optical mouse, Standard keyboard, on-site OEM warranty: 3 years	1,00,000	Under the process of procurement
Regular desktop	18.5 TFT monitor, Intel i5+ processor, RAM: 8 GB, HD: 1 TB 7200 rpm SATA, OS: Linux/DOS, HDMI, Optical mouse, Standard keyboard, on-site OEM warranty: 3 years	40,000	Under the process of procurement
UPS	MOSFET/IGBT-PWM, Rating: 0.5/168, A/C single phase, 3-pin output	2,000	Under the process of procurement
Furniture	To be jointly procured with other centres		



b. Software Purchases: IBM ILOG CPLEX under procurement (3 licenses, approx. Value Rs. 2.75 Lakhs)

### 2. Centre Outcomes:

- a. 1 Paper from project code PE01321 titled "Improving Sustainability in Indian Manufacturing Supply Chains Through Supplier Relationship Management" by Prof. Nagesh Murthy, Prof. Karuna Jain and Prof. Sushmita Narayana presented during Production and Operations Management (POMS) International Conference 2019 held at Washington DC, USA.
- b. 1 Paper titled "Conceptual Framework for Selecting Cold Chain Technologies on Indian Industries" by Prof. Sushmita Narayana and Mr. Saumitra Lalsare presented during National Conference on Industrial Engineering and Technology Management (NCIETM) held at NITIE (Nov 30<sup>th</sup> to Dec 1<sup>st</sup>, 2018).
- A white paper on the event 'Women in Logistics and Supply Chain Management' seminar is in process.

### 3. Intellectual Property Created:

- a. 1 Paper titled "Conceptual Framework for Selecting Cold Chain Technologies on Indian Industries" by Prof. Sushmita Narayana and Mr. Saumitra Lalsare presented during National Conference on Industrial Engineering and Technology Management (NCIETM) held at NITIE (Nov 30 - Dec 1, 2018).
- b. 1 White paper on the event 'Women in Logistics and Supply Chain Management' seminar is in process.

### 4. No. of conferences / workshops organised:

 a. 1 seminar on 'Women in Logistics at Supply Chain Management', jointly with NITIE Centre for Communication Studies b. 1 workshop on 'Circular Economy' at BCCI, jointly with Centre for Environmental Studies

### **Activity completed:**

#### a. Research:

- 1) A Full Time Research Assistant Mr. Saumitra Lalsare was hired for the centre through the walk-in interview conducted on 06/08/2018, advt. no. SRIC/RA ADVT/2017-18//04 and had joined on 27/08/2018.
- 2) Demos of software were conducted as per below:
  - i). Wolfram Mathematica  $19^{th}$  September, 2018 in ALB CR 406.
  - ii). IBM ILOG CPLEX Optimization Studio - 03<sup>rd</sup> October, 2018 in ALB CR 405.
- 3) A paper was presented on the topic 'A Conceptual Framework on Selection of Cold Chain Technologies in Indian Industries' in NCIETM conference by authors: Mr. Saumitra Lalsare and Prof. (Ms.) Sushmita Narayana, NITIE.
- 4) Ongoing research includes a joint research project on 'Benchmarking Study on Supplier Relationship Management for Enhancing Sustainability in Supply Chains' with the University of Oregon
- 5) 2 Projects titled "Study and Simulation of Cold Chain Monitoring Technologies Suitable in Indian Industries" & "Risk in Supply Chain Management" have been approved in the centre meeting.

### b. Workshops:

1) A one-day workshop on Circular Economy was organized at Bombay Chamber of Commerce and Industry jointly by the Centre for Supply Chain Management (CSCM) & the Centre for Environmental Studies (CES) on January 8<sup>th</sup>, 2019.



Dr. Prasad Modak, of Environmental Management Center (EMC) provided an in-depth idea about Circular Economy and how it has evolved over the last 4 decades. Dr. Hemant Choudhary, Founder and Executive Director, Circular Economy Alliance Australia presented the CEAA and their 30 years' journey towards CE. Prof. (Ms.) Sushmita Narayana discussed how CSCM is working towards sustainability projects in reverse logistics and supplier compliance, while Prof. (Ms.) Anju Singh (CES, NITIE) presented the 38Rs related to CE. Also introduced was a work in progress web page on 'Indian Circular Economy Stakeholders' Platform' initiated by Prof. Anju Singh. The participants from various industries who attended were then divided in groups based on their sectors. They discussed and presented the potential for circular economy in various sectors, such as textiles, construction, automobiles, etc.



Circular Economy workshop- BCCI

#### c. Outreach:

1) **Memento design competition** for the centre was held on July 6<sup>th</sup>, 2018. Four core faculty of CSCM judged the competition and awarded the ranks. Top three teams were shortlisted and the PGP students' team of 'Abhishek Dash and Abhilash Garg' was selected as the winner of the competition winning the prize of Rs. 5.000.



Memento design selected for CSCM

2) A one-day seminar on 'Women in Logistics & Supply Chain Management' was held jointly with the NITIE Centre for Communication Studies (NCCS) at LR02, ALB on November 17<sup>th</sup>, 2018.

Women in leading positions in Supply Chain Management posts in India were invited to share their experience, to discuss the best practices, to motivate students towards careers in Supply Chain Management and to participate in a round table discussion. First two sessions were arranged in ALB LH02 and later for the round table discussion they moved to the Director's conference room.

In the first session 'My story', five invitees from different industries (Dr. Karuna Jain, Ms. Himani Kanwal, Ms. Harpreet A De Singh, Ms. Manisha Raisinghani, Ms. Samrudhi Utturkar and Ms. Jayashree), shared their career journeys with the audience with insights from the acceptance in the industry for women. In the second





WLSCM seminar at NITIE

session 'Best Practices', leading HR representatives from various companies such as Mondelez, Merck MSD, Tata Motors and J&J discussed best practices for attracting, mentoring and retain women in SCM positions. In the final round table, it was discussed about involving more women in supply chain management. An idea was shared about mentoring women students of NITIE by establishing collaboration between the institute and industry. It was concluded that there is a need of continuous discussion on diversity issues and creation of aspirations for women students.

Guest talk by Prof. Nagesh Murthy, **Operations** Management, Lundquist College of Business, University of Oregon, Eugene was arranged on December 10th, 2018 in ALB. In the first session, the meeting was arranged with the project faculty regarding the joint research project on 'Benchmarking Study on Supplier Relationship Management for Enhancing Sustainability in Supply Chains' (PE01321). Validation of the questionnaire and potential endorsement of the study with Indian associations was discussed. In the second session, Prof. Murthy made a presentation on his recent research- 'The nature of commitment to the supplier in terms of price & quantity considering social and environmental compliances' which is being considered for MSOM

journal. Later he had an interaction and mentorship session with PhD scholars in ALB 402.





Guest talk of Prof. Nagesh Murthy, University of Oregon, USA

4) Guest talk by Prof. Jayendran Venkateswaran: Guest talk by Prof. Jayendran Venkateswaran, Associate Professor, Industrial Engineering and Operations Research (IEOR), IITB was arranged by CSCM in CR 316, ALB at 2.30 pm on March 02th, 2019. The talk was based on the success of Million Solar Urja Lamp (SoUL) Programme (MSP)- project initiated by IITB and funded by Ministry of New and Renewable Energy, Government of India with a thought of 'Power to all'. Faculty of NITIE, research scholars, research assistants and students were present during the talk. Prof. Jayendran talked about the need for consumption of renewable energy sources over kerosene and its efficiency and shared insights on how the children in villages from many districts in India were not getting



enough light for studying, especially the districts from Rajasthan, Utter Pradesh, Bihar, Assam, Maharashtra states and some part of north-east India where the number was too low. He later discussed the design and cost of the solar-powered lamp that was developed at IIT Bombay for the SoUL programme. He explained about the supply chain network design and planning that resulted in the lamps reaching schools through self-help groups. In addition, he talked about the emerging concerns of repair and reverse logistics and data management in projects of such scale. CSCM hopes to work with the IITB team in supporting the research projects related to the SoUL programme in future.





Guest talk by Prof. Jayandran Venkateswaran, IIT Bombay

### Activity planned for 2019-20:

 Infrastructure: Upgradation of furniture in CSCM office, Purchase of System Dynamics Modelling Software (Vensim/Stella), Purchase of Data Analytics Software for SCM studies

#### b. Research:

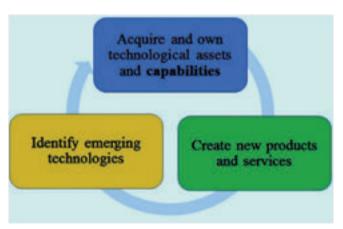
- Project titled "Benchmarking Study on Supplier Relationship Management for Enhancing Sustainability in Supply Chains" (PE01321) is to be carried forward from 2018-19.
- ii) 2 Projects titled "Study and Simulation of Cold Chain Monitoring Technologies Suitable in Indian Industries" & "Risk in Supply Chain Management" have been approved in the centre meeting.
- iii) A half-day seminar on "Supply Chain Management & Analytics in Industry 4.0" is planned to be organized in the first quarter of FY 2019-20 with practitioners and academicians.
- iv) In addition, at least 2 projects of medium term (1-2 year duration) and 1 longer term project (2-3 year duration) will be initiated in the year 2019-2020. Tentative areas are Technology in SCM, Cold Chains, Agri Supply Chains and Sustainable Supply Chains.
- c. Training: CSCM plans to organize at least 1 FDP on "Research Methodologies in SCM".
- d. Workshops: CSCM plans to conduct at least 3 workshops in 2019-2020 on "Sustainable Supply Chains in the Circular Economy", "Technology in SCM" and "Retailing & SCM in India".
- e. Conference: CSCM plans to co-organize a conference on "Retailing & SCM in India" in Oct-Nov 2019 along with other academic institutes in India and the Retailing Industry.
- f. Outreach: CSCM plans to conduct regular talks with leading academicians and practitioners, every month on the following topics: (i) Circular Economy & SCM, (ii) Technology (includes Big Data, AI, IoT) in SCM, (iii) Cold Chains, (iv) Tools & Techniques in SCM, (v) Agri Supply Chains.



### CENTRE FOR TECHNOLOGY AND INNOVATION MANAGEMENT

The Centre for Technology and Innovation Management (CTIM) at NITIE was established in **2015** with the objective of

- To identify future technologies
- To create a functional innovation pathway to achieve and deploy the future technologies.
- To develop strategic models to leverage such innovations for the growth of all the stakeholders concerned.



**Activities of CTIM** 

The centre is headed by the Centre coordinator-**Prof. Ruchita Gupta**.

The centre has 5 faculty members (Prof. Karuna Jain, Prof. Shirish Sangle; Prof. Utpal Chattopadhyay; Prof. Ruchita Gupta; Prof. Jinil Persis; Prof. Gaurav Kabra) and 1 Full-time Research Assistant (Ms. Pratima Bhagat)

### Centre R&D Activities:

The centre undertakes various research projectsboth in collaboration with other centres and in collaboration with external agencies.

#### **Institute Sponsored Projects:**

### **Ongoing Research Projects**

 Diffusion and Adoption of Mobile Value-Added Service Innovations in rural India (MVAS) (PI-

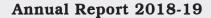
- Prof. Ruchita Gupta, Prof. Karuna Jain).
- Adoption of IoT driven applications in Healthcare: A study in India (Prof. Ruchita Gupta, Prof. Karuna Jain, Miss Pratima Bhagat).

#### Centre outcome:

- 1. The development of the proposed framework will lead to faster adoption and diffusion of mobile value-added services (MVAS) thus enhancing the productivity of farmers. This will enhance the agriculture productivity leading to the economic growth of the nation.
- 2. Innovation project has contributed by enhancing the knowledge and skills of the students by applying creative and breakthrough thinking approach.
- Designing and developing a helmet is an initial step contributing towards Make in India and making the society safe.
- Ruchita Gupta (Gupta, R), Jain, K., and Jaiswal, D.K. (2018), "Adoption of Agricultural Mobile Value-Added Services in Rural India". Accepted for Presentation in 27<sup>th</sup> International Association for Management of Technology Conference - IAMOT 2018, Towards Sustainable Technologies and Innovation, The Aston Business School, Birmingham, UK

### Conferences/Workshops Organised:

- CTIM co-hosted Management of Intellectual Property Rights and Strategy (MIPS) 2018 in collaboration with MHRD IPR Chair and IIT Bombay on 31st Jan 2018 and 1st and 2nd Feb 2018.
- 2. Workshop on *Artificial Intelligence and Machine Learning (AI-ML)* conducted by IEEE Bombay Section on 10<sup>th</sup> Aug-11<sup>th</sup> Aug 2018.
- 3. Workshop on *Fast Track Innovation* conducted by Dr Osman Ahmed Principal





- Technical Advisor in Pacific Northwest National Laboratory on  $4^{th}$  Dec 2018.
- 4. MOTI (Pearls of Wisdom in Management of Technology and Innovation) Lecture series on
  - a) Advances in Modem Technology that enable connectivity, safety and adaptive
- driver assistance focus on automotive industry conducted by Mr. Raj Pratha (Qualcomm) on  $19^{\rm th}$  Nov 2018.
- b) Interaction Design Thinking conducted
   by Dr. Pavan Soni (Innovation Evangelist
   and Founder Inflexion Point consulting)
   on 24<sup>th</sup> Sept 2018.



Interaction Design Thinking Workshop



MIPS 2018



AI ML Workshop



**IAMOT 2019** 



MOTI (Pearls of Wisdom in Management of Technology and Innovation)



# CENTRE FOR ERGONOMICS AND HUMAN FACTORS ENGINEERING (CEHFE)

Name of centre coordinator: Prof. Rauf Iqbal

The centre has 01 faculty member, 03 Fellow students, 02 Research Assistant,

- 1. Physical Facilities available in the centre: Equipment for ergonomics research
- 2. Intellectual Property Created
- 3. No. Conferences / workshops organised:

### Centre R&D Activities:

### **Institute Sponsored Projects**

New Projects Ongoing Completed

02 01

### **Project:**

 Title: "Development of dynamic anthropometry database of Indian population for designing industrial work system".

**Status of the project**: Field visit has been conducted in the Foundry Industries at Kohlapur area.

**2. Title:** "Biomechanical analysis of different modes of load carriage".

**Status of the project**: Ongoing project in the lab

**3. Title:** "Study on workstation and work tools of Terracotta Handicraft Industry and design intervention".

Status of the Project: Ongoing Project in the lab

#### Centre Activities:

- Research paper on "Study on workstation and work tools of Terracotta Handicraft Industry and design intervention" was presented by Mukesh Kr. Kamti in the 16<sup>th</sup> International Conference on Humanizing Work and Work Environment (HWWE2018) on December 2018 held in Trivendrum college of Engineering, India.
- 2. Research paper on "Study on duration of work and onset of humsan error in Cognitive task" was presented by Debasis Haldar in the 16<sup>th</sup> International Conference on Humanizing Work and Work Environment (HWWE2018) on December 2018 held in Trivendrum Engineering College, India.
- Field visit was conducted in Bishnupur, West Bengal for the project on "Study on workstation and work tools of Terracotta Handicraft Industry and design intervention" on April 2018.
- A Field visit in the Foundary Industries and Terracotta Industries was carried out on 26<sup>th</sup> May 2018 in Kohlapur, Maharashtra.



### CENTRE FOR GLOBAL COMPETITIVENESS OF MSMEs (CGCM)

About the Centre: NITIE's Centre for Global Competitiveness of MSME's (CGCM) is the research-cum-resource centre established with exclusive focus on competitiveness of micro, small and medium enterprises (MSMEs). The centre came in to existence on 27.03.2014. The main target groups of the Centre are myriad MSME units in the country, particularly the micro and small enterprises. However, academic community including NITIE students can also benefit from the resources generated by the centre.

### **Objectives of Centre**

The broad objective of the Centre is to create, accumulate and disseminate knowledge on diverse fields of competitiveness for enhancing economic competitiveness of Indian MSMEs.

The specific objectives of the Centre are as following:

- To create awareness among the students through workshops, training programmes and field visits.
- Undertake pilot studies in select MSME clusters and industry groups.
- Undertake research in new and emerging areas of MSME competitiveness.
- Collaborate with leading international organizations/bodies working in the field of global competitiveness.
- Disseminate knowledge through conventional channels like seminars, conferences, roundtable as well as in a user-friendly ICT platform, and
- Serve as a nodal resource centre on MSME Competitiveness.

The Centre is headed by the Centre coordinator Prof. Mainak Mazumdar.

Currently the Centre has 6 faculty members, 1 Full time Research Assistant, 1 part-time Research Assistant.

### **External Funds Received**

- The Centre received a financial aid of Rs. 50,000 from SIDBI for organizing the workshop, in MSME Entrepreneurship Conclave in Avartan 2018. The fund was utilized for giving Prize Money to the event Brain Child a product display competition for the start-ups.
- The centre received a financial aid of Rs. 1,00,000 from SIDBI for the Workshop organized on "Digitization of MSMEs: Opportunities and Challenges", on 2nd March 2019

**Centre / Lab R&D Activities:** Project activities – Institute Sponsored & Industry Sponsored

	New Projects	Ongoing	Completed
Institute Sponsored Projects Research Projects (Objective, Funding/grant)	5	4	1

# The Centre has funded the following research projects:

- a) A study of Competitiveness of Textile Cluster-Project Investigator (PI) Prof. Utpal Chattopadhyay and Co-PI Prof. Mainak Mazumdar. Total Fund 10 lakh
- b) Scope and Challenges of Small and Medium-Sized Enterprises in Leather Cluster; A Primary Study in Maharashtra Region. PI Prof. Ajaya Kumar Panda and Co-PI Prof. Kanchan Joshi. Total Fund 6 Lakh



- c) Study of Economic performance and Competitiveness of MSME Clusters: A case of Food-processing Clusters in Nashik, Maharashtra. PI Prof. Binil Kumar and Co-PI Prof. Karuna Jain. Total Fund 8 Lakh
- d) Study on "Dynamics of 'Start-Ups' and Employment Opportunities: The Interplay of Public Policy, Technology and Finance for Micro and Small Enterprises in Maharashtra" Project PI - Prof. Mainak Mazumdar & Co-PI Prof. Karuna Jain. Total Fund 23 Lakh.
- e) Three NITIE students engaged for sixth month's research project on MSMEs. The title of study are as follows:
  - Study of Advanced Engineering & Allied Industries Cluster: A Case of Public Private Partnership Model under MSE -CDP Scheme.
  - ii. Understanding of Ziran India Turmeric Cluster and Study of Maitreya Advanced Engineering Cluster: A Case of Public Private Partnership Model under MSE-CDP Scheme.
  - iii. Study of Public Private Partnership Model: A case study of MSE - CDP Scheme -Textile Sector.

### (1) Physical Facilities available in the centre:

- Purchased HP Laser jet Color Printer, with scanning and Fax facilities.
- Purchased 2 Desktops, for the centre Research staff.
- Centre rooms are operational, since November 2018.

#### Resources Accumulated:

Electronic databases for use of NITIE Faculty & students:

- World Competitiveness Yearbook (WCY) online, IMD. Switzerland
- NSS, ASI and Economic Census data

### (2) Centre Outcomes:

The following activities are completed by the Centre:

- Organized a talk on "Export Challenges of MSMEs" by Dr. Justin Paul at NITIE on 1st Aug 2018
- Organized a **Debate Competition** on various issues and challenges of MSMEs, in AVARTAN-2018
- Organized a "Product Display Competition" for the Entrepreneurship start-ups, in MSME Entrepreneurship Conclave, under the umbrella of AVARTAN – 2018.
- Conducted training on Udyamimitra portal of SIDBI, provided to MSMEs and students attended the workshop on 02<sup>nd</sup> March 2019
- (3) Intellectual Property Created: NIL
- (4) No. Conferences / workshops organised:
  - Organized a Workshop on "Increasing MSME's competitiveness through innovation and entrepreneurship", in MSME Entrepreneurship Conclave, under the umbrella of AVARTAN- 2018
  - Organized a Workshop on "Digitization of MSME's: opportunities and Challenges", at NITIE on 02<sup>nd</sup> March 2019.



### Workshop 26th October 2018







### CENTRE FOR ENVIRONMENTAL STUDIES

### Introduction:

The Centre for Environmental Studies (CES) is working on the following research objectives Ecosystem management (state level) and Business and sustainability development (industrial sector level).

s. N.	Research Topic	Summary of project working on	Status
1	Critical review of INDCS of BASIC countries in Climate Change mitigation	Evaluated the 'Intended Nationally Determined Contributions (INDCs) of four BASIC countries. The countries have been evaluated based on the following parameters like the emission Intensity, Base year used, afforestation targets and renewable energy targets etc. A SWOT analysis has been done based on the identified criteria.	Completed
2	Sustainable Water Treatment Technologies (C-SWAT)	Worked on proposal of International Center for Sustainable Water Treatment Technologies (C-SWAT)	Completed and Sent
		Worked on metal oxide Nano composite synthesis for removal of heterocyclic from water	Completed
3	CDM implementation towards reduction of fugitive emissions	Worked on Comments given by reviewers and sent again to Journal Editor	Paper published in 2019
4	Life cycle assessment	Working on Waste Water Treatment & Thermal Power Plants	Completed
5	Potential of Recyclers for E-Waste Management in State of Maharashtra, India	A review of e-waste management systems of developed and developing countries. Also, presents an overview of India's current e-waste management scenario with a special emphasis on e-waste recycling treatment facilities in state of Maharashtra.	Presented in National Conference: Industrial, Urban, E-waste Management
6	Half day workshop on GCCS	Assisted in conducting (Co-ordination with various Dept.) a half day workshop on Global Conference on Cyber Space at NITIE	Completed

Since July 2017 the activities of CES has slowed down as the tenure ends and extension is awaited. There are no staff working under CES.



### CASE DEVELOPMENT CENTRE

#### Introduction:

The centre for Case Development was established on 12/06/14 with objective of facilitating learning-teaching in Industrial engineering and management through:

- Faculty by capturing their knowledge and experience gathered by Individual's consulting, training and other outreach activities into case studies
- Students by encouraging them with support of faculty members to convert select capstone and summer projects into case studies
- MDPs / UDPs , generating leads for case development
- > Theme based workshops for industry to generate case leads

The Centre is headed by Centre Co-ordinator Prof. Sumi Jha.

The Centre has 5 Faculty members and 1 full time Research Assistant and Rs 306.37 lakhs (for a period of 5 years).

**Physical Facilities available in the Centre:** Centre Research Assistant allotted a cubicle in Fellow Lab 2 and provided with Stationery Facilities

**Centre Outcomes:** 2 Workshops and a Case Trial conducted

Intellectual Property Created: NIL

### Number of Conference/Workshops Organised:

- Case Writing Workshop on January 16, 2019
   by Ms. Sangeeta Menon (Emerald Publishing)
- Case/Case Studies: Phenomenological and Grounded Theory Approach Workshop on February 23-24, 2019 by Dr. Anil Behal

### **Activity completed:**

- 1. Case Trial on the Third Eye Café Case on Aug 14, 2018.
- 2. Invited Cases for collection in CDC Repository on September 11, 2018.
- 3. Re invited Cases for Case Collection in CDC Repository on September 27, 2018.
- 4. Result analysis and identification of potential summer internship report that can be converted into cases and then invited Case/ Case Studies from students and faculty members. Send personal mails to all the professors with the names of the students with A/A+ grade in their reports so that they can encourage their students to write cases on November 15, 2018.
- 5. Workshop on Case Writing conducted by Emerald Publishing on January 16, 2019 (Photos Attached at the end)
- 6. Workshop on Case / Case Studies: Phenomenological and Grounded Theory Approach on February 23-24,2019 by Dr. Anil Behal (Photos attached at the end)
- 7. We are also looking out for the possibility of a Case Collection Book in co-ordination with Emerald a part of exploring possibilities.











No of Research Activities /Reports in the domain concerned: 2 Research Activities in Progress

External Grant Received: NIL

### **Fund Utilisation:**

Fund Utilised before: Rs 414726

Fund Utilised in the year 2018-19: Rs 462300

Total: Rs 877026.00

Contribution to the Body of Knowledge: No. of Research Articles/ Reports Produced: NIL



### CENTRE FOR KNOWLEDGE MANAGEMENT

#### Introduction:

The Knowledge Management Centre in NITIE has conducted research which is driven by very practical and very common problems. Centre has conceptually designed a KM system for some functional area of NITIE. Centre has published few research papers in the area of Adoption of Cloud computing.

### Research status in CKM is as follows:

- Designing and development of Institute Knowledge Management System.
- b) Modules for System Development.

### Designing and development of institute management system

Objective to establish: "Ensure the right knowledge is available to the right people at the right time"

### Knowledge Management System (KMS)

A KMS is a socio-technical system and set of subsystems and processes with the common purpose of managing knowledge processes. People and technology are necessary components of the system and it should be part of the organisation's integrated management system.

A KMS therefore must integrate a set of KM subsystems and processes so that they operate collectively as a system. Systems have a structure, behaviour, subsystems that are related to each other and processes that transform inputs into outputs. Inter-connectivity between the subsystems and processes is provided by organisational structures, people's behavioural relationships and tools.

In addition, management systems have a purpose and include monitoring and control subsystems.

People have a role in the management of knowledge. Operations such as the creation and sharing of knowledge should be operated by people with the appropriate behaviours governed by skills and attitude. Technology is another valuable part of a KMS as it includes technology-based tools which help people store, share and retrieve information.

### Key Design Criteria for a KMS

#### Criterion 1: Drivers and vision for KM

- KM is cost benefit driven:
- The degree of KM activity is determined by a demonstrable return on investment:
- KM is used to increase performance of the whole organisation in critical and key operational areas:
- KM strategy and vision is developed through engagement with the business, championed by a steering group with a broad representation and decisions endorsed by the Executive.

### Criterion 2: Initiative, control and resourcing

- Initiative, control and resourcing are dealt with in a unified way and through Communities of Practice (CoP);
- There is central resourcing for a comprehensive KM infrastructure, accompanied by local funding for additional services and functionalities;
- KM activities are coordinated by a central resource, so that a range of common tools and activities go towards meeting the requirements of both internal and external stakeholders;
- Beneficial KM activities are built into commercial contracts, where it is necessary;
- KM plans are coordinated and aligned;
- Funding levels are justified on maximising the return on investment over long time periods.



### Criterion 3: KM organisational design/KM roles & responsibilities

- There are informed, well-researched locally tailored initiatives, plus corporate programmes and standards:
- A central resource of specialized KM coordinators is drawn, on secondment, from different parts of the organisation, with experience of front-line operations. The size of this resource will depend upon the size and complexity of the organisation;
- KM processes are integrated into normal business processes, where level of effort is justified by the benefits to organisational goals. KM responsibilities and expectations are formalised at all levels in the organisation.

# Criterion 4: Connecting people, sharing, codifying and storing knowledge & information

- Codification activities are coordinated and those codifying knowledge are qualified to do so;
- Everybody contributes, however content is coordinated and quality assured by role-based CoP and groups;
- KM is based on a contextual analysis and strikes a balance between codification and diffusion of knowledge across the organisation's people; there is a specific connect/collect mix for each knowledge area.

### Criterion 5: The focus for KM efforts and time horizons

- KM priority timeframes concentrate on maintaining a corporate memory consistent with the enterprise;
- Analysis of the health of knowledge areas identifies a priority for all knowledge areas and assigns resources and actions according to need and benefit:

- Long-term knowledge needs are owned centrally and short-term knowledge needs are owned locally. and both are financed similarly to ensure long-term knowledge retention strategies are maintained;
- Ability to manage short, medium and long-term KM activities concurrently, using different tools and processes from a broad range of tools as appropriate to specific requirements.

### Criterion 6: Dealing with the organizational age profile and time to competence

 Regular knowledge audits are used to identify the need for, recruitment, training, codification, mentoring and learning to maintain knowledge health at planned levels.

# Criterion 7: Dealing with dependency on external knowledge

- The organisation is receptive to external sources of knowledge;
- Analysis reveals, through knowledge area health checks, where it is optimal to include wider corporate/national memory, partnerships with external suppliers and internal expertise.

# Criterion 8: Experts and Communities of Practice (CoPs)

- Organized subject-based CoPs, moderated by experts, are promoted;
- CoPs are widely distributed and clustered around experts and those with an interest in each knowledge area;
- Where critical dependencies on knowledge exist, these are identified and CoPs are created, supported by management to ensure continuity and mitigate the impact of individual knowledge loss.



### Criterion 9: Corporate memory

- Contextualized and agreed past and future memory needs are applied to knowledge areas;
- The corporate memory, consists of people, processes and technologies to store knowledge, and is designed to manage a range of different formats:
- The corporate memory combines documents, media and people and ensures their validity;
- Intelligent search capabilities give wide access to useful corporate memory documents.

### Criterion 10: Motivation and change

 Successful KM implementation relies on each and every individual understanding the

- benefits; a mandate by senior management may be necessary to expedite the changes at staff level required to make KM work;
- KM behaviours are part of a central competency framework, which can become 'the way we work here' as espoused by managers that lead by example;
- KM behaviours are encouraged through user friendly processes, systems and tools that make individuals' work less frustrating, more productive and more satisfying

We are in the process of Design and Development of the KM System for the Institute which will be completed soon.



### NITIE CENTRE OF COMMUNICATION STUDIES (NCCS)

**Objective**: Centre of communication was commissioned in 2009 with the following objectives:

- To organize workshops to facilitate students in enhancing communication and interpersonal skills.
- To set up a Communication Skills Laboratory that gives opportunities for students to improve their communication skills
- Conduct guest lectures featuring business experts and executives to learn about business practices

#### Members:

- a. Upasna A Agarwal, People and Performance
- Nikhil K Mehta, Human Communication & Ethics
- c. Sanjeev Verma, Marketing
- d. Prof Vivek Khanzode, Work system Design & Lan Manufacturing
- e. Prof KS Ranjani, Accounting, MSME & FINTECH

### Funding approved for the year: Rs 16.10 Lakh

Activity completed:

### Foreign Language Classes

• Spanish Language Classes: 20 participants enrolled for the Spanish Language course this year, and the course spanned 35hrs of classroom instructions covering five aspects of the language – Reading, Writing, Listening, Speaking and Grammar. In addition to these five main areas, the course also introduces students to the Spanish culture.

### **NITIE Toastmasters Club**

 NITIE toastmaster club conducted twentythree sessions across the year to enhance public speaking and leadership skills among students.

### Workshops

- Acing Placements Workshop: 25 Students enrolled for the workshop. The workshop primarily focused on preparing the students for GD and PI covering several areas such as self-awareness, commercial awareness & their preparedness for placements. Mock group discussions and mock interviews were conducted by industry specialists. Participants were given the feedback one on one basis.
- **Presentation Workshop**: 20 participants enrolled for the workshop was aimed to prepare students to enhance their presentation skills and idea-sharing in the corporate environment. The participants received valuable feedback and insights from the trainer.









Business Communication Workshop: The workshop primarily focussed on email writing skills. One-on-one hand holding ensured that all participants had gained the right knowledge from the workshops. 25 participants enrolled for the workshop.





Essentia Workshop: This workshop focused on imparting the necessary knowledge about corporate behaviour. It revolved around the nitty-gritty of proper presentation of oneself



in organizational occasions such as formal meetings, official get-togethers, etc. The students had an enthralling experience and insights that will help them in their professional career.









- Design Thinking Workshop: The workshop stressed on the importance of design thinking and its applications. Different phases of design thinking were introduced to the students exploring the case method. Students received an opportunity to solve real-life problems using design thinking.
- Tatva: Personality Development Committee comprising of NITIE students launched its quarterly circulated magazine Tatva: Life and Musings. NITIE Alumni share their experiences through Tatva. In addition faculty interviews and articles about their subject matter, experiences of PPO holders are also covered. Tatva brings in creative content such as prose, poetry, photographs, sketches sourced from the students of the different batches of NITIE.
- Enquesta: The quiz was aimed to keep students well-informed about the current events and to provide them with an opportunity to test their memory with industry trivia. Starting with one round online event, Enquesta has grown to be a finer event with online winners getting a chance to go head to head with the best in an offline round of trivia. This came to be named as Enquesta 2.0. It was a great success in terms of participation and feedback.



• What-If: It is a 3 Round event that evaluates your writing skills (Round 1), spoken communication (Round 2) and presentation skills (Round 3) on topics that are hypothetical and make an interesting topic for conversation. It is open to students across all batches and enables them to fine-tune their skills ahead of their all-important corporate interaction.





#### Outreach

NITIE hosts Women in Logistics & Supply Chain Management Seminar

Centre for Supply Chain Management and the NITIE Centre for Communication Studies organized the first one-day seminar for Women in Logistics & Supply Chain Management



(WLSCM) in India on Saturday, Nov 17th, 2018 at NITIE. Prof. (Ms.) Karuna Jain, Director, NITIE, highlighted that women are natural organizers and multi-taskers who can promote high levels of productivity in supply chains. Industry leadership speakers included Ms. Himani Kanwal (Director, Supply Chain, J&J Medical Devices), Ms. Harpreet A De Singh (Executive Director & Chief of Flight Safety, Air India Ltd.), Ms. Samrudhi Utturkar (Country Director, FinOrion Pharma Pvt. Ltd.), Ms. Jayashree Kunder (Associate Director, Trade & Distribution, MSD) and Ms. Manisha Raisinghani (CTO & Co-founder, Loginext). The speakers shared their personal journeys that have culminated in their leadership roles and their thoughts on the future for women in this field. Senior executives also shared the best practices taken up to improve diversity in this domain in organizations such as Mondelez International, Tata Motors, MSD and J&J. The seminar provided a platform for inspiring more diversity and inclusion in the male-dominated

profession. The discussions of the day acknowledged the role of family support and male mentors for women. Invited dignitaries also called upon the need to strengthen the pipeline for women in manufacturing and supply chain jobs in India through mentorship, training, research and partnerships between industry and academia.



WLSCM Session 1 - MY STORY





### CENTRE FOR CONSUMER INSIGHT

Consumer Insight Centre was established on February 15, 2018. The focus of the Centre is on "consumer" as a unit of analysis. The primary and secondary data repository of the Centre & its analysis would cover in depth study of current consumer preferences in specific industry and how the shift is happening by analyzing aggregate data (macro-trends) and disaggregate data (micro-trends). This would lead to new marketing practices and marketing policies for the organizations.

The centre is headed by the Centre coordinator: Prof. Neeraj Pandey (since February, 2018).

The centre has 5 (no.) faculty members, Nil (no.) Fellow students, Nil (no.) Part time Research Associates, Nil (no.) Full time Research Associates, Nil (no.) Part Time Research Assistants, 1 (no.) Full time Research Assistant, Nil (no.) Technical Staff.

Research funding received by Consumer Insight Centre from NITIE: Nil

Research funding received by Consumer Insight Centre from external agencies and industries: Nil

#### Centre Activities:

 Consumer Insight Centre, NITIE Mumbai collected data in Mandi 2018 on August 11, 2018 regarding customer engagement for sales of educational toys. The questionnaire was developed.



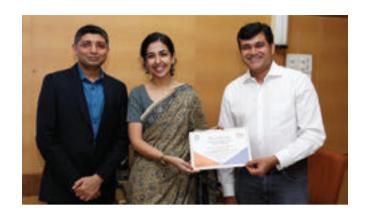
2. Consumer Insight Centre, NITIE Mumbai in collaboration with AIM (Academy of Indian Marketing) organized a two day Workshop on Consumer Insights entitled "Consumer Insights Research & Practice: State-of-the-Art and Future Trends" on November 1 & 2, 2018 at NITIE Mumbai. The participants consisted of faculty members and industry practitioners from all over India.

The resource persons for the Workshop were:

- Mr. Charles Assisi, Co-Founder, Founding Fuel
- Prof. Denish Shah, Barbara and Elmer Sunday
   Professor, Georgia State University, USA
- Prof. Neeraj Pandey, Coordinator, Consumer Insight Centre, NITIE Mumbai
- Mr. Nitesh Priyadarshi , General Manager, Consumer & Market Insights, Unilever
- Mr. Prakash Nedungadi, Group Head, Consumer Insights, Aditya Birla Group, Bangalore
- Mr. Saurin Shah,VP & Head, Consumer & Market Insights,Godrej Consumer Products Ltd.
- Mr. Shyam Sunder Suri, Founder & CEO, Magus (PGP IIM Ahmedabad), Mumbai









### The Workshop covered:

- Methodology for capturing qualitative, analytical, case study based, and experimental data for consumer insights
- Best practices for leveraging consumer insights in FMCG industry
- ➤ How to bridge gap between theory and practice of marketing by aligning research to contemporary marketing challenges of firms
- Contemporary tools for understanding, measuring and leveraging consumer insights



# OUTREACH: INSTITUTE – INDUSTRY COLLABORATION



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### MANAGEMENT DEVELOPMENT PROGRAMME (MDP)

### MANAGEMENT DEVELOPMENT PROGRAMME CONDUCTED DURING 01/04/2018 TO 31/03/2019

Sr. No.	Course Title	Duration	Starting Date	Course Leader(s)	Total No. of Participants
01.	Leadership & Team Building	03 Days	15/10/2018	Prof. D. K. Srivastava Prof. Upasna A Agarwal	08
02.	Managerial Skills for Technical Personnel	03 Days	29/10/2018	Prof. S. K. Nair	07
03.	Supply Chain Management	03 Days	04/02/2019	Prof. Rakesh D. Raut	04
04.	Inventory Management	03 Days	11/02/2019	Prof. Sanjay Sharma	05
05.	Managerial Skills for Technical Personnel	03 Days	11/02/2019	Prof. T. Prasad	06



### **UNIT BASED PROGRAMMES (UBP)**

Sr. No.	Name of Organisation	Course Title	Venue	Period	Days	Course Leader	No. of Parti.
1	M/s. Bharat Electronics Ltd.,	Industrial Engineering Programme	Bangalore	27th August 2018 - 05th October 2018	30	Prof. K. V. S. S. Narayana Rao Prof. Priyanka Verma	21
2	M/s. Indian Oil Corporation Limited, Mumbai	Risk Analysis & Hazop Study	NITIE	10th - 12th Sept 2018	3	Prof. Seema Unnikrishnan Prof. Rauf Iqbal	29
3	M/s. Indian Oil Corporation Limited, Mumbai	Risk Analysis & Hazop Study	NITIE	08th - 10th October 2018	3	Prof. Seema Unnikrishnan Prof. Shankar Murthy	21
4	M/s. Birla Management Centre Services Limited, Mumbai	Time and Motion Study	Airoli	06th - 08th Feb 2019	3	Prof. P. Acharya Prof. Poonam Singh	24
5	M/s. Hindustan Petroleum Corporation Limited, Mumbai	Risk Analysis & Emergency Preparedness - Batch - I	NITIE	18th - 20th Feb 2019	3	Prof. Seema Unnikrishnan Prof. Shankar Murthy	14
6	M/s. Indian Hotels Company Limited Mumbai	Sustainability Leadership Development Programme	NITIE	18th - 20th Feb 2019	5	Prof. Shirish Sangle Prof. Vidyadhar Gedam	29
7	M/s. Hindustan Petroleum Corporation Limited, Mumbai	Risk Analysis & Emergency Preparedness - Batch - II	NITIE	25th - 27th Feb 2019	3	Prof. Seema Unnikrishnan Prof. Shankar Murthy	16
8	M/s. Bharat Petroleum Corporation Limited, Mumbai	Safety Health, Environment & Security	NITIE	06th - 08th March 2019	3	Prof. Anju singh Prof. Rauf Iqbal	16
9	M/s. Sterlite Technologies Limited, Silvassa	Statistical Process Control	Silvassa - OFC Rakholi Plant	11th - 12th March 2019	2	Prof. Ravindra Gokhale Prof. (Ms.) Poonam Singh	22
					55.00		192.00



### **CONSULTANCY SERVICES**

### COMPLETED NITIE CONSULTANCY ASSIGNMENT (2018–2019)

Sl. No.	Name of the Organization	Area
1.	M/s. Sundaram Fasteners Limited	Industrial Engineering Study
2.	M/s. Coromandel International Limited, Gujarat	Organizational Structure & Manpower Assessment
3.	M/s. IOT Infrastructure Energy Service Limited, Mumbai	Manpower Optimization
4.	M/s. P. D. Hinduja Hospital & Medical Research Centre, Mumbai	Industrial Engineering Study
5.	M/s. RMC Readymix (India) Mumbai, Division of M/s. Prism Cement Ltd.	"Productivity / Time Motion Study"
6.	M/s. TVS Motor Company, Tamil Nadu	Operations Research Module

### CONSULTANCY IN PROGRESS Year 2019-20

Sl.No.	Name of the Organisation	Area
1.	M/s. Maithon Power Limited, Maithon, Dhanbad, Jharkhand	Manpower Assessment and Evaluation
2	M/s. TVS Motor Company, Hosur	Industrial Workplace Improvement Study Assignment – 3
3	M/s. TVS Motor Company, Karnataka	Operations Research Project Module
4	M/s. Prism Cement Ltd.	Manpower Study
5	M/s. Coromandel International Limited,	Manpower Study



### Memorandum of Understanding (MoUs)



### **ACADEMIC MOUS**

Veermata Jijabai Technological Institute, Mumbai

PEC University of Technology, Chandigarh College of Engineering, Pune

Indian Institute of Technology, Delhi

Indian Institute of Technology, Bombay

National Institute of Food Technology Entrepreneurship Management (NIFTEM), Kundli

Tata Institute of Social Sciences, Mumbai

Strategic Human Resource Management India Pvt. Ltd (SHRM), Mumbai

National Institute of Technology, Jalandhar

Malaviya National Institute of Technology, Jaipur

Indian Institute of Technology, Kharagpur NIT Raipur

# INTERNATIONAL ACADEMIC MOUS

Ecole centrale de Lille - France

University of Alabama - U.S.A.

University of Pittsburgh - U.S.A.

### INDUSTRY (MoUs)

TVS Motors, Hosur Larsen & Toubro Infotech, Mumbai



### **PROFESSIONAL MOUS**

National Knowledge Network - New Delhi Indian Institute of Industrial Engineering - Mumbai National Productivity Council - New Delhi

# FACULTY ACTIVITIES



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### **FACULTY RESOURCES**

#### DIRECTOR

Prof. (Ms.) Karuna Jain

### **PROFESSOR**

- 1. Prof. D.K. Srivastava
- 2. Prof. S.K. Nair
- 3. Prof. L. Ganapathy
- 4. Prof. R. Ramaswamy
- 5. Prof. K.V.S.S. Narayana Rao
- 6. Prof. A.K. Pundir
- 7. Prof. (Mrs.) Seema Unnikrishnan
- 8. Prof. (Mrs.) Vijaya Gupta
- 9. Prof. M. Venkateshwarlu (on lien from 1.4.19 to 31.3.21)
- 10. Prof. Sanjay Sharma
- 11. Prof. M K Jha
- 12. Prof. T. Prasad
- 13. Prof. V.B. Khanapuri
- 14. Prof. (Mrs.) Hema A. Date
- 15. Prof. Shankar Murthy
- 16. Prof. (Mrs.) Purnima S. Sangle
- 17. Prof. Shirish Sangle
- 18. Prof. Milind M. Akarte
- 19. Prof. Padmanav Acharya

### ASSOCIATE PROFESSOR

- 1. Prof. (Mrs.) R.D. Chikhalkar (on Sabbatical leave from 10.9.18 to 9.9.19)
- 2. Prof. (Mrs.) Anju Singh
- 3. Prof. Sachin S. Kamble
- 4. Prof. K. Maddulatey (on lien from 1.9.2017 to 31.8.19)
- 5. Prof. Sanieev Verma
- 6. Prof. Rakesh Verma
- 7. Prof. Ranjan Chaudhuri
- 8. Prof. S.K. Md. Rauf Iqbal

- 9. Prof. Nikhil Mehta
- 10. Prof. Vivek Khanzode
- 11. Prof. S.C. Panandikar
- 12. Prof. Utpal Chattopadhyay
- 13. Prof. Som Sekhar Bhattacharya
- 14. Prof. Neeraj Pandey
- 15. Prof. (Mrs.) Sumi Jha
- 16. Prof. (Ms.) Upasna A Agarwal
- 17. Prof. B. Koteswara Rao Naik
- 18. Prof. Balkrishna Eknath Narkhede

### ASSISTANT PROFESSOR

- 1. Prof. (Ms.) Hema Diwan
- 2. Prof. A.S. Binilkumar
- 3. Prof. (Ms.) Priyanka Verma
- 4. Prof. Mukundan R. expired on 27.3.2019
- 5. Prof. (Ms.) Ruchita Gupta
- 6. Prof. Ravindra S. Gokhale
- 7. Prof. Rakesh D Raut
- 8. Prof. K S Ranjani
- 9. Prof. Poonam Singh
- 10. Prof. Vipul Kumar Singh
- 11. Prof. Ajay Kumar Panda
- 12. Prof. (Ms.) Sushmita A Narayana
- 13. Prof. (Ms.) Kanchan Joshi D.
- 14. Prof. Mainak Mazumdar
- 15. Prof. Debabrata Das
- 16. Prof. Neha Srivastava (on contract)
- 17. Prof. Vidyadhar V Gedam (on contract)
- 18. Prof. (Ms.) D. Jinil Persis (on contract)
- 19. Prof. Ujjwal Kanti Paul **(on contract)** resigned from 18.3.2019
- 20. Prof. Sumant Kumar Bishwas (on contract)
- 21. Prof. Gaurav Kabra (on contract)



### AREA-WISE FACULTY LIST

### **Decision Sciences & Information Systems**

- 1. Prof. (Ms.) Hema Date
- 2. Prof. (Ms.) Purnima Sangle
- 3. Prof. Rakesh Verma Area Coordinator
- 4. Prof. R Ramaswamy
- 5. Prof. Sanjeev C Panandikar
- 6. Prof. Debabrata Das

### **Economics and Strategy**

- 1. Prof. Binilkumar A S
- 2. Prof. (Ms) Poonam Singh
- Prof. Som Sekhar Bhattacharya Area Coordinator
- 4. Prof. (Ms) Vijaya Gupta
- 5. Prof. Utpal Chattopadhyay
- 6. Prof. Mainak Mazumdar

### **Environmental Engineering and Management**

- 1. Prof. (Ms) Anju Singh
- 2. Prof. Hema Diwan
- 3. Prof. (Ms.) Seema Unnikrishnan
- 4. Prof. Shankar Murthy
- 5. Prof. Shirish Sangle
- 6. Prof. Vidyadhar Gedam Area Coordinator

### **Engineering Technology Project Management**

- 1. Prof. (Ms.) Karuna Jain
- 2. Prof. V B Khanapuri
- 3. Prof. Koteswara Rao Naik B
- 4. Prof. Mukundan R. expired on 27.3.2019
- 5. Prof. (Ms.) Ruchita Gupta
- 6. Prof. (Ms.) Kanchan Joshi Area Coordinator

#### Finance & Accounts

- 1. Prof. Ajay Kumar Panda Area Coordinator
- 2. Prof. (Ms) K S Ranjani
- 3. Prof. Vipul Kumar Singh
- 4. Prof. M. Venkateshwarlu

# Industrial Engineering and Manufacturing Systems

- 1. Prof. A K Pundir
- 2. Prof. KVSS Narayana Rao
- 3. Prof. L. Ganapathy
- 4. Prof. Milind M. Akarte
- 5. Prof. (Ms.) Priyanka Verma
- 6. Prof. Rauf Iqbal
- 7. Prof. Vivek Khanzode
- 8. Prof. Padmanava Acharya
- Prof. Balakrishna Narkhede Area Coordinator
- 10. Prof. (Ms.) Jinil D. Persis

### Marketing

- 1. Prof. M K Jha
- 2. Prof. Neeraj Pandey Area Coordinator
- 3. Prof. Ranjan Chaudhuri
- 4. Prof. (Ms.) R D Chikhalkar
- 5. Prof. (Ms.) Neha Srivastava
- 6. Prof. Sanjeev Verma
- 7. Prof. Ujjwal Kanti Paul upto 18.3.2019





# Organization Behaviour and Human Resource Management

- 1. Prof. D K Srivastava
- 2. Prof. Nikhil K Mehta
- 3. Prof. S K Nair
- 4. Prof. (Ms.) Sumi Jha Area Coordinator
- 5. Prof. T. Prasad
- 6. Prof. (Ms.) Upasna A Agarwal
- 7. Prof. Sumant Kumar Bishwas

# Operations & Supply Chain Management

- 1. Prof. K Maddulety
- 2. Prof. Rakesh D Raut Area Coordinator
- 3. Prof. Ravindra S Gokhale
- 4. Prof. Sachin S Kamble
- 5. Prof. Sanjay Sharma
- 6. Prof. (Ms.) Sushmita A Narayana
- 7. Prof. Gaurav Kabra



### **CONFERENCE / SEMINARS AND AWARDS**

### SEMINAR/CONFERENCE/WORKSHOP ATTENDED BY NITIE FACULTY/STAFF 1/4/2018 TO 31/3/2019

SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
1	Prof. M VENKATESHWARLU PROFESSOR	9th Financial Markets and Corporate Governance Conference	FMCG	05/04/2018 TO 07/04/2018 Melbourne Australia
2	Prof. RUCHITA GUPTA ASSISTANT PROFESSOR	27th International Conference on Management of Technology	IAMOT	22/04/2018 TO 26/04/2018 Birmingham England
3	Prof. MAINAK MAZUMDAR ASSISTANT PROFESSOR	"Development Convention 2018" at ISEC	"Development Convention 2018" at ISEC	24/04/2018 TO 26/04/2018 Bangalore
4	Prof. B. KOTESWARA RAO NAIK ASSISTANT PROFESSOR	1.(TEMSCON-2018), 2. (RAD MA-2018)	1. (TEMSCON-2018) 2. (RADMA -2018)	26/06/2018 TO 30/06/2018 (USA)/Milan, Italy)
5	LT. CMR. NISHA SINGH ASSISTANT REGISTRAR	Management Development Programmes (MDP) at IIM	Mngt. Development Prog. (MDP) at IIM	06/08/2018 TO 08/08/2018 IIM Indore
6	Prof. (MRS.)UPASNA A.AGARWAL ASSISTANT PROFESSOR	Academy of Management	Academy of Management	10/08/2018 TO 14/08/2018 Chicago, IIlinois
7	Prof. SMT. SEEMA UNNIKRISHNAN PROFESSOR	International Conference on Sustainable Development in University of Oxford Queen's College	Intnl. Conf. on Sustainable Development	14/08/2018 TO 15/08/2018 Oxford, UK
8	Prof. MAINAK MAZUMDAR ASSISTANT PROFESSOR	35th IARIW General Conference	35th IARIW General Conference	20/08/2018 TO 25/08/2018 Copenhagen, Denmark





SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
9	Prof. S.K. MD. RAUF IQBAL ASSOCIATE PROFESSOR	20th Congress International Ergonomics Association, (IEA 2018)	20th Congress Intern. Ergonomics Ass., (IEA)2018	26/08/2018 TO 30/08/2018 Florence, Italy
10	Prof. MANOJ KUMAR JHA ASSOCIATE PROFESSOR	5th Asia Business Responsibility Summit & 2nd Global Governance & Leadership Forum		10/09/2018 Hotel Taj Mahal Mum.
11	Prof. VB KHANAPURI ASSOCIATE PROFESSOR	5th Asia Business Responsibility Summit & 2nd Global Governance & Leadership Forum	5th Asia Business Resp. Summit & 2nd Global	10/09/2018 Hotel Taj Mahal Mumb
12	Prof. SMT. HEMA KAMBLE DATE ASSOCIATE PROFESSOR	5th Asia Business Responsibility Summit & 2nd Global Governance & Leadership Forum	5th Asia Business Resp. Summit & 2nd Global	10/09/2018 Hotel Taj Mahal,Mumb
13	Prof. SHIRISH SANGLE ASSOCIATE PROFESSOR	5th Asia Business Responsibility Summit & 2nd Global Governance & Leadership Forum	5th Asia Business Resp. Summit & 2nd Global	10/09/2018 Hotel Taj Mahal, Mumb
14	Prof. UTPAL CHATTOPADHYAY ASSOCIATE PROFESSOR	10th Economics & Finance Conference, Rome	10th Economics & Finance Conference, Rome	10/09/2018 TO 13/09/2018 Rome, Italy
15	Prof. (MRS) VIJAYA GUPTA PROFESSOR	10th Economics & Finance Conference Rome	10th Economics & Finance Conference Rome	10/09/2018 TO 13/09/2018 Rome, Italy
16	Prof. PRASHANT R SALUNKE ACCOUNTS OFFICER	PFMS/EAT Training 2nd Round	PFM /EAT Training 2nd Round	25/09/2018 New Delhi
17	Prof. MRS. LAKSHIMI NARAYANA SUPERINTENDENT	PFMS/ EAT Training (2nd Round)	PFMS / EAT Training (2nd Round)	25/09/2018 New Delhi
18	Prof.SMT.REKHAD.CHIKHALKAR ASSOCIATE PROFESSOR	ISER-445th International Conference (ICABMIS-2018)	ISER-445th International Conf. (ICABMIS-2018)	27/09/2018 TO 28/09/2018 Ottawa, Canada
19	Prof. RUCHITA GUPTA ASSISTANT PROFESSOR	Workshop on -BMA Management Development Program	Workshop on -BMA Mngt. Development Program	27/09/2018 TO 28/09/2018 BMA, Mumbai





SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
20	Prof. PADMANAV ACHARYA ASSOCIATE PROFESSOR			27/09/2018 TO 30/09/2018 Bhubaneswar
21	Prof. SACHIN KAMBLE ASSOCIATE PROFESSOR	Diamond Jubilee National Convention of IIIE (ICIEIND 2018)	Diamond Jubilee National Convention of IIIE	27/09/2018 TO 30/09/2018 Bhubaneswar
22	Prof. MUKUNDAN R. ASSISTANT PROFESSOR	3rd CII Summit on Innovation Ecosystem 2018	3rd CII Summit on Innovation Ecosystem 2018	04/10/2018 Mumbai
23	Prof. MUKUNDAN R. ASSISTANT PROFESSOR	OPC UA-platform enabler for Industries 4.0	OPC UA-platform enabler for Industries 4.0	22/10/2018 Pune
24	Prof. (MS.) JINIL PERSIS ASSISTANT PROFESSOR	OPC UA-platform enabler for Industries 4.0 organized by VDMA India	OPC UA-platform enabler for Industries 4.0	22/10/2018 Pune
25	Prof. NIKHIL K MEHTA ASSOCIATE PROFESSOR	ICFAL Business School	ICFAL Business School	01/11/2018 TO 02/11/2018 Hyderabad
26	Prof. NIKHIL K MEHTA ASSOCIATE PROFESSOR	ICFAI Business School	ICFAI Business School	01/11/2018 TO 02/11/2018 Hyderabad
27	Prof. NEERAJ PANDEY ASSOCIATE PROFESSOR	ANZMAC 2018 Conference	ANZMAC 2018 Conference	03/12/2018 TO 05/12/2018 Australia
28	Prof. MUKUNDAN R. ASSISTANT PROFESSOR	Asia Pacific Innovation Conference (APIC)	School of Economics, Delhi	13/12/2018 TO 14/12/2018 Delhi
29	Prof. S.K. MD. RAUF IQBAL ASSOCIATE PROFESSOR	16th International Conf. on Humanizing Work	16th International Conf. on Humanizing Work	14/12/2018 TO 16/12/2018 Trivandrum, Kerala





SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE	
30	Prof. PRIYANKA VERMA ASSISTANT PROFESSOR	51 Annual convention of ORSI & International Conf.	51 Annual Convention of ORSI & Inter. Conf.	16/12/2018 TO 19/12/2018 IIT Mumbai	
31	Prof. L GANAPATHY PROFESSOR	18th Global Conf. on Digitalization & Flexibility	18th Global Conf., on Digitalization	18/12/2018 TO 20/12/2018 IIM Lucknow	
32	Prof. A K PUNDIR PROFESSOR	18th Global Conference on Digitalization	18th Global Conference on Digitalization	18/12/2018 TO 20/12/2018 IIM Lucknow	
33	Prof. SUMANT KUMAR BISHWAS ASSISTANT PROFESSOR	18th Global Conference on Digitalization & Flexibility	18th Global Conf. on Digitalization & Flexibility	18/12/2018 TO 20/12/2018 IIM Lucknow	
34	Prof. SACHIN KAMBLE ASSOCIATE PROFESSOR	18th Global Conf. on Digitalization & Flexibility for Organizational Management and Transformation	18th Global Conf.	18/12/2018 TO 20/12/2018 IIM Lucknow	
35	Prof. MUKUNDAN R. ASSISTANT PROFESSOR	6th International Conference (ICBA) on Business Analytics		20/12/2018 TO 22/12/2018 IISC Bangalore	
36	Prof. DEBBRATA DAS ASSISTANT PROFESSOR	XXII Annual International Conference of the Society of Operations Management	XXII Annual Inter. Conf. of the Society	20/12/2018 TO 22/12/2018 IIM Kozhikode	
37	Prof. MILIND A. AKARTE ASSOCIATE PROFESSOR	12th Annual ISDSI Conference at (SPJIMR)	12th Annual ISDSI Conference at (SPJIMR)	27/12/2018 TO 30/12/2018 Andheri Mumbai	





SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
38	Prof. PRIYANKA VERMA ASSISTANT PROFESSOR	12th ISDSI International Conference	12th ISDSI International Conference	27/12/2018 TO 30/12/2018 Mumbai
39	Prof. DEBABRATA DAS ASSISTANT PROFESSOR	12th ISDSI International 12th ISDSI Inter. Conference in S.P. Jain Conf. in S.P. Jain Institute of Management		27/12/2018 TO 30/12/2018 Mumbai
40	Prof. MRS. SUMI JHA ASSOCIATE PROFESSOR	16th AIMS International Conference on Management (SIMS)	Symbiosis Institute of Mgmt. Studies	03/01/2019 TO 05/01/2019 Pune
41	Prof. NEERAJ PANDEY ASSOCIATE PROFESSOR	16th AIMS International Conference on Management (Symbiosis Institute of Management Studies)	(SIMS)	03/01/2019 TO 05/01/2019 Pune
42	Prof. SANJEEV VERMA ASSOCIATE PROFESSOR	"Driving Marketing Excellence through Experiences in Emerging Economics"	"Driving Marketing Excellence through Ex. Em. Eco. IMT	06/01/2019 TO 08/01/2019 Ghaziabad
43	Prof. POONAM SINGH ASSISTANT PROFESSOR	3rd JAAF India Symposium at Indian School of Business	3rd JAAF India Symposium	07/01/2019 TO 09/01/2019 Hyderabad
44	Prof. A K PUNDIR PROFESSOR	IEEE CCWC 2019 The 9th Annual Computing and Communication Workshop at University of Nevada	IEEE CCWC 2019 and Conf.	07/01/2019 TO 09/01/2019 USA
45	Prof. MRS. SUMI JHA ASSOCIATE PROFESSOR	5th International HR Conf. at K.J. Somaiya Institute of Mngt. Studies Mumbai	K.J. Somaiya Institute of Mngt. Studies	01/02/2019 TO 02/02/2019
46	Prof. GAURAV KABRA ASSISTANT PROFESSOR	International Conf. on Evidence based Mngt.at BITS Pilani, Pilani Campus	BITS Pilani, Pilani Campus	01/02/2019 TO 02/02/2019 Rajasthan
47	Prof. NEHA SRIVASTAVA ASSISTANT PROFESSOR	International Conference on Education and Social Sciences	International Conf. on Education & Social Sciences	12/02/2019 TO 15/02/2019 Singapore





SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
48	SMT. B.E. KORDAY SR. LIBRARY & INF. ASST.	2nd International Conference "Changing Landscape of Science and Technology Libraries	(CLSTL 2019) at IIT Gandhinagar	28/02/2019 TO 02/03/2019 Gujarat
49	Prof.(MRS.)UPASNAA.AGARWPMI ASSISTANT PROFESSOR	Conference at IIMK	IIMK Kozhikode	01/03/2019 Kerala
50	Prof. PRIYANKA VERMA ASSISTANT PROFESSOR	6th International Euroma Sustainable Operations & Supply Chains Forum	6th International Euroma Sustainable Operations	18/03/2019 TO 19/03/2019 Gothenburg, Sweden
51	Prof. ANJU SINGH ASSOCIATE PROFESSOR	6th International Euroma Sustainable Operations & Supply Chains Forum	6th International 18/03/20 Euroma Sustainable TO Operations 19/03/20 Gothenbu	
52	Prof. (MS.) D.JINIL PERSIS ASSISTANT PROFESSOR	3rd International Conference on Intelligent Systems, Metaheuristics & Swarm Intelligence at Male	3rd Intnl.Conf. on Intelligent Systems	23/03/2019 TO 24/03/2019 Maldives



# RESEARCH AND PUBLICATIONS

#### Research and Publications

- Akarte Milind (2018), Editorial: Understanding of industry performance from the perspective of manufacturing strategies, Journal of King Saud University – Engineering Sciences 30 (2018) 206, Special Issue: Industrial Performance Appraisal: Theory, Application and Future Directions
- 2. Sushobhan Dutta, Sanjib Kumar Das, Milind Akarte, Prioritization of success factors to sustain buyer-supplier dyadic relationship and its impact on business performance, Int. J. Logistics Systems and Management, Vol. X, No. Y, (Accepted)
- 3. B.S.Gandhare, Milind Akarte and Pradip Patil,
  Maintenance Performance Measurement A
  Case of Sugar Industry, Journal of Quality in
  Maintenance Engineering, Vol. 24 Issue: 1,
  pp.79-100, Emerald publication
- 4. Chaple Anup, Narkhede B E, Akarte Milind and Raut R.D. (2018), Modeling the Lean Barriers for Successful Lean Implementation: TISM Approach, International Journal of Lean Six Sigma, Emerald publication
- 5. Chaple Anup, Narkhede B E, Akarte Milind and Raut R.D. (2018), Interpretive framework for analyzing lean implementation using ISM and IRP modeling, Benchmarking: An International Journal, Vol. 25 Issue: 9, pp.3406-3442, Emerald publication
- 6. Sharma M, Gupta R., Acharya P, "Factors Influencing Cloud Computing Adoption for Higher Education Institutes in India: A Fuzzy AHP Approach", International Journal of Information Technology and Management, Accepted for Publication.

- 7. Ramkrishna Bharsakade, L. Ganapathy, and P. Acharya, "Prioritizing Muda for Flexibility in Healthcare: A Fuzzy AHP Approach", GLOGIFT Conference, 18-20 Dec, 2018, IIM Lucknow
- 8. Ramkrishna Bharsakade, P. Acharya, L. Ganapathy, "Modeling Critical Success Factors for Lean Healthcare Implementation using Interpretive Structural Model", NCIETM-2018, 30 Nov-01 Dec 2018, Nitie Mumbai
- Anand Sasikumar and Padmanav Acharya, "System dynamic modelling in productions systems: A research review", NCIETM-2018, 30 Nov-01 Dec 2018, Nitie Mumbai
- 10. Anand Sasikumar and Padmanav Acharya, "Challenges of implementing Lean manufacturing with a focus on Tyre industry" International Conference ICIEIND-2018, Bhubaneswar
- 11. Narkhede B.E., Ghadage Y.D., Raut R.D., Luthra Sunil (2019), "Study of Implication of Qualification and Experience in Perception of Risks and Barriers for Innovative Projects", International Journal of Mathematical, Engineering and Management Sciences Vol. 4, No. 2, 289–305, 2019 (Scopus indexed)
- 12. Gardas, B.B., Raut, R.D. and Narkhede, B.E. (2018) 'Evaluating critical causal factors for post-harvest losses (PHL) in fruits and vegetables supply chain in India using DEMATEL approach', Journal of Cleaner Production, Vol.199 No.1, pp. 47-61 (Scopus Indexed; Impact Factor: 5.651; Cite Score: 5.79; Publisher: Elsevier; DOI: https://www.sciencedirect.com/science/article/pii/S0959652618321425).
- 13. Gardas, B.B., Raut, R.D. and Narkhede, B.E. (2018) 'Reducing the exploration and



- production of oil: reverse logistics in the automobile service sector', Sustainable Production and Consumption, Vol.16 No.1, pp.141-153 (Scopus Indexed; CiteScore: 3.52; Publisher: Elsevier; DOI: https://doi.org/10.1016/j.spc.2018.07.005).
- 14. Gardas, B.B., Raut, R.D. and Narkhede, B.E. (2018) 'Modeling the challenges to sustainability in the Textile and Apparel (T&A) sector: A Delphi-DEMATEL Approach', Sustainable Production and Consumption, Vol.15 No.1, pp. 96-108 (Scopus Indexed; CiteScore: 3.52; Publisher: Elsevier; DOI: https://www.sciencedirect.com/science/article/pii/S235255091830006X).
- 15. Gardas, B.B., Raut, R.D., Jagtap, A.H. and Narkhede, B.E. (2018) 'Exploring the key performance indicators of green supply chain management in agro-industry', Journal of Modelling in Management. (Scopus Indexed; ABDC indexed Journal: 'C' Category; CiteScore:1.44; Publisher: Emerald Publishing Limited; https://doi.org/10.1108/JM2-12-2017-0139).
- 16. Raut, R.D., Gardas, B.B., Kharat, M. and Narkhede, B.E. (2018) 'Modeling the drivers of post-harvest losses-MCDM approach', Computers and Electronics in Agriculture (Scopus Indexed, Impact Factor: 2.427; Cite Score: 3.27; Publisher: Elsevier; https://doi.org/10.1016/j.compag.2018.09.035 ).
- 17. Narkhede, B.E. and Gardas, B.B. (2018) 'Hindrances to sustainable workforce in the upstream oil and gas industries-Interpretive structural modelling approach', *International Journal of Business Excellence*, Vol.16 No.1, pp. 61-81 (Scopus Indexed; ABDC indexed Journal: 'C' Category; Publisher: Inderscience Enterprise Ltd; DOI: https://dx.doi.org/10.1504/IJBEX.2018.094575).

- 18. Raut, R.D., Priyadarshinee, P., Gardas, B.B., Narkhede, B.E. and Nehete, R. (2018) 'The incident effects of supply chain and cloud computing integration on the business performance: integrated SEM-ANN an approach', Benchmarking: An International Journal. (Scopus Indexed; ABDC indexed Journal: B' Category; CiteScore:1.97; Publisher: Emerald Publishing Limited; DOI:https://doi.org/10.1108/BIJ-07-2017-0170).
- 19. Raut, R.D., Narkhede, B.E., Gardas, B.B. and Luong, H.T. (2018) 'An ISM approach for the barrier analysis in implementing sustainable practices: an Indian oil and gas sector', Benchmarking: An International Journal, Vol. 25 No.4, pp.1245-1271 (Scopus Indexed; ABDC indexed Journal: 'B' Category; CiteScore:1.97; Publisher: Emerald Publishing Limited; DOI: https://www.emeraldinsight.com/doi/abs/10.1108/BIJ-05-2016-0073).
- 20. Gardas, B.B., Raut, R.D. and Narkhede, B.E. (2019). 'Identifying critical success factors to facilitate reusable plastic packaging towards sustainable supply chain management', Journal of Environmental Management, Vol.236 pp.81-92. (Scopus Indexed; ABDC indexed Journal: 'A' Category; Impact Factor: 4.005; Cite Score: 4.54; Publisher: Elsevier; DOI: https://doi.org/10.1016/j.jenvman.2019.01.113).
- 21. Gardas, B.B., Raut, R.D. and Narkhede, B.E. (2019) 'Determinants of sustainable supply chain management: a case from oil and gas supply chain', Sustainable Production and Consumption, Vol.17 pp.241-253(Scopus Indexed; CiteScore: 3.52; Publisher: Elsevier; DOI: https://doi.org/10.1016/j.spc.2018.11.005).



- 22. Gardas, B.B., Raut, R.D., Cheikhrouhou, N. and Narkhede, B.E. (2019) 'A hybrid decision support system for analysing challenges of agricultural supply chain', Sustainable Production and Consumption, Vol.18, pp.19-32 (Scopus Indexed; CiteScore: 3.52; Publisher: Elsevier; DOI: https://doi.org/10.1016/j.spc.2018.11.007).
- 23. Raut, R.D., Gardas, B.B., Narkhede, B.E. and Narwane, V.S. (2019) 'To investigate the determinants of cloud computing adoption in the manufacturing micro, small and medium enterprises: A DEMATEL- based approach', Benchmarking: An International Journal. (Scopus Indexed; ABDC indexed Journal: 'B' Category; CiteScore:1.97; Publisher: Emerald Publishing Limited: DOI: https://doi.org/10.1108/BIJ-03-2018-0060)
- 24. Raut, R.D., Gardas, B.B. and Narkhede, B.E. (2019) 'Ranking the barriers of sustainable textile and apparel supply chains: an interpretive structural modelling methodology', Benchmarking: An International Journal. (Scopus Indexed; ABDC indexed Journal: 'B' Category; CiteScore:1.97; Publisher: Emerald Publishing Limited; DOI: https://doi.org/10.1108/BIJ-12-2017-0340).
- 25. Raut, R.D., Luthra, S., Narkhede, B.E., Mangla, S.K., Gardas, B.B. and Priyadarshinee, P. (2019), 'Examining the performance oriented indicators for implementing green management practices in the Indian agro sector', *Journal of Cleaner Production (Scopus Indexed; Impact Factor:* 5.651; CiteScore: 5.79; Publisher: Elsevier; DOI: https://doi.org/10.1016/j.jclepro.2019.01.139)
- 26. Shishodia, Anjali, Priyanka Verma, and Vijaya Dixit. "Supplier evaluation for resilient project driven supply chain." *Computers & Industrial Engineering* 129 (2019): 465-478.

- 27. Dixit, Vijaya, Priyanka Verma, Piyush Raj, and Mayank Sharma. "Resource and time criticality based block spatial scheduling in a shipyard under uncertainty." *International Journal of Production Research* 56, no. 22 (2018): 6993-7007.
- 28. Kulkarni, Sourabh, Priyanka Verma, and R. Mukundan. "Assessing manufacturing strategy definitions utilising textmining." *International Journal of Production Research* (2018): 1-28.
- 29. Shishodia, Anjali, Vijaya Dixit, and Priyanka Verma. "Project risk analysis based on project characteristics." *Benchmarking: An International Journal* 25.3 (2018): 893-918.
- 30. Kulkarni, Sourabh, Priyanka Verma, and R. Mukundan. "Performance landscape modeling in digital manufacturing firm." *Business Process Management Journal* (2018).
- 31. Jinil Persis, A systematic literature review of Lean six sigma in financial services: Key findings and Analysis, Int. J. of Business Excellence [Accepted for publication]
- 32. Jinil Persis, Industry 4.0: Key findings and analysis from the Literature Arena, Benchmarking: an International Journal [Accepted for publication with minor revisions]
- 33. Jinil Persis, Swarm intelligent Data aggregation in Wireless Sensor Network, International Journal of Swarm Intelligence Research (IJSIR) [Accepted for publication]
- 34. Bhattacharyya S S and Nair S, (2019) 'Explicating future of work; perspectives from India' *Journal of Management Development*. *Vol* 38, No 3, pp- 175-194.
- 35. Bhattacharyya S S and Fernandes C, (2019) Carasid: Interventions that make businesses sustainable", *Vision*, *Vol* 23, *No-2*, *pp-208-214*.



- 36. Nair A and Bhattacharyya S S, (2019) Comparative analysis of sustainability motive relative to transactional, value for money and innovation motives in the context of mobile applications, *Foresight*, Vol 21, No-2, pp-177-199.
- 37. Nair A and Bhattacharyya S S, (2019) Mandatory corporate social responsibility in India and its effect on corporate financial performance: Perspectives from institutional theory and resource-based view.", *Business Strategy and Development*, Vol 2, No-1, pp-106-116.
- 38. Nayak B and Bhattacharyya S S (2019), Integrating Digital Wisdom and Human Capital for Health Insurance Firms; Digitally Automated Processes or Human Resources, Journal for Quality and Participation, Vol 41, No 4, pp-20-23.
- 39. Bhattacharyya S S, (2019) "Development of an integrated model on strategic alliance.", *Indian Journal of Industrial Relations*, *Vol 54*, *No-3*, *pp-441-457*.
- 40. Bhattacharyya SS, (2019) "Exploratory study of international CSR initiatives of Indian firms.", Business Strategy and Development. Vol-2, No-1, pp-51-62.
- 41. K S Ranjani and P. Singh (2018). "Reciprocity, Performance and Training Spends: A Study of Microfinance Institutions, Entrepreneurship Development and Microfinance (ABDC Ranking C)
- 42. Ranjani K.S., Singh Poonam (2019). Reciprocity, Performance and Training Spends: Evidence from South Asia. *Enterprise Development and Microfinance*. (Accepted)
- 43. Singh, V. K., Kumar, P., and Nishant, S. (2019). Feedback Spillover Dynamics of Crude Oil and Global Assets Indicators: A System-wide Network Perspective. Energy Economics, 80

- (May), 321-335. https://doi.org/10.1016/j. eneco.2019.01.005( $A^*$  Category)
- 44. Nanda S. and Panda. A.K. (2019), A Quantile Regression Approach to Trail Financial Performance of Manufacturing Firms (Accepted) in Journal of Applied Accounting Research, SCOPUS, ABDC-C
- 45. Panda. A.K, Nanda S., and Paital R. R., (2019), An Empirical analysis of Stock Market Interdependence and volatility spillover in the Stock markets of Africa and Middle East Region, (Accepted), *African Journal of Economic and Management*, SCOPUS, ABDC-C
- 46. Panda. A.K, Nanda S., Singh V.K and Satish K., (2019) Evidence of leverage effects and volatility spillover among exchange rates of selected emerging and growth leading economies, *Journal of Financial Economic Policy*, Vol. 11 Issue: 2, pp.174-192, https://doi.org/10.1108/ JFEP-03-2018-0042. SCOPUS, ABDC-B
- Panda. A.K. and Nanda S., (2019) The Nexus between Exchange Rate and Long Term Investment in Indian Manufacturing Industry, Management Research Review, Vol. 42 Issue:
   pp.174-198, https://doi.org/10.1108/MRR-01-2018-0024, SCOPUS, ABDC-C.
- 48. Ranjani K.S., Gunta Srinivas (2018). Hand Dough or Hand-Hold: Dilemma at a Microfinance Institution. *Journal of International Business Education*. Volume 13: 2018, pp. 00-00
- 49. Singh, V. K., Nishant, S., and Kumar, P. (2018). Dynamic and Directional Network Connectedness of Crude Oil and Currencies: Evidence from Implied Volatility. Energy Economics, 76(October), 48-63. https://doi.org/10.1016/j.eneco.2018.09.018 (A\* Category)
- K.S. Ranjani, Sanjeev Kumar, (2018) "An investigation of mission drift in Indian MFI", International Journal of Social Economics, Vol. 45 Issue: 9, pp.1305-1317, https://doi.org/10.1108/IJSE-06-2017-0244



- 51. Kumar, S., & Ranjani, K. S. (2018). Financial constraints and investment decisions of listed Indian manufacturing firms. *Financial Innovation*, 4(1), 6.
- 52. Kumar, S., & Ranjani, K. S. (2018). Dividend Behaviour of Indian-listed Manufacturing and Service Sector Firms. *Global Business Review*, 0972150917753863
- 53. Paital R. R and Panda. A.K., (2018) Day of the week and weekend effects in the Indian stock market, *Theoretical Economics Letters*, *Vol. 8*, *PP: 2559-2568*, ABDC-B.
- 54. Panda. A.K. and Nanda S. (2018), Time-Varying Synchronization and Dynamic Conditional Correlation among the Stock Market Returns of Leading South American Economies" International Journal of Managerial Finance, Vol. 14 Issue: 2, pp.245-262, https://doi.org/10.1108/ IJMF-11-2016-0206, SCOPUS, ABDC-B.
- 55. Panda. A.K. and Nanda S. (2018), Working Capital Financing and Corporate, Profitability of Indian Manufacturing Firms, *Management Decision*, *Vol. 56 Issue: 2, pp: 441-457*. https://doi.org/10.1108/MD-07-2017-0698, SCOPUS, ABDC-B.
- 56. Panda. A.K., Nanda S. (2018), A GARCH Modelling of Volatility and M-GARCH Approach of Stock Market Linkages of North America; *Global Business Review, Vol-19, Issue-6, PP:1-16*, SCOPUS, ABDC-C.
- 57. Nanda S. and Panda. A.K. (2018), The Determinants of Corporate Profitability; An Investigation of Indian Manufacturing Firms, *International Journal of Emerging Markets*, Vol-13, Issue-1, pp.66-86, https://doi.org/10.1108/IJoEM-01-2017-0013, SCOPUS, ABDC-C.

#### **Journal Publications**

- Jha, Sumi, and Purnima S. Sangle. "PrideVel: Preparing and Expanding Talent Pool for Emerging Technologies." South Asian Journal of Business and Management Cases (2018): 2277977918803237.
- 2. Roy, Somnath, and Purnima S. Sangle. "AHP-based framework for prioritizing critical success factors to achieve ERP implementation success." *International Journal of Business Information Systems* 24.2: 174-209.
- 3. Dubey, Neeraj Kumar, and Purnima Sangle.
  "Customer perception of CRM implementation in banking context: Scale development and validation." *Journal of Advances in Management Research* (2018).
- Safeena, Rahmath, Abdullah Kammani, and Hema Date. "Exploratory Study of Internet Banking Technology Adoption." Technology Adoption and Social Issues: Concepts, Methodologies, Tools, and Applications. IGI Global, 2018. 333-355.
- Madakam, Somayya, R. Ramaswamy, and Hema Date. "Quality of Life@ Palava Smart City: A Case Study." Global Business Review: 0972150917721822.
- 6. Santanu Satapathy, Shirish Sangle D Seema Unnikrishnan. Determinants of technology-based product adoption by consumers. World Review of Science, Technology and Sustainable Development, Volume 14, Issue 1 https://doi.org/10.1504/WRSTSD.2018.092828. Published online 3 July 2018.
- Jinu Kurien, Seema Unnikrishnan A study on green supply chain management practices in the Indian petroleum industries. International Journal of Services and Operations Management . Volume 31, Issue 2, September 2018.



- 8. Anju Singh, Seema Unnikrishnan, Mayuri Naik, Sayee Sayanekar "CDM implementation towards reduction of fugitive greenhouse gas emissions. Environment, Development and Sustainability, April 2019, Volume 21, Issue 2, pp 569–586 | 2019
- Sharang Karurkar, Seema Unnikrishnan, Swapna Sonali panda, Study of Environmental Sustainability and Green Manufacturing Practices in the Indian Automobile Industry, OIDA International Journal of Sustainable Development, Vol. 11, No. 06, pp. 49-62, 2018.
- 10. Swapna Sonali Panda and Shirish Sangle. An exploratory study to investigate the relationship between social license to operate and sustainable development strategies. 2019, In Press, Sustainable Development, John Wiley.
- 11. Bhupendra Verma, Shirish Sangle. Product Stewardship Strategy: A Study of Indian Firms, Corporate Social Responsibility and Environmental Management, 2018, Volume 25, No (2) 124-134.
- Arun Kumar Vishwakarma, Arvind K Nema, Shirish Sangle. Study of determinants of proactive environmental strategies in India's power sector. Journal of Cleaner Production, 2018, Volume 195, 45-53.
- A K Vishwakarma, Shirish Sangle, Arvind K Nema. Role of Indian Cement Sector towards Sustainable Development., Productivity, 2018, Volume 59 Issue 1, 73-80.
- 14. Vidyadhar V. Gedam, Pranay Raut Kinetic, Anup Chahande, Pranav Pathak. Thermodynamics and Equilibrium studies on the removal of Congo Red Dye using activated Teal Leaf Powder, Journal of applied water science, April 2019, 9:55, DOI: 10.1007/s13201-019-0933-9
- Gedam V.V., Labhasetwar P., Engelsen
   C.J. (2019) An Assessment of C&D Waste
   Quality and Its Recycling Potential-An Indian

- Perspective. Waste Management and Resource Efficiency, Springer, Singapore. DOI: https://doi.org/10.1007/978-981-10-7290-1 65.
- 16. Vidyadhar V. Gedam, Swapnil Punyapwar, Anup Chahande (2019). "Rapid In Vitro Proliferation of Tinospora Cordifolia Callus Biomass from Stem and Leaf with Phytochemical and Antimicrobial Assessment." Waste Valorisation and Recycling, Volume 2, ISBN:978-981-13-2783-4, Springer, Singapore. DOI:10.1007/978-981-13-2784-1
- 17. Sangeeta Verma & Pushpendra Kumar Singh & Surendra Kumar Mishra & Sanjay Kumar Jain & Ronny Berndtsson & Anju Singh & Ravindra Kumar Verma Simplified SMA-inspired 1-parameter SCS-CN model for runoff estimation (2018) Arabian Journal of Geosciences (2018) 11:420 https://doi.org/10.1007/s12517-018-3736-7
- 18. Sangeeta Verma, Ravindra Kumar Verma, Surender Kumar Mishra, Anju Singh, and Geetha K. Jayaraj "A Review of NRCS-CN Methodology and Application of RS and GIS for Surface Runoff Estimation" Hydrological Sciences Publisher: Taylor & Francis, Vol. 62(12), pp 1891-1930, IF-2.22.
- 19. Anju Singh & Megha Sawant & Sheetal Jaisingh Kamble & Mihir Herlekar & Markus Starkl & Enrique Aymerich & Absar Kazmi Performance evaluation of a decentralized wastewater treatment system in India. Environmental Science and Pollution Research, Springer publication (2019) https://doi.org/10.1007/s11356-019-05444-z
- Sheetal J. Kamble, Anju Singh, Absar Kazmi, Markus Starkl, Environmental and economic performance evaluation of municipal wastewater treatment plants in India: a life cycle approach Water. Sci Technol (2019) 79 (6): 1102-1112. https://doi.org/10.2166/wst.2019.110



- 21. Kamble, S. J., Singh, A., Recent Advances in Life Cycle Assessment and Municipal Wastewater Treatment: A Review and Agenda for Future Research, Journal of Environmental Sciences. (In press).
- 22. Sheetal Jaisingh Kamble, Anju Singh, Manoj Govind Kharat, (2018) "Life cycle analysis and sustainability assessment of advanced wastewater treatment technologies", World Journal of Science, Technology and Sustainable Development, Vol. 15 Issue: 2, pp.169-185, https://doi.org/10.1108/WJSTSD-05-2016-0034
- 23. Mahesh Dalvi, Anju Singh and Nachiket Gosavi Business sustainability-an automobile industry perspective (2019) EPRA international journal of economic and business review -peer reviewed journal, volume 7, issue- 2, ISSN 2347 9671 | p- ISSN : 2349 0187.
- 24. Aditee Potdar, Seema Unnikrishnan and Anju Singh A framework for climate change management in organisations: a case for India (2019) World Review of Entrepreneurship, Management and Sust. Development, Vol. 15, No. 3, 2019 303
- 25. Mahesh G. Dalvi, Anju Singh, Paravastu Rambabu, Nagesh N Murthy Business Sustainability A Study of Most Sustainable Corporations (2019) Environmental Management and Sustainable Development ISSN 2164-7682, Vol 8(2).
- 26. Barun Kumar Thakur and Vijaya Gupta, (2019), Valuing health damages due to groundwater arsenic contamination in Bihar, India, Economics and Human Biology, Elsevier, in press
- 27. Chandan Kumar Jha, Vijaya Gupta, Utpal Chattopadhyay, Binilkumar Amarayil Sreeraman, (2018) "Migration as an adaptation strategy to cope with climate change: A study of

- farmers' migration in rural India", *International Journal of Climate Change Strategies and Management*, Emerald, Vol. 10 Issue: 1, pp.121-141
- 28. Bhawsar, Pragya and Chattopadhyay, Utpal (2018), "Evaluation of Industry Cluster Competitiveness: A Quantitative Approach", Benchmarking: An International Journal, Vol. 25, Emerald, Issue 7, pp. 2318-2343.
- 29. Chandan Kumar Jha, Vijaya Gupta, Utpal Chattopadhyay, Binilkumar Amarayil Sreeraman, (2018), "Migration as adaptation strategy to cope with climate change: A study of farmers' migration in rural India", *International Journal of Climate Change Strategies and Management*, Vol. 10 (1), pp 121-141, DOI 10.1108/IJCCSM-03-2017-0059.
- 30. Binilkumar Amarayil Sreeraman, Gyanendra Singh Konthoujam 2018 Conservation Vs Livelihood: Stakeholder Preferences over the Improved Conservation of Loktak Lake in Manipur, INDIA In Nandan Nawan and Joy Elamon Eds 2018 Sustainability, Institutions, Incentives, Voices, Policies and Commitments: Conference Proceedings. Delhi: Indian Society of Ecological Economics.
- 31. Ranganathan, K and P. Singh (2018).

  "Anchoring in Mergers and Acquisitions:

  Does the Regulatory Environment Matters?".

  Journal Accounting, Audit and Finance (ABDC Ranking A)

# Conference Papers:

 Shishodia, A., Verma, P., and Dixit, V. (2018), "Supplier Resilience Assessment of Project Driven Supply Chains (PDSC)", in Production and Operations Management Society (POMS) 29th Annual Conference: Expanding Boundaries of POM 2018, 4th – 7th May, Houston, Texas, USA, pp. 183.



- 2. Shishodia, A., Verma, P., and Jain, K. (2018), "Evaluation of Resilient Capabilities of Project Contractors'", in 3rd National Conference on Industrial Engineering and Technology Management (NCIETM): Reimagining Industrial Engineering and Technology Management for Value Creation, 2018, 30th Nov. 1st Dec, at NITIE Mumbai, Maharashtra, pp. 70.
- 3. Dohale, V., Akarte, M., & Verma, P. (2018).

  Manufacturing Performance Improvement through Layout analysis using Simulation.

  In 3rd National Conference on Industrial Engineering and Technology Management (NCIETM), NITIE, Mumbai, India, (p. 51).
- 4. Shishodia, A., Verma, P., and Jain, K. (2018),

  " Assessment of Project Network Resilience:
  A conceptual paper'", in 12th Annual ISDSI conference on Data Driven Decision Making in the digital Age, 2018, 27th Dec. 30th Dec, at SPJIMR, Mumbai, Maharashtra, pp. 66.
- Verma, P., and Daudiyal, G. (2018), "Integration of supplier selection with closed-loop Supply chain for adhesive industries", in 51<sup>st</sup> Annual Convention of Operationa; Research Society of India and International Conference, 2018, 16<sup>th</sup> 19<sup>th</sup> Dec., at IIT Bombay, Mumbai, Maharashtra.
- Mishra, A. and Verma, P., (2018), "Estimation of factors criticality for core quality: An integrative GDM-CCMA-AHP approach", in 51<sup>st</sup> Annual Convention of Operationa; Research Society of India and International Conference, 2018, 16<sup>th</sup> 19<sup>th</sup> Dec., at IIT Bombay, Mumbai, Maharashtra.
- Verma, P., Gokhale, R. and Tyagi, I., (2018), "Comparison of Fuzzy Multi-Objective Programming and Lexicographic Approaches for Integrated supplier selection and Order Allocation in Steel Industry", in 51st Annual Convention of Operationa; Research Society

- of India and International Conference, 2018,  $16^{\rm th}-19^{\rm th}$  Dec., at IIT Bombay, Mumbai, Maharashtra.
- 8. Akarte, M. and Verma, P., (2018), "Supplier Segmentation using boosting tree A Machine Learning approach", in Sixth International Conference on Business Analytics and Intelligence, IISc Bangalore, 20-22, December 2018.
- 9. Kulkarni, S., Verma, P., and Mukundan, R. (2018), "Analytical Investigation of Cumulative Capabilities Sequence in Digital Manufacturing Firm", in 12th Annual ISDSI conference on Data Driven Decision Making in the digital Age, 2018, 27th Dec. 30th Dec, at SPJIMR, Mumbai, Maharashtra, pp. 136.
- Dutt, S., Verma, P., and Aghalaya, S. N. (2018),
   Hospital Registration Process: A system dynamics approach", in 12th Annual ISDSI conference on Data Driven Decision Making in the digital Age, 2018, 27th Dec. 30th Dec, at SPJIMR, Mumbai, Maharashtra, pp. 133.
- 11. Verma, P., and Gayke, C. (2018), "Building E-commerce Supply Chain Resilient", in 12th Annual ISDSI conference on Data Driven Decision Making in the digital Age, 2018, 27th Dec. 30th Dec, at SPJIMR, Mumbai, Maharashtra, pp. 92.
- 12. Shishodia, A., Verma, P., and Jain, K. (2018), "Assessment of Project Network Resilience: A conceptual paper", in 12th Annual ISDSI conference on Data Driven Decision Making in the digital Age, 2018, 27th Dec. 30th Dec, at SPJIMR, Mumbai, Maharashtra, pp. 66.
- 13. Dohale, V., Akarte, M., & Verma, P. (2018). Review of Manufacturing Strategy literature published in "Benchmarking: An International Journal." in 12th Annual ISDSI conference on Data Driven Decision Making in the digital Age, 2018, 27th Dec. 30th Dec, at SPJIMR, Mumbai, Maharashtra, pp. 24.



- 14. Shishodia, A., Verma, P., and Jain, K. (2019), "Exploring the Enablers of Resilient Suppliers in NPD Projects: An ISM approach", in 5th PMI Research & Academic Conference on Project Management in the Emerging World of Disruption, 2019, 28th February to 2nd March 2019 at IIM Kozhikode, Kerala, pp.15.
- 15. Verma. Р., Dixit. V. Raja, Md. (2019). Design of green supply chain with Packaging Recycling and Emission Constraints. 6th International Sustainable Operations and Supply Chains Forum, 18th – 19th March. Gothenburg, Sweden.
- 16. Jinil Persis, Comparative Analysis of Scheduling Algorithms in Cloud Environment," 2018 International Conference on Communication and Signal Processing (ICCSP), Chennai, 2018, pp. 0953-0956 http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8524242&isnumber=8523828
- 17. Shrenshu Parhi, Milind Akarte and Kanchan Joshi, Performance Measurement of Smart Manufacturing System: A conceptual Analysis, 12<sup>th</sup> Annual ISDIS conference on "Data Driven Decision Making in digital Age" heald at SPJIMR, Mumbai December 27-30, 2018, page 76
- 18. Vishwas Dohle, Milind Akarte and Priyanka Verma, Review of Manufacturing strategy literature in "Benchmarking: An International Journal", 12<sup>th</sup> Annual ISDIS conference on "Data Driven Decision Making in digital Age" heald at SPJIMR, Mumbai December 27-30, 2018, page 24,
- 19. Mrugank Akarte, Balasaheb Gandhare and Milind Akarte, Maintenance Performance Classification using Machine Learning with Multi criteria – A case study of Dairy Industry, 6<sup>th</sup> International Conference on Business Analytics and Intelligence 2018, ICBAI-2018

- 20. Vishwas Dohle, Milind Akarte and Priyanka Verma, Manufacturing Performance Improvement through Layout analysis using Simulation, 3<sup>rd</sup> National Conference on Industrial Engineering & Technology Management (NCIETM-2018) held at NITIE, Mumbai, November 30 December 1, 2018
- 21. Shrenshu Parhi, Milind Akarte and Kanchan Joshi, Enablers of Smart Manufacturing: A Conceptual Understanding, 3<sup>rd</sup> National Conference on Industrial Engineering & Technology Management (NCIETM-2018) held at NITIE, Mumbai, November 30 December 1, 2018
- 22. Sushobhan Dutta, Sanjib Kumar Das, Milind Akarte, Critical Success Factors of Buyer-Supplier Dyadic Relationship and its impact on Procurement Business in Indian Pharmaceutical Industry, RCOSCM- "Research conference on Operations and Supply chain Management" held at "Symbiosis Institute of Operations Management", Nashik, India on 17th February, 2018."
- 23. Kumar, S., Narkhede, B., Jain, K., (2018). Industry 4.0: Literature Review and Future Research Direction. *National Convention of IIIE and International Conference (ICIEIND)*. Bhubaneswar, India.
- 24. Kumar, S., Narkhede, B., Jain, K., (2018). Performance of Warehouse: A systematic Review. XXII Annual International Conference of the Society of Operations Management. Kozhikode, India. (Abstract only).
- 25. Kumar, S., Narkhede, B., Jain, K., (2018). Scope of AI, Blockchain and GPS in Outsourcing Operations. 12th Annual Indian Subcontinent Region of Decision Sciences Institute conference. Mumbai, India. (Abstract only).



- 26. Kumar, S., Narkhede, B., Jain, K., (2019). Comparative study of Traditional and Modern Warehouse: A Literature Review. *International Conference of the International Association for Management of Technology.* Mumbai, India. (Abstract only).
- 27. Sharang Karurkar, Seema Unnikrishnan, Swapna Sonali panda, Study of Environmental Sustainability and Green Manufacturing Practices in the Indian Automobile Industry, presented by Seema Unnikrishnan at the Conference on Sustainable Development conducted by OIDA international Agency at the University of Oxford on 14th to 15th August 2018.
- 28. Shankar Murthy, Binay Patawari and Manoj Kharat; Green Nanotechnology and Green Innovation: Pathways to Sustainable Development, paper presented at International Conference on Environmental Nanotechnology for Socio Economic Development of India, ENTSED 2018, 28-29<sup>th</sup>. Sept. 2018, DIT Dehradun.
- 29. Shankar Murthy, Manoj Kharat, & Sheetal Kamble; *Identifying Barriers for Adopting Green Supply Chain Management Practices in Indian Industries*, paper presented at 4<sup>th</sup>. International Conference on Economic Growth & Sustainable Development: Emerging Trends, 23-24 November 2018, SDMIMD, Mysore.
- 30. Shankar Murthy, Manoj Kharat, Sheetal Kamble & Mukesh Kharat; *Smart City & Public Support: Citizen's Perception*, paper presented at 3<sup>rd</sup>. National Conference on Industrial Engineering & Technology Management (NCIETM-2018) on Reengineering Industrial Engineering & Technology Management for Value Creation, 30<sup>th</sup> Nov. -1<sup>st</sup> Dec. 2018, NITIE Mumbai.

- 31. Manoj Kharat, Shankar Murthy, Sheetal Kamble & Mukesh Kharat; *An MCDM Approach for the Selection of Waste to-Energy plant Investment Projects*, paper presented at 3<sup>rd</sup>. National Conference on Industrial Engineering & Technology Management (NCIETM-2018) on Reengineering Industrial Engineering & Technology Management for Value Creation, 30<sup>th</sup> Nov. -1<sup>st</sup> Dec. 2018. NITIE Mumbai.
- 32. Shankar Murthy, Manoj Kharat, Sheetal Kamble & Mukesh Kharat; Public & Private Sphere Pro-Environmental Behaviour: The importance of Environmental Knowledge, paper presented at 12th. Annual ISDSI Conference: Data Driven Decision Making in the Digital Age, 27-30 December 2018, SPJIMR, Mumbai.
- 33. Shankar Murthy; Implementation of Behavioural Based Safety to establish a Safety Culture in an industry, Paper presented at 3<sup>rd</sup>. Annual National Conference of Forum of Behavioural Safety, 28<sup>th</sup> January 2019, PHD House New Delhi.
- 34. Anju Singh and Dwijen Vaidya (2019) E waste management (2019) Saket Projects Limited, proceedings of 9th National Conference on "Industrial, Urban and E-Waste Management" Ahemdabad.
- 35. Megha Sawant, Sheetal Kamble, Anju Singh, Mukund Babel Environmental impacts of rice cultivation in Sindhudurg district of India in National Environmental Conference on 1st January (NEC-2019).
- 36. Anju Singh, Water as a resource in National Environmental Conference on 1st January (NEC-2019).
- 37. Rohit Panchal, Anju Singh An Overview on Circular Economy Initiatives in European Union Conference paper in EUROMA (European Operations Management Association) during 18-19 March 2019, Gothenburg, Sweden.



- 38. Rohit Panchal, Anju Singh Applying R-imperatives on Circular Economy Case Studies of European Union: A Systematic Literature Review poster in National Environmental Conference on 1st January (NEC-2019).
- Anju Singh Circular Economy in Circular Economy roundtable in Bombay Chamber of Commerce and Industry on 8th January 2019 in BCCI, Mumbai.
- 40. Rohit Panchal, Anju Singh Development of circular economy performance indicators to assess waste electrical and electronic management (2019) in doctoral conclave, Department of management studies, MNIT Jaipur during 8-9 March.
- 41. Vellala, Paramasivan S., Madala, Mani K. and Chattopadhyay, Utpal, Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Inclusive Growth: Evidence from Field Study in the State of Tamil Nadu, presented in 4<sup>th</sup> International Conference on Law and Economics. Organised by Gokhale Institute of Politics and Economics, Pune, Dec. 15-16, 2018.
- 42. Nayek, Subhasis and Chattopadhyay, Utpal, Transition from Lean Manufacturing to Industry 4.0: The Challenges before Indian MSMEs, presented in 3<sup>rd</sup> National Conference on Industrial Engineering and Technology Management, organised by National Institute of Industrial Engineering (NITIE), Mumbai, Nov. 30- Dec. 01, 2018.
- 43. Shreyas and Chattopadhyay, Utpal, Impact and Challenges of Logistic 4.0 in India presented in 3<sup>rd</sup> National Conference on Industrial Engineering and Technology Management, organised by National Institute of Industrial Engineering (NITIE), Mumbai, Nov. 30- Dec. 01, 2018.

- 44. Chattopadhyay, Utpal, Exploring Links between Market Entry Strategy and Performance of Automobile MNCs in Emerging Markets: A Two Firm Two Country Analysis, presented in 10<sup>th</sup> Economics and Finance Conference, Rome, Italy, Sept. 10-13, 2018.
- 45. Organized a workshop on Digitization of MSMEs: Opportunities and Challenges under Centre for Global Competitiveness of MSMEs on Saturday, 2<sup>nd</sup> March 2019.
- 46. Chaired a Session on Perspectives in Qualitative Research at International Conference on Challenges in Emerging Economies held on 23-24 November 2018 at KJ Somaiya Institute of Management Studies and Research, Mumbai
- 47. Kavitha Ranganathan, Poonam Singh, Bin Shrinidhi and Madhu Veeraraghavan, "Demystifying Block holder Role in Family Firms", 3rd Annual JAAF Conference, 4-5 January 2019, ISB Hyderabad.
- 48. Swati Agrawal, Poonam Singh, Mainak Mazumdar, "Understanding factors constraining firm transition in Indian MSME's", 12th Annual ISDSI Conference, 27-30 December 2018, Mumbai
- 49. Swati Agrawal, Poonam Singh, Mainak Mazumdar, "Understanding Firm Transition in Indian MSME's", 55th Annual Conference of the Indian Econometric Society, 8-10 January 2019, Mumbai

#### **Conference Proceedings**

 Gupta Vijaya (2018), The Scope of Entrepreneurship led Development through employment opportunities in India, 10th Economics and Finance Conference, Rome, Italy, 10-13 September and chaired a session on Labour Economics.



- 2. Bhattacharyya S S (2019) "Development of a typology on Firm-Civil Society Organization collaborations in the context of Corporate Social Responsibility (CSR) engagement, The 12TH EIASM workshop on the challenges of managing the third sector 'to be held on June at NTNU Business School Trondheim, Norway.
- 3. Bhattacharyya S S and Debnath S (2019) 'Olympic Gold Quest (OGQ); The saga of a Civil Society Organization (CSO) transforming Indian sports.', The 12TH EIASM workshop on the challenges of managing the third sector 'to be held on June at NTNU Business School Trondheim, Norway.
- 4. Nayak B, Bhattacharyya, S S, (2018), 'Wearable Technology Products and Implications for Indian Health Insurance Firms', Strategic Management Society (SMS), Hyderabad Conference, Indian School of Business, December. 15-18, 2018.

- 5. Nair A, Bhattacharyya, S S, (2018), 'Study of CSR Act 2013 in India: Has it done more bad than good?', Strategic Management Society (SMS), Hyderabad Conference, Indian School of Business, December, 15-18, 2018.
- 6. Nair A and Bhattacharyya S S (2018)'Integrated strategic management model on innovation and sustainability" 12th Annual ISDSI Conference to be held from 27th to 30th December 2018 at SP Jain Institute of Management & Research (SPJIMR), Mumbai, India.
- 7. Bhattacharyya S S, Raghuvanshi V and Mohan K (2018) 'Empirical investigation on internationalization of Indian engineering, procurement and construction firms' has been accepted for presentation at the 12th Annual ISDSI Conference to be held from 27th to 30th December 2018 at SP Jain Institute of Management & Research (SPJIMR), Mumbai, India.



# STUDENT AFFAIRS AND ACTIVITIES



Annual Report 2018-19



# STUDENT AFFAIRS AND ACTIVITIES

1. **ABHISANSKARAN-2018** (11 June 2018) - The ABHISANSKARAN (orientation) was organized to introduce the new batches to the NITIE culture and officially marked the beginning of their two year journey. The event started off





with welcome address by Prof (Ms) Karauna Jain, Director, NITIE and by all the Deans. Director, NITIE congratulated all the students and wished them for their journey with the Institute. Prof. (Ms) Hema Date, Dean(Student Affairs) shared with students the NITIE way of life for overall development of the students. Dean Academics, Prof. VB Khanapuri made the students aware of the different courses offered at NITIE and the importance of these courses with respect to the industry. The whole day of the event was encompassed with different



sessions by Institute Professors on Institute's heritage, vision and achievements at great length and encouraged the students to think towards inclusive growth in NITIE.

- 2. **Team Street (Guest Lecture) (24 July 2018)**The Finance forum of NITIE, organized a guest lecture on 24 July 2018. This event aimed to give a direction to the Junior Batch and encourage them for continuous learning. In this event, Finance Forum of NITIE invited Mr Mayank Khandelwal, a prominent NITIE Alum from the Banking Industry.
- 3. **Independence Day Marathon** (15 August 2018) To celebrate India's 72<sup>nd</sup> Independence day NITIE Sports Committee organized a 3.5 km marathon run on 15 August 2018. All the Campus residents including all the students participated in this marathon run to mark this auspicious day. The participants were divided into Six categories viz. Children below





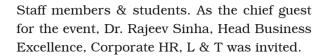


10 years, Children above 10 Years, Faculty and Staff Members above 50 years and below 50 years, Boys students and Girl students. 03 winners in each category were awarded a medal and a certificate by Director, NITIE in award ceremony conducted after the Institute's Flag Hoisting ceremony.

4. **Engineer's Day Celebration** (18 Sep 2018)September 15<sup>th</sup> is celebrated every year in India as Engineer's Day to commemorate the birthday of this legendary engineer, internationally recognized **Bharat Ratna Sir M. Visvesvaraya**, for his genius in harnessing water resources, he was responsible for successful design and construction of several river dams, bridges and implementing irrigation and drinking water schemes all over India.

NITIE as per its tradition celebrated **Engineer's Day** on 18 September 2018 in honour of **Bharat Ratna Sir M. Visvesvaraya's** Birthday with participation from Deans, Faculty members,

participation from Deans, Faculty members,



Like every year A New Product Development' contest was launched among the NITIE Students. The winning team of the contest comprising of Amit Gupta (MM-04), Guru Teja G (MM-04), Karthikeya Sharma(MM-04), P Satyarthi(IM-24), Suraj Jaiswal(IM-24) were given a cash prize of Rs.8000/- for their project `Universal Wrench'. The other participating teams were given Rs.4000/-, Rs.3000/- and two consolations prizes of Rs. 1000/- each.

- 5. **AVARTAN 2018** (20 Oct 2018 to 26 Oct 2018)Avartan an annual Fest is now an umbrella event which is the amalgamation of Prerana, Lakshya and Empresario with the cultural festival– Arohan and the sports meet Josh. The highlights of the AVARTAN 2018 is as follows: -
- i) Lakshya Business Visionary Awards- In Avartan, the fraternities of NITIE felicitate business leaders with the 'Lakshya Business Visionary Award'. These awards are given in recognition and appreciation of achievements, to those industry leaders, who have emerged winners due to their exemplary vision and extraordinary leadership. NITIE, this year felicitated "Lakshya Business Visionary Award 2018" to Mr. Pawan Munjal, Chairman, Managing Director & Chief Executive Officer,





**Hero Moto Corp Ltd** has been the World's largest two-wheeler Company from 2001 and has successfully retained this position till date - for over 17 consecutive years.

ii) Lakshya Distinguished Leader Awards-NITIE, with utmost respect, felicitates with "Lakshya Distinguished Leader Award", in recognition of and appreciation to, the paragons of India who devoted their entire life in shaping the future of India in various fields through their sterling Leadership. "Lakshya Distinguished



Leader Award 2018" was conferred to Mr. Amitabh Kant, CEO of NITI Aayog, National Institution for Transforming India. Mr. Amitabh Kant is presently CEO of National Institution for Transforming India (NITI). He is a member of the Indian Administrative Service, IAS (Kerala Cadre: 1980 batch). Mr. Kant has been a key driver of the "Make in India", Startup India, "Incredible India" and God's Own Country" initiatives that positioned India and Kerala State as leading manufacturing and tourism destinations.

The second recipient of "Lakshya Distinguished Leader Award 2018" has been **Prof. Jyeshtharaj Bhalachndra Joshi, Honorary Distinguished Professor at the Institute of Chemical Technology, University of Mumbai.**He has a research and teaching experience of over 46 years with his areas of interests being around Fluid Mechanics, Multiphase Reactor Design, Computational Fluid Dynamics, Atomic



Energy, Solar Energy and Bio-Energy. Till date he has provided research guidance to 91 Ph.D. Students, 60 Masters and 25 Post-Doctorals.

iii) Empresario Entrepreneurship Awards-The Empresario most inspiring award was conferred to Mr. Nand Kishore Chaudhary, founder and CMD, Jaipur Rugs. Renowned as a Visionary, Man of the Masses, and a "Businessman with a Heart of Gold", NKC's



vision is to see Indian hand-knotted rug industry at par with the international industry. For this, he is constantly working to promote & facilitate research in the rug industry especially technology and skill-management.

iv) **Prerana Business Meet**- The Prerana Business Meet (PBM), a flagship event of Prerana, is a conclave for the country's most influential leaders to discuss the current critical issues of business and its impact on the country's economic and geopolitical growth through





business talks. NITIE hosted three brilliant minds of the industry, for Prerana Business Meet, 2018: Mr. Sandeep Chaudhary, Chief Executive Officer, Aon Hewitt Mr. Arun Thukral, Managing Director & Chief Executive Officer, Axis Securities Mr. Mukesh Kripalani, Chief Executive Officer, Parekhplast. This year, dignitaries at Prerana Business Meet gave their inputs on the topic, "Is India riding the Innovation wave in Business & Technology?".

v) Industrial Engineering Conclave- This conclave is a unique platform to facilitate knowledge transfer between industrial personnel and academic researchers on the topics related to industrial engineering and expand the boundaries. Eminent speakers from various backgrounds spoke on the topic:



# "Changing role of Industrial Engineering in the emerging world of Industry 4.0".

The esteem dignitaries for Industrial Engineering Conclave 2018 were:

- 1. Dr. V. Kovaichelvan, Director, TVS Motor Company limited.
- 2. Mr. Kaustubh Gokhale, Vice-President, Capgemini.
- Dr. R. Chandran, Chief Information Officer
   & Chief Delivery Officer, Bahwan Cybertek
   (BCT)
- 4. Mr. Atul Jaggi, Chief Operating Officer, Gabriel India Limited.
- vi) **Supply Chain Management Conclave** This event is an attempt to bring the best minds in the supply chain from different industries





under one roof. Focused on Supply Chain, the event brought in a valuable learning experience for young budding managers and decision makers from various industries. The topic of the supply chain management conclave was "Next Generation Global Supply Chain Orchestration". The esteem dignitaries for SCM conclave were:

- 1. Mr. P. Radhamanalan, Head of Jewellery Division, Titan Company Limited.
- 2. Lt Colonel Vijay Nair, Vice President, Reliance Digital Retail Ltd.
- 3. Mr. Prasad Shidhaye, Director, Johnson & Johnson India Private Limited...
- Mr. Swaminathan Ramachandran, Chief Operating Officer, Aditya Birla Fashion and Retail Ltd.
- 5. Mr. Ankur Bhagat, Associate Director, Procter & Gamble (P&G).
- vii) Manufacturing Conclave- With world manufacturing scenario changing at an astounding pace, 'Manufacturing Conclave' is an initiative under Avartan organized by Lakshya Team to bring the best minds in the manufacturing from different industries to discuss the latest manufacturing trend and topics. This conference is designed to help achieving manufacturing excellence across these core operational areas of maintenance, continuous improvement and safety. The



topic of the conclave was "Servitisation: The changing face of Manufacturing". The esteem dignitaries for Manufacturing conclave were:

- 1. Mr. Dilip S Modak, Senior Vice- President, CEAT Ltd.
- 2. Mr. G. S. Raghu, Vice- President, Hindustan Coca- Cola Beverages Pvt. Ltd.
- 3. Mr. Avijit Dutta, Global Head, TATA Consultancy Services Ltd.
- viii) MSME Entrepreneurship Conclave- Every year "Empressario" establishes a confluence of Business and NITIE by organizing "MSME Entrepreneurship Conclave" conducted by Empresario in collaboration with SIDBI and Centre for Global Competitiveness of MSMEs (CGCM) to promote students to ideate and venture into new businesses and create value for themselves and the society. This event sees the top brass of the corporate world discuss the latest in the field of technology and how it affects businesses and the industry. With the boom in start-ups, it becomes important discuss about emerging technologies and other relevant trends. This year, the dignitaries expressed their views about the topic "Increasing MSME's competitiveness through innovation & entrepreneurship" and an intriguing and expressive manner. With NITIE's vision as "To be the thought leader in Industrial Engineering education and research, and partner in the manufacturing





renaissance of the nation" and current boom in start-up's culture, this topic was perfectly in-line with NITIE's motto and current trends in business environment. We had following distinguished set of panels to talk in length about our topic –

- 1. Mr. Sanjay Joshi, Owner, K Bond
- 2. Mr. Sadashiv Survase, Joint Director of Industries, Maharashtra state
- 3. Mrs. Bhagyashree Sathe, Deputy Director, MSME Development Institute, Mumbai
- 4. Mr. A. C. Mouli, Deputy General Manager, SIDBI Mumbai
- 5. Shri P S Agwan, VP- COSIA, Mumbai
- bank, the stage was set for one of the most eagerly awaited events of the year "NITIE Finance Conclave-2018". FinTech or financial technology has emerged as a relatively new industry in India. FinTech is an industry comprising companies that use technology to offer financial services. These companies operate in insurance, asset management and payment, and numerous other industries. The FinTech sector is evolving rapidly. Many startups challenge the existing landscape of banks and financial service providers in various areas of business. To discuss this trend, the topic for



the conclave was kept as "Rise of Fintech and its Impact on Financial Services". We had the following distinguished panel gracing the event to share their opinions on how the country is going to progress towards an inclusive growth program.

- 1. Mr. Priyank Tiwari, Group Executive VP & Regional Head, Yes Bank,
- 2. Mr. Sameer Naringrekar, Founder, Managemyfortune.com,
- 3. Mr. Ausang Shukla, MD, Ambit Corporate Finance,
- 4. Mr. Rahul Gaitonde, COO, Cube Consumer Services Pvt Ltd.
- 5. Mr. Roy Eddington Charles, Mentor, Roy Eddington Charles & Associates

Prof Hema Date had initiated the session by providing an overview of Rise of Fintech companies in India. Prof K S Ranjani ended the session with a Vote of Thanks.

Green Lantern- The Green Lantern Keynote series is the stage where Industry Experts and Leading Speakers from reputed and recognized organisations present their perspectives and views about various themes in the field of sustainability. The theme of this year's event was 'Building Circular Economy' Looking beyond the current take-make-dispose extractive industrial model, a circular economy aims to redefine growth, focusing on positive societywide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. The eminent speakers enlightened the students about how there is a paradigm shift towards circular economy which helps in utilizing the resources in a more sustainable way and how businesses today can promote activities that helps in building circular economy This year we had with us a panel of 3 esteemed guests:



- Mr. Naresh Patil, Deputy Chief Sustainability Officer, Mahindra & Mahindra.
- Ms. Kalluri Soumya, Founder of Dwij Products.
- 3. Prof. Seema Unnikrishnan, Course Coordinator- PGDISEM. NITIE

The future of the Indian economy is not in competing on creating commodities with finite resources, but in a circular economy, in reusing, in putting things back into the economic cycle, in thinking in terms of cradle to cradle.

**Ecolloquium**- It is a way of getting corporate house honchos to deliberate on a present-day topic of significance. It facilitates a confluence of knowledge, experience and expertise. Members of the panel are distinguished dignitaries who are hold commendable responsibilities in corporate houses from diverse industrial backgrounds. They bring to the forum a unique energy and enthusiasm that encourages and motivates students. This forum is also a platform for the students to gain knowledge and discuss their views on the topic with the eminent panellists who have worked closely with projects related to the topic. The theme for panel discussion this year was: "Relevance of Behavioural aspects in ensuring Workplace Safety".

Distinguished guests for the panel discussion were:-

- Mr. Pankaj Singh, Director HSE, Lafarge Holcim
- 2. Mr. Shankar Rajagopalan, VP EHS&S, Tata Projects
- 3. Mr. Mahesh Chandak, EHS Lead for India-Africa, Monsanto
- 4. Mr. Ganesh Wagh, Head EHS, Mahindra & Mahindra



- 5. Mr. Randhir Dhage, Head Corporate HSE, RIL
- xii) Power Talks- Under the umbrella of AVARTAN, Lakshya, Power Talks is a candid Gyan session to enlighten the ignited young managerial minds in the institute. This year, Mr. Ajai Chowdhary, Chairman of the Electronics Sector Skills Council and Co-Chairman of the Working Group for Development of Innovation and IP in the ESDM sector, graced the event. He shared his words of wisdom and enlightened everyone present with his experience and knowledge.
- xiii) **Cita-De-La Prerana** What's more fun than learning life lessons through storytelling? Cita—De-La Prerana brings into reality the same! It's an event where famous celebrities put forth before you a canvas of their colorful (and indeed successful) life stories. Their stories





never fail to kindle that hidden spark in you, filling you with high hopes and renewed energy. They connect the dots to enlighten us about their untold struggle & the mettle they've shown to conquer it. Cita-de-la Prerana has had a tradition of hosting some amazing personalities such as Mr. Rajat Kapoor, Mr. Anurag Kashyap, Ms. Gul Panag, Mr.Piyush Mishra, Ms. Divya Dutta and the list goes on.

This year, we were blessed to have with us **Mr. Atul Srivastava**, **Mr. Suresh Menon & Mr. Jatin Sarna**. The diverse experiences shared by the dignitaries certainly inspired the audience to follow their passion.

xiv) **JOSH 2018** - JOSH, the annual Sports Festival of NITIE was organized from 20th -22nd October 2018. JOSH is one of the largest sports festivals among the B-schools in the country. This year, JOSH witnessed participation from about 12 colleges including around 400 students from IIMs, IITs, SP Jain and other premier B Schools offering an unparalleled competitive environment. JOSH has emerged as a brand in itself and has seen addition to the 1000 strong student community. JOSH offers a platform for students from all over India to showcase their talent and compete with the best upcoming sport persons in the country in a highly charged and competitive ambience with highly equipped sports facilities. The festival comprises of a plethora of events from various sports events like Cricket, Futsal, Volleyball,



Basketball, Lawn Tennis, Table Tennis, Throw ball, Carom & Chess.

JOSH has been promoted by eminent sporting personalities every year. This year JOSH was inaugurated by the hands of the youngest ever captain of the **Indian national Hockey team, Mr. Sardar Singh**. The students gathered in huge numbers to welcome the guest and were highly motivated by his inspirational words. Mr. Sardar Singh spoke about the importance of Dream, Discipline and Dedication in the lives of humans.



of NITIE National Institute of Industrial Engineering, Mumbai has organized its annual cultural festival - 'AROHAN' from 20<sup>th</sup> – 22<sup>nd</sup> October, 2018 under the umbrella of 'AVARTAN'. Adorned by the events like Rendezvous (Fashion Show), Headbangerz Arena (War of Bands), Nukkad Naatak (Street Play), Surkshetra (Singing Competition) and





Nrityotsav (Dance Competition) etc.. The event was a grand success and raised the bar for coming years.

#### xvi) Other events at AVARTAN 2018

- 1. **Prerana Decibelz** is the music and dance night of Avartan at NITIE where the musicians, celebrities, singers, DJs enthrall the students with their musical performances.
- 2. On the Job Achiever's contest
- **3. Summer Project Contest** comprises of six modules viz Finance, Marketing, Operations/SCM, IT, Strategy and Consulting and Human Resources.
- 4. Siemens Digital Transformation Challenge
- 5. SPARSHA
- 6. Launchpad
- 7. Beat The Street
- 8. Vivaad
- 9. Strategem
- 10. Proicere
- 11. LAKSHWIZ BAZAR
- 12. LAKSHWIZ D-STREET
- 13. LAKSHWIZ FACTORY
- 14. Navkriti





- 15. Ideation workshop
- 16. My Story
- 6. **NITIE Pond Beautification and Cleanliness drive (18 January to 27 January 2019)** As a part of Swachh Bharat Abhiyan, the task of Pond area Cleaning and Beautification was taken up by the Cultural Committee, NITIE. This drive was conducted on 18 January, 26 January and 27 January 2019. Large number of students from both Junior and Senior









batches participated and contributed their efforts to make campus more beautiful. The output is a beautiful blend of colours spread on the walls of pond. The walls are decorated with caricatures of prominent public figures from different fields, wall paintings of superheroes, and doodles.

7. Athletics Meet (19 January 2019) With a view to recognize the best athletes in the campus and to bring out the lost athlete in the students, Sports Committee in NITIE conducted an Athletics Meet in the campus for all the students on the 19th of January 2019.





The event was conducted for the first time in NITIE and saw active participation from students and fellows. The meet comprised of 11 activities: 1. Sprint (100m) - Male 2. Sprint (100m) - Female 3. Sprint (200m) - Male 4. Sprint (200m) - Female 5. Long Jump - Male 6. Relay (3\*100m) - 4M+1F 7. Shotput - Male 8. Shotput - Female 9. Javelin Throw - Male 10. Discus Throw - Male 11. Discus Throw - Female.

All the activities were conducted in the Sports Ground wherein the tracks and fields were







prepared. Top 3 winners in each activity were awarded with medals and certificates in the valedictory function following the flag hoisting ceremony on Republic Day.

**8. Republic Day Marathon (26 January 2019)** To celebrate India's 70<sup>th</sup> Republic Day, NITIE Sports Committee organized a 3.5 km marathon run on 26 January 2019. All the Campus residents including all the students participated in this marathon run to mark this auspicious day. The participants were divided





into 12 categories viz. Girls under 5 years, Boys under 5 years, Boys below 10 years, Girls below 10 years, Boys (Above 10 Years- 19 Years), Girls, Boys, Faculty and Staff Members(Male) below & above 50 years, Faculty and Staff Members(Female) below and above 50 years. 03 winners in each category were awarded a medal and a certificate by Director, NITIE was awarded in an award ceremony conducted after the Institute's Flag Hoisting ceremony.



9. B-Cube (Budding Business Brains) (10 February 2019) Team Impact @ NITIE plays host to B-School aspirants as a parts of its annual aspirants interaction event- B-Cube. This year the event was conducted on 10 February 2019 and 100 aspirants from all over the country participated in the event. It is a congregation of Engineering Students as well as working professionals from different parts of the country. Several events including a GD-PI workshop was conducted under the ambit of of B-Cube.

## 10. Post Budget Analysis (15 February 2019)

- The 2019 Interim Budget by the NDA Govt will be crucial as it can impact the voters deeply. There is so much to grasp and make sense of, as to what will be the impact of such announcements on the industry, common people and the nation. The better way to get insights on this is getting it straight from the industry stalwarts. We at National Institute of Industrial Engineering (NITIE), organized





the Post Budget Analysis 2019 on 15th Feb by inviting eminent personalities both from industry and academia to share their views. This was the 5th edition of the event and was organized by Street, the finance club of NITIE. The eminent panelists who graced the dais included Mr Sankar Chakraborti, CEO of Acute Ratings and research limited, Mr. Manoj Rawat, managing director & Chief executive officer of Value Fin India Credit Services Private Limited. Mr Abhishant Pant, Founder of The Fintech Meetup and NITIE's very own professor Utpal Chattopadhyay and Prof (Ms) KS Ranjani was the part of the panel. The discussion was moderated by Mr Roy Eddington Charles, Mentor, Roy Eddington-Charles and Associates.

#### 11. Marksfete (16 February 2019)

Marksfete, is the pan-India annual marketing fest of NITIE which offers an array of events exposing students to live challenges faced in the industry helping them sharpen their marketing acumen.

There were 4 events that were conducted under Marksfete- 2019:-

a. Maddiction'19: Marketing Quiz: It is a perfect blend of fun, entertainment, and brainstorming which not only tests the intellectual capability and marketing quotient of the participant but also keeps them glued till the end. The quiz was conducted online with 20 questions and lasted for 20 minutes.

No. of Registrations: 345, Prizes worth: Rs 3000, Winners: Team "YNY", IIFT Delhi, First Runner up: Team "The Brain Trust", NMIMS, Mumbai, Second Runner up: Team "Nocturnal Beings", MICA, Ahmedabad

# b. Mark-Sense: Live Case Study Competition : This Marketing Case Study Competition is based on live challenges faced by industries. It aims at testing the ability of participants to apply the marketing concepts to practical situations



through an exhaustive business case and thus provides solutions to the problems currently faced by company/industry. Competition was open to all B-school students and consisted of 2 Rounds.

Round 1 – Case Study Solution Submission – Sunday, 10th Feb 2019

Teams submitted the solutions in a PowerPoint Presentation. The top 5 teams were selected for the second and final round.

Round 2 – On-Campus Presentation – Saturday, 16th Feb 2019

Top 5 teams presented their solutions to the Industry Experts at National Institute of Industrial Engineering (NITIE), Mumbai. No. of Registrations: 190, Prizes worth: Rs 25000, Winners: Team "Achilles", IIM Indore, First Runner up: Team "Cloud 9", NITIE, Mumbai, Second Runner up: Team "The one above all", MICA, Ahmedabad





#### c. Market Rook: Annual marketing magazine:

This year Market Rook took up latest trends in marketing and sales function. The magazine was distributed across 100+ B-schools and articles were collected through a pan India article writing competition.

Topics for Articles were:

- a) Influencer marketing: Current scenario and future of marketing in digital space
- b) Marketing communication in the digital era
- c) The new age of marketing and digital transformation
- d) Sustainable marketing: Past, Present and future
- e) Engagement Marketing: A broad spectrum for all industries
- f) AI in marketing: Possible costs and domains of implementation
- g) Digital Analytics & Consumer Insights
- h) AI & Digital Analytics in marketing
- i) Marketing Communication in the era of Digital Disruptions

Word limit was 1000-2000 words and Judging criteria was based on originality, content, writing style, infographics and clarity. No. of Registrations: 118, Prizes worth: Rs 3000, Winners: Team mavericks, NITIE Mumbai (Topic- artificial intelligence and digital analytics in marketing), First Runner up: Team kingslayer, K.J SIMSR

d. <u>Straight Talk: Panel Discussion</u>: The Panel Discussion is our flagship event which aims at bringing together the stalwarts from industry and academia across the country to share their experiences, vision and motivational thoughts with students.

The legacy of Marketing Interest Group, in organizing "Straight Talk" - panel discussion



as a part of Marksfete'19 and hosting industry leaders who share their insights on topics of relevance in the field of marketing, continued this year as well. The topic for the discussion was **Influencers**: A **New Era in Digital Marketing.** The eminent panelist were:-

- 1) Mr. Samrat Ghosh, Associate Vice President, Digital Marketing, Tata AIG General Insurance Company
- 2) Ms. Somasree Bose Awasthi, Head (Marketing), Personal Care and Aircare, Godrej Consumers Products Ltd.
- 3) Mr. Roy Eddington Charles, Mentor, Roy Eddington Charles & Associates (Moderator)
- 4) Prof. Ranjan Chaudhari, Associate Professor, NITIE
- **12. NITIE Premier League (Cricket Tournament)** With high stakes and even higher reputation to live up to NPL 9.0 was conducted from 17<sup>th</sup> to







24<sup>th</sup>February, 2019 at the NITIE grounds. The 9<sup>th</sup> edition lived up to the hype providing the thrills and spills of the cricketing game to the NITIEzens.

NPL started its auctions in grand style, with the team auctions happening first on 11<sup>th</sup> February. 7 Groups of owners competed against each other for grabbing the 6 teams up for sale. Out of the six teams, 2 were retained from last year and 4 were wildcard entries. The owners employed their well thought out strategies for procuring the team at the lowest price.

All eyes moved to the NITIE grounds on 17<sup>th</sup> February for the opening ceremony and inaugural match of NPL 8.0. The ceremony kicked off with the unveiling of the team jerseys. Prof. Utpal Chattopadhyay, PIC Cultural Committee, Prof. Ravindra Gokhale, PIC Sports and Prof (Ms) Priyanka Verma, PIC Cultural Committee graced the occasion with their presence.

This year the format of the event was same as the one followed in IPL. A total of 19 matches were played. The first leg of the event was a league in which all the teams played against each other. The top 4 teams based on the points and NRR qualified for the playoffs. The matches in the league stage was of 12 overs each and that of playoffs were 15 overs each.

The top 4 teams that qualified for the playoffs were: Punjab Warriors, Mumbai Marathas,



Hyderabad Sultans & Royal Ayodhya XI. The playoff saw some intense matches after which Mumbai Marathas & Punjab Warriors made it to the finals. The final was one for the ages. Mumbai Marathas posted a competitive total. Punjab warriors chased quite well in the tournament but in the final they lost quick wickets at the start which made them rethink their strategy. In the last 2 overs Punjab Warriors needed 43 runs which they managed to get in next 7 balls itself. The crowd were in awe of such hitting from the Punjab Warrior's batsman. This provided a befitting end to such a grand event.

13. Samiksha Corporate Panel Discussion (22 February 2019) A panel discussion was organized by the Team SAMIKSHA on 22 February 2019. The topic of the discussion was "Innovation, Entrepreneurship and Sustainability for India 2030". The distinguish panelist were Shri Rajat Nigam, CTO, Network







18, Shri Rajesh Patil, CTO, SAPLING ERP Services Pvt Ltd., Shri Chitransh Agnihotri, CEO, Equipshare, Shri Dipesh Karki, CTO, LenDenClub, Shri Ateesh Samant, CEO, IL & FS Energy.

#### 14. MANTRANA 8.0 (23 - 24 February 2019)

**a. NITIE Students' Consulting Club** conducted a workshop on "Data Analytics using Advanced Excel" to prepare the students for the upcoming internships.

Date: 23-24 February, 2019 Time Duration: 16 hours

Participants: 80

Trainer: Mr Altaf Karimi



b. <u>Consul Talk</u> The Topic of panel discussion of Mantrana was "Workforce of the future – The Competing forces shaping 2025". The discussion was held on the technologies impacting the work culture, new skills required



in the budding managers as well as B-schools graduates and transition in the human skill requirement by industries.

The event was graced by the presence of following eminent speakers who shared their valuable opinions on the topic

- 1) Mr. Sukanta Padhy: Chief Information Officer at ATC Tires Pvt Ltd.
- 2) Mr. Rajesh Hurkat: Head HR-South Asia, Mattel Inc.
- 3) Mr. Rahul Gupta : Senior Director, M&A, Cognizant
- 4) Prof. S.S. Bhattacharya: Strategic Management, NITIE



c. <u>Consul'Live</u> NITIE Students' Consulting Club conducted its annual event Mantrana 8.0 which has CONSUL'LIVE - Case study competition as one of its events. This time case was provided





by Bristlecone and was based on the problem of supply chain. It had an attractive cash prize of Rs 30,000 for grabs.

Continuing with the legacy of past Mantrana events, this year also witnessed a participation of 300+ teams from top B-Schools of India. The first round consisted of an Online quiz contest with questions related to consulting and supply chain.

A total of 120 teams were selected for the case study round. Selected teams had to provide their solution to the given case study by Bristlecone in PowerPoint presentation format.

The last round was held on 3<sup>rd</sup> March 2019 which saw 7 teams for NITIE, SIBM, IIM A competing in front of our esteemed jury members, Prof. Dr. Sachin Kamble – NITIE, Ms. Vasoon Sinha, Senior Principal Bristlecone and Mr. Debashish Roy, Senior Manager – Abbott.

The winners of CONSULLIVE, 2019 were High Knights (NITIE Mumbai), Runners Up where White Tigers (SIBM Pune) and 2<sup>nd</sup> Runners Up Frameworks (IIM Ahmedabad)

## 15. Ataria Jam (26 February 2019)

NITIE Cultural committee organized the event as tribute to Senior Students as they will be leaving the Institute very soon. The senior students reciprocated beautifully by participating in full swing. The participation from juniors and seniors were in huge amount.





The night was full of music, poems, dance, laughter and tears of joy. That's how the Juniors bid their farewell to seniors.

#### 16. Rotaract week -

a. Old Age Home Visit (03 Feb 2019)

The Rotaract Club of NITIE visited the elderly residing at the Little Sisters Home for the Poor, Andheri. We interacted with the residents of the Home and were left awestruck how one of our



new friends was playing the mouth-organ while another was selling beautiful handmade paper flowers. We even got a chance to enjoy Mohit Singh's soulful voice and music, one of many who joined us for the visit.

**b.** <u>Self Defence Workshop (07 February 2019)</u>
The Rotaract Club of NITIE organized a





workshop on self defence for all the female students, faculties and staff available in the campus during the Rota-week 2019. We called an experienced trainer, Mr. Harshad J Salla who has experience of 20+ years in the same. Simple and effective tactics were given to equip the girls well for the times they are posed with any kind of physical danger. The event was successful as a good number of students took part in it.

- The Rotaract Club of NITIE organized a newspaper collection drive in the campus. This is the flagship fund raising event organized by our Club. This year we collected 178kg of newspaper and raised a fund of 2600 from it. The fund collected is used in future events like old age home visit or orphanage visit so that we can carry some gifts and fruits for the needy people.
- **d.** Apparel Collection Drive (06 08 March 2019) Food clothing and shelter are the three basic requirements that humans can't live without. Rotaract this year during the Rotaract week, decided to reduce this gap by collecting apparels by hostel inmates and forwarding the collection to Goonj, An NGO that caters to the people in need of this because of poverty, natural disaster, lack of government support, etc.



e. Health Checkup Camp (7 – 8 March 2019)
Rotaract Club of NITIE organized a health checkup camp for the entire NITIE community.
We did a pact with the LensKart team who came in our campus and set up the eye checkup camp.



f. Breast Cancer Awareness Session (08 March 2019) In India,1 out of every 22 women suffer from breast cancer. The deadly disease is also seen in 1% of males. Awareness is a major way through which Cancer can be prevented or detected early. With this objective, the session was organized where Dr Namita Pandey, Consultant Breast Oncologist, Dr L H Hiranandani Hospital was invited for a talk.

She gave us insights regarding the probable causes, types of treatment and ways of prevention. The event was attended by





students, non-teaching faculty members and Dean of Student Affairs Professor Hema Date.

#### 17. SPICMACAY (06 March 2019)

A tree cannot survive without its roots and so do humans, cannot survive without the abiding culture. India is fortunate to have very rich culture and heritage. **SPICMACAY NITIE**Chapter had organized the classical dance



Kathak during a Classical evening held on 6th march 2019. **Padma Shri awardee Sunayana Hazarilal** and her 3 students performed the KATHAK form of Indian classical dance for the audience. The whole dance event was mesmerising in its own way.

### 18. FAREWELL to $2^{nd}$ Year Students (12 March 2019)

12<sup>th</sup> of March 2019 marked the day when NITIE bade ADIEU to the batch of 19-2017. The event, organised by NITIE's Cultural Committee, saw many cultural events like singing and dancing





performances by the junior batch as they gave a farewell to the outgoing batch. Prof (Ms) Hema Date, Dean(Student Affairs), Prof VB Khanapuri, Dean(Academics), Prof Shirish Sangle, (Dean(SRIC), Institute professors and administration staff too graced the occasion with their presence as a symbol of blessings

and good wishes to the outgoing students. The senior batch was felicitated by the dignitaries with mementos and the evening was wrapped up with a Special Dinner for all at the Taylor Hall Mess.







### **PLACEMENT**

REPORT ON FINAL PLACEMENTS OF PG DIPLOMA IN INDUSTRIAL ENGINEERING (PGDIE-47), INDUSTRIAL MANAGEMENT (PGDIM-24), INDUSTRIAL SAFETY & ENVIRONMENTAL MANAGEMENT (PGDISEM-17), POST GRADUATE DIPLOMA IN MANUFACTURING MANAGEMENT (PGDMM-04) AND PROJECT MANAGEMENT (PGDPM-04)

#### **BATCHES YEAR 2018-19**

Sr. No.	Particulars	Year:2018-19					
1	No. of Companies	125					
2	2 No. of Students Placed		PGDIM	PGDISEM	PGDMM	PGDPM	Total
	PPO	26	69	3	5	4	107
	LRP	19	57	6	9	23	135
	CRP	40	95	7	5	2	128
	Domestic	85	221	16	19	29	370
	Foreign	3	3	0	0	1	7
	Total	88	224	16	19	30	377
3	No. of Students yet to be placed	0	0	0	0	0	0
4	No. of Students opted out of Placement	1	1	0	0	0	2
5	Total number of Students in the batch	89	225	16	19	30	379
6	*CTC Details	PGDIE	PGDIM	PGDISEM	PGDMM	PGDPM	Overall
	i) Maximum Annual Salary						
	Foreign	22.00	22.00	-	-	22.00	22.00
	Domestic (Rs. Lacs)	30.00	46.50	25.50	25.55	25.58	46.50
	ii) Minimum Annual Salary						
	Foreign	22.00	22.00	-	-	22.00	22.00
	Domestic (Rs. Lacs)	8.19	10.00	8.61	10.96	8.19	8.19
	iii) Average Annual Salary						
	Overall Average Salary (Rs. Lacs)	18.89	19.23	14.90	15.38	16.62	18.56
	Overall Median Salary (Rs. Lacs)	18.50	18.70	13.50	15.00	15.50	17.87



#### **CENTRE FOR STUDENTS ENTERPRISE (NCSE)**

"Educational institutes in in general and technical institutions in particular play an imperative role in shaping the startup movement of a nation.

Start - Up Policy AICTE - 2016, AICTE. New Delhi

**'NITIE Center for Student Start-Ups** is established with the objective to encourage NITIE students to experiment with enterprise as part and for the purpose of better curricular learning. DST – NSTEDB has supported the initial funding of this initiative.

Over the years the center-initiated plethora of enterprising activities benefitting NITIE students. The center works in coordination with other centers like Mind to Market, Global center for SMES, Center for Supply Chain Management, NITIE incubation center.

#### **Core Committee members:**

- Prof. Ajay Kumar Panda
- Prof. Koteshwara Rao Naik
- Prof. Vivek Khanzode
- Prof. T Prasad, Faculty adviser

#### **NCSE Academic Activities:**

**Maha Mandi:** Annual field sales program called Maha Mandi is conducted during Aug 2018 where 600 students participated in field sales activity. NITIE Students avail this field experiment as ONE DAY START- UP and exposed to customer development, opportunities assessment,

**Student Enterprises:** A Program where in NITIE students are assigned to launch their own startups and operate these Classroom Companies along with studies so as to learn business and management. Currently NITIE students have launched 25 such Classroom Companies viz., Coherendtz.com, Miniates, Rytham Consultancy, Slotzero

**Entrepreneurship Awareness Camps (EACs):** NCSE conducted EACs in various colleges in Mumbai – Atherva College of Engineering, and Fr. Agnel College of Engineering Mumbai

**Entrepreneurship Development Elective:** NCSE developed focused startup for students at NITIE. As part of this elective course, 21 students have launched their student enterprises. It is often noticed that students in general develop a positive feeling for startup which otherwise difficult to come across.



Prof. Prafulla Kumar Padha with Various NITIE faculty members

# PHYSICAL FACILITIES AND INFRASTRUCTURE



Annual Report 2018-19



#### PHYSICAL FACILITIES AND INFRASTRUCTURE:

### **ESTATE**

#### 1) WORKS IN PROGRESS

Sr. No.	Name of Work
1.	Non-comprehensive annual maintenance contract for firefighting system, addressable fire alarm system and public address system at Academic cum Library Building and Taylor Hall Building.
2.	AMC for 04 nos. lifts at Taylor Hall.
3.	AMC for air conditioners and water coolers.
4.	AMC for 12 nos. Air Circuit Breakers.
5.	AMC for 16 nos. 60/80 water coolers and 01 no. AGCCP Aquaguard water purifier.
6.	Non-comprehensive AMC for hydro pneumatic system at main reservoir, Taylor Hall and ALB.
7.	Annual operation contract for HVAC plant (high & low side) at ALB.
8.	Non comprehensive operation of central HVAC plant at ALB. (confirmatory) Comprehensive AMC including spares parts & labour with oil & refrigerant of HVAC plant at ALB.
9.	Annual operation of OWC
10.	Annual maintenance & service contract for 750 kVA D.G. Set.
11.	Supply of casual labourers for various activities in NITIE campus.
12.	Annual maintenance and service contract for lifts at ALB
13.	Annual maintenance and service contract for window and split air conditioners and water coolers.
14.	Annual maintenance contract for 28 nos. AG-200 UV Aqua Guard water purifiers
15.	Replacement of damaged rain water pipes Type-II (1-16), Type-IV(8-15), Type-V(17-22), syndicate
16.	Painting to classrooms at ALB bldg
17.	Structural Audit of Prgati Vihat at NITIE
18.	Construction of UCR wall with chain link fencing along road side at CTS No. 67 B (newly fenced land)
19.	Providing soft boards at ALB classrooms, clusters depts.,
20.	One coat painting to PGPM No. 13/14 building
21.	Rewiring at Type IV room no. 16
22.	Replacement of damaged window frames and shutters at PGPM flat no. 15/16, Type V/18-21
23.	Water proofing treatment at terrace of Hoogli (Type III/1-8 building)
24.	Replacement of damaged rainwater pipe Type-II (1-16), Type IV (8-23), Type V (17-22)



Sr. No.	Name of Work
25.	Repairs to flat no. 26 of Sindhu building (Type IV/24-31)
26.	P/F water proofing tarpaulin sheet 300 GSM & FRP sheet temporary sheds for 1 monsoon period on terraces of placement cell,, Director's Bungalow at IITB, Syndictae balconies
27.	Maintenance 'B' check for 750 kVA D.G. Set
28.	Maintenance and service contract for 750 kVA D.G. Set

#### 2) WORKS COMPLETED

Sr. No.	Name of Work
1.	Providing fencing around open plot at Shiv Temple area.
2.	Purchase of various material for operating fire hydrant system, sprinkler system and addressable fire alarm system at Taylor Hall and ALB on auto mode
3.	Raising the floor level of duct and providing outlet at ALB duct
4.	Replacing G.I. gutter AC sheets above staircase of kitchen at Pragati Vihar
5.	One coat painting to Type-IV flat no. 8,31 and Type-V flat no. 8
6.	Internal/external painting of basement dining hall VIP dining hall at Guest House (Anand Vihar) for convocation
7.	Internal painting to ground floor passage bldg. For convocation
8.	Internal painting to main entrance staircase area from ground to Director office, Registrar office and ground passage of Admn. Bldg for convocation
9.	Painting to kerb stones along the road from new gate to OCA bldg to dispensary, OCA bldg, Guest House road, side walls of road to ALB
10.	Painting to security cabins at new gate and main gate, circle around Dr. Ambedkar statue and adjacent walls, m.s. railing at faculty lounge
11.	Repair to flat no. 4 of Type-IV (2-7) bldg
12.	Replacing water tank platform at terrace of Type-III (1-8) building
13.	Providing pandal and stage arrangement for XXIV convocation to be held on 8th Sep-2018
14.	Scientific cleaning and disinfecting of water tanks in NITIE
15.	Repairs to revolving chairs
16.	Replacing damaged false ceiling at old auditorium, patch repairs of false ceiling at dispensary and ALB.
17.	Painting to flat no. 15 & 24 Type-IV
18.	Painting to flat no. 7,8,14 of Type-IV
19.	Rewiring and installation of lights and fans at mess at Vikram Sarabhai Hall
20.	Replacing one number basketball post, 2 nos. acrylic boards and repairs to high mast pole.
21.	Fogging treatment around campus
22.	Painting to 1st and 2nd floor passage of Pragati Vihar



Sr. No.	Name of Work
23.	Painting to entrance and ground floor passage of Pragati Vihar
24.	One coat painting to Type V/16, PGPM-11 and Typr I/8
25.	Providing net barricade around volleyball court at Plot No. 67-B
26.	Painting work at OCA building, Admn. Building and Academic Building for SIP-2018 process
27.	Painting of seating arrangement around basketball and tennis court
28.	Replacement of broken toilet flooring at Type V/9, Type I/16, replacing broken toilet frame at Type V/9 and replacing broken flooring at Type IV/15
29.	Reconstruction of broken compound wall behind nursery towards Durgah
30.	Repairs to damaged flooring of Faculty room no. 606 at ALB
31.	Providing Aluminium door at server room area of Library at 1st floor of ALB
32.	Repairs to drainage chambers at Type II/17-32 building
33.	Arresting leakages at office room of Taylor Hall
34.	Preparation of cricket pitch at play ground
35.	Waterproofing at terrace (part) near water tanks at academic building
36.	Replacing balcony handrails at Type V (17-22) building
37.	Replacing damaged w/c at Type IV/03
38.	Providing fresh air duct at canteen of Taylor Hall
39.	Water proofing of tank platform of Type V (11-16), terrace of lift room (MDPH)

## 3) PROGRESS REPORT OF CONSTRUCTION OF ACADEMIC-CUM-LIBRARY BUILDING & HOSTEL

#### **Building**

### (a) Construction of Academic cum Library Building

Architect: Architect Hafeez Contractor

Project Management Agency: CPWD

Contractor: M/s Nagarjuna Construction

Co. Ltd.

Estimated amount put to tender:

Rs.24,87,71,850.00

Contract Value: Rs.35,74,76,155.00

Modified Preliminary Estimate submitted by C.P.W.D. (B.O.G.128th

dt.5.12.2008):Rs.43.20 Cr

Scheduled Date of Start: 27.05.2009.

Scheduled Date of Completion: 26.12.2010.

Revised Date of completion: 30.11.2011

Present status: Civil work has been completed as per the intimation received from CPWD. Institute has applied for occupation certificate.

Interior work taken up with CPWD.

Interior work in progress.

Building occupied from 06.06.2016.

Fire NOC obtained and process for OC initiated.



#### b) Construction of Multistoried Hostel Building

Architect: Shashi Prabhu and Associates

Project Management Agency: CPWD

Contractor: M/s Klassic Construction Co.

Ltd.

Estimated amount put to tender:

Rs.18,37,99,597.00

Contract Value: Rs.26,76,97,291

Modified Preliminary Estimate submitted by C.P.W.D. (B.O.G.128th dt.5.12.2008):Rs.40.50 Cr

Scheduled Date of Start: 06.03.2010

Scheduled Date of Completion: 05.11.2011

Revised Date of completion: 30.04.2012

Present status: Received Part Occupation Certificate for Ground plus six floors.

Fire NOC received.

Building occupied in June 2015.

Process for Full Occupation Certificate in progress.

Consent to Operate (First) approved by MPCB.

Final O.C. obtained from MCGM.

### c) Construction of road from the Vihar lake road side to Director's Bungalow

Project Management Agency: CPWD

Work in progress

### d) Construction of 22 kV sub-station including building

Project Management Agency: CPWD

Work in progress

### 4) ENCROACHMENT OF LAND AT NITIE: CONDUCTING SURVEY

#### Brief status report is as below:

- (1) There is approximately an area of 6 acres of land which has been encroached on date. The exact nos. of hutments eligible for rehabilitation subject to other parameters are required to be verified through a survey.
- (2) As per the prevailing rules and regulation framed by Maharashtra State Govt., NITIE has to contact the Collector (Encroachment/ Evacuation) for conducting the survey to identity the eligible/ineligible hutment dwellers and also to remove the encroachment from NITIE land. This course of action was directed by Secretary, Housing Department, Mumbai 32 vide his letter dt.20.05.2005.
- (3) As such NITIE vide its letter under Ref.1 Our letter dt. IE/2007/465/298 dt. 17.12.2007 requested Additional Collector (ENC) Eastern Suburbs, Mumbai to carry out the said survey. For this an NOC from Central Govt. has also been submitted to Addl. Collector (ENC), Eastern Suburbs, Mumbai.
- (4) Additional Collector vide his letter under Ref.2 Letter received from Additional Collector Encroachment / Evacuation), Eastern Suburbs, Mumbai dated 15.2.2008 replied and informed us to carry out the said survey by NITIE and submit the survey-list with proofs to his office and after that his office would obtain order from State Govt. and then his office would decide the eligibility/ineligibility of hutment dwellers.
- (5) On 22.2.2008 this matter was discussed with Shri Jagdale, Additional Collector (Encroachment/Evacuation), Eastern Suburbs, Mumbai. Although he accepted that it is a duty of his office to carry out the survey he showed



his inability to carry out survey due to shortage of manpower. He suggested that survey may be carried out by Institute or by engaging private surveyor or NGO and also he gave some sample proforma and related Govt. G.R. copy.

- (6) Considering above facts following options were available to carry out the survey:
  - (i) To carry out the survey by Institute
  - (ii) To carry out the survey by engaging Private Agency or NGO
  - (iii) To insist the State Govt. to carry out the survey.

As this Institute has no expertise and sufficient manpower to carry out the survey so Option-(i) is not suitable. For option No. (ii) Institute has to incur the expenditure. So NITIE has taken a decision to opt option III as it is the best, most reliable and there will be no expenditure except a nominal fee as fixed by State Govt.

- (7) After finalization of list Institute has to approach MHADA for Slum Rehabilitation Scheme.
- (8) As such NITIE requested Principal Secretary, Housing, Govt. of Maharashtra to carry out the survey to identify the eligible/ineligible hutment dwellers on the encroached land of NITIE vide letter No. IE/2008/G-65/154 dt. 09.05.2008. But there is no response from them till date. Hence this matter was pursued with Government of Maharashtra.
- (9) With reference to above said letter Govt. of Maharashtra vide their letter No.Mis.2008/CR 178/Slum-2 dt.11.12.2008 informed to NITIE that Maharashtra Govt. is not empowered to conduct the survey of the encroached land other than the land belonging to State and Semi-Govt. and requested to carry out the survey of encroached land of NITIE including the list of hutment dwellers and map of the said area through NGO. If required Maharashtra Govt. will only help this Institute to ascertain

the eligibility of hutment dwellers on the basis of NGO report. It has been also informed that after receipt of report from NGO appropriate action will be taken by Maharashtra Govt. Now NITIE has enquired vide letter No.EE/2009/82 dt.7.8.2009 the Maharashtra Govt. regarding whether the NITIE land encroachment/ unauthorized occupation is coming under Slum Rehabilitation Scheme or not. On confirmation of this NITIE will take this matter with MHRD and plan further course of action. In reply to this Maharashtra Govt. vide its letter No.SRA/ ENG/Desk-1/G.R.V./006/5 dt.4.12.2009 has replied that as per prevailing policy, the S.R. proposal on the land owned by Central Govt. Autonomous Body/PSU is accepted after receipt of NOC from the concerned authority.

- (10) Now this matter is being discussed with SRA Officials before applying for NOC for SRA Scheme to HRD Ministry.
  - Regarding Slum Rehabilitation Scheme implementation, information from MHADA has also been sought vide our letter No.EE/G-118-B/2010-11/30 dt.7.5.2010. Their reply is awaited.
- (11) The above facts were considered in the 131st meeting of Board of Governors, NITIE held on 26.6.2010, and it was decided to take-up the matter with the Ministry of HRD so that the Govt. of India can suitably refer the matter to the Govt. of Maharashtra for early settlement of the issue. Now this matter is being taken up with Govt. of India for settlement of this issue. In this regard Ministry has been requested vide letter No.EE/2010/G-118C/272 our dt.28.10.2010 to take up this matter with Govt. of Maharashtra. Govt. of India is now being pursued vide our Letter No.EE/2011/351 dt.8.3.2011.
- (12) A letter dated 08.11.2013 was sent to Deputy Secretary (TEL), appraising him of the land details and earlier correspondences. It was



- requested by the Institute to take up this matter with the Govt. of Maharashtra for suitable further necessary action for early settlement of the issue.
- (13) Letters dated 08.11.2013 and 27.02.2014 were sent to Senior General Manager (Business Development), NBCC Limited requesting them whether NBCC could undertake implementation of SRA Scheme in case of land owned by Central Govt. Autonomous body. In its reply NBCC expressed their inability to take up the work.

### 5) REPORT ON LAND MATTER AND ENCROACHMENT OF NITIE LAND.

- 1) A letter dt.2.2.2013 was received from Subdivisional Officer, Office of the Mumbai Suburban District mentioning charges for N.A. use of 250193.41sq.m. land including penalty amounting to Rs.57,44,438/- under Section-45 of Maharashtra Land Revenue Code, 1966. The matter was discussed with NITIE, Legal Adviser M/s. A.M. Nathani & Associates. A reply dt.14.2.2013 was submitted to the Sub-divisional Officer, Office of the Mumbai Suburban district mentioning exemption for Educational Institutions from paying N.A. charges under Clause-4 of Section-117 as well as Clause-5 of the said section.
- Letter ref. no. ACS/22844/AEBF dated 9.11.2012 was received from Assistant Municipal Commissioner 'S' ward, BMC mentioning unauthorized construction being carried out on Aarrey land.
- 3) Letter ref. no. ACS/22844/AEBF dated 30.01.2013 was received from A.E. (B & F) 'S' ward, BMC mentioning unauthorized construction being carried out on NITIE land. (Aarrey mentioned in earlier letter corrected as NITIE land).
- 4) Letter ref. no. ACS/34294/AEBF dated 18.02.2013 received on 25.02.2013 from to

- "Assistant Municipal Commissioner 'S' ward, BMC" mentioning encroachment by local antisocial elements.
- 5) The matter was brought to the notice of Legal Adviser NITIE, who prepared a draft reply to BMC.
- 6) Note dated 20.02.2013 was put up for approval of the draft reply to BMC 'S' ward. The approval was received on 25.02.2013.
- 7) Note dated 20.02.2013 was put up for approval of the draft reply to BMC 'S' ward. The approval was received on 25.02.2013.
- 8) The reply dated 26.02.2013 was sent to "Assistant Municipal Commissioner 'S' ward, BMC", mentioning willingness of the institute for paying necessary demolition charges.
- 9) Letter ref. no. ACS/37793/AEBF dated 14.03.2013 received on 20.03.2013 from A.E. (B & F) 'S' ward, BMC mentioning that 29 shanties were demolished on 06.03.2013 on the basis of letter dated 26.02.2013 received from NITIE. It is stated in the letter that the demolition charges of Rs. 11,349/- are required to be paid to BMC by the institute. It was further mentioned in the letter that since NITIE is the landlord of the said land, it should protect its land from any further encroachment/ unauthorized construction work and BMC should not be held responsible for the same. Payment of Rs. 11,349/- vide cheque no. 177724 dated 28.03.2013 was made accordingly.
- 10) Reconstruction of demolished hutments was observed again. Note dated 28.3.2013 was put up for approaching BMC for demolition of these hutments. Accordingly, letter ref. no. EE/2013/564 dated 05.04.2013 was sent to "Assistant Commissioner 'S' ward, BMC" requesting demolition of the encroachments.
- 11) Subsequently, letter ref. no. EE/2013/78 and EE/2013/79 dated 27.05.2013 were sent to Assistant Commissioner 'S' ward and Assistant Engineer (B & F) 'S' ward BMC.



- 12) Assistant Engineer (B & F) 'S' ward BMC vide its letter ref. no. ACS/665/AEBF dated 24.6.2013 intimated the Institute that they have demolished the unauthorized construction on 20.6.2013 and requested for the payment of demolition charges amounting to Rs. 12,318/-.
- 13) A letter ref. no. EE/2013/202 dated 18.09.2013 was sent to "Assistant Commissioner 'S' ward, BMC" for removal of encroachment on open land and construction activity carried out at Dayabhai Chawl. In response a letter dated 17.10.2013 was received from Sr. Inspector (Ench.) 'S' Ward, mentioned that they have taken encroachment removal action and have seized the goods.
- 14) Some development were observed relating to renovation and expansion of Gaondevi temple. The matter was immediately reported to BMC and Powai Police Station. However, no support was received from the BMC and Police in this regard. Legal notices were served to BMC, Police and other people involved in the act. A case has been filed with Bombay High Court. Draft letters were sent to the Ministry for taking up the matter with The Additional Chief Secretary, Home Department, Govt. of Maharashtra and The Principal Secretary, Deptt. of Urban Development, Govt. of Maharashtra
- 15) A letter dated 6.2.2014 was received from Assistant Engineer 'S' BMC in response to an e-mail sent by Director to Municipal Commissioner, MCGM. A letter dated 20.2.2014 was sent to them.
- 16) The long pending issue related to Subdivisional Officer, Office of the Mumbai Suburban District mentioning charges for N.A. use of 250193.41sq.m. land including penalty amounting to Rs.73,90,712/- and further fine of Rs.9,85,762/-under Section-45 of Maharashtra Land Revenue Code, 1966. The matter was discussed with NITIE, Legal Adviser M/s. A.M. Nathani & Associates. A reply dt. 4.2.2013 was

- submitted to the Sub-divisional Officer, Office of the Mumbai Suburban district mentioning exemption for Educational Institutions from paying N.A. charges under Clause-4 of Section-117 as well as Clause-5 of the said section. The hearing was attended on 13.2.2014 and the matter was closed as desired by the Institute.
- 17) The District Supdt. of Land Records, rejected the appeal filed by Sir Mohd. Yusuf Trust, against the order of City Survey Officer Mulund.
- 18) Demarcation of Institute land carried out by City Survey Office Mulund, Mumbai. (23.05.2015)
- 19) The work of fencing of the Institute land under CTS 54(A) & 67(B) has been completed. (25.01.2017)
- 20) The work of fencing of the Institute land under CTS 34 & 35 has been 90% completed. (30.03.2017)
- 21) Two illegal structures were demolished by the Institute. (30.03.2017)
- 22) Breach of fencing reported by security, police complaint filed. (17.04.2017)
- 23) Notice issued for eviction. (11.08.2017)
- 24) Case filed by Mr. Harishankar Sarjuprasad Pandey against the Institute regarding Rameshwar temple and 14 rooms.
- 25) Director met the DMC (Special) (Removal of encroachment) MCGM regarding removal of encroachments from the Institute land. (12.01.2018)
- 26) Notice regarding illegal construction issued to Shri. Tatyarao Ambhure. (10.01.2018)
- 27) Notice regarding illegal construction issued to Shri. Dileep Kshetri.(19.02.2018)
- 28) Asurveybeing carried out by Slum Rehabilitation Authority (SRA) of Govt. of Maharashtra of the slums on Government land.



- 29) Deputy Municipal Commissioner (Special) (Removal of Encroachment), MCGM visited the Institute on 05.03.2018 in relation with encroachment issues faced by the Institute.
- 30) Notice under sub-section (2) of Section 5A of the Public Premises Act (Eviction of Unauthorized Occupants Act), 1971 issued to Shri. Bharat Mote. (11.04.2018)
- 31) Letter sent to AMC 'S' Ward for illegal construction on Institute land. (11.04.2018)
- 32) Letter sent to Powai Police Station for illegal construction on Institute land. (11.04.2018)
- 33) Notice under sub-section (2) of Section 5A of the Public Premises Act (Eviction of Unauthorized Occupants Act), 1971 issued to Shri. Gopal M. Bunde. (16.5.2018)
- 34) A meeting was convened with Director (Induction) Maharashtra State Security Corporation to discuss the matter pertaining to NITIE security. (01.06.2018)
- 35) Aletter dated 01.06.2018 received from AE (B&F) 'S' Ward BMC in response to complaint sent by the Institute regarding illegal construction. It is mentioned that the Institute has to proceed in matter as "The Public Premises (Eviction of Unauthorised Occupants) Act, 1971 under section 4,5,5A,5B,5C etc. Necessary assistance will be provided in manner of man power and machinery on pre requisition by BMC.
- 36) Matter related to digging of the road by MSEDCL taken up with the MSEDCL officials. The work was which resulted in law and order problem. (05.06.2018)

- 37) Meeting with Hon'ble MoS during his visit to Mumbai. MoS enquired about encroachment issues faced by the Institute. (21.07.2018)
- 38) Details sought by the legal advisor M/s AM Nathani & Associates like photographs, video clips and court judgements were mailed on 30.09.2018 regarding the court matter Suit No. 936 of 2017.
- 39) Tree Plantation and Swatch Bharat Abhiyan Development of Sports Facilities of the fenced land outside new gate. Sports activities were conducted under Josh-2018. (October-2018).
- 40) Notice under sub-section (2) of Section 5A of the Public Premises Act (Eviction of Unauthorized Occupants Act), 1971 issued to Shri. Abhijit Vasant Pathade. (23.10.2018)
- 41) Received the update from the legal advisor regarding court hearings on land matters:
  - 1. SUIT No. 2293 of 2017 adjourned to 19.11.2018 (next hearing on 17.12.2018).
  - 2. SUIT No. 936 of 2017 adjourned 8.1.2019
- 42) Notice under sub-section (2) of Section 5A of the Public Premises Act (Eviction of Unauthorized Occupants Act), 1971 issued to Shri. Chandan Prasad. (16.11.2018)
- 43) Notice under sub-section (2) of Section 5A of the Public Premises Act (Eviction of Unauthorized Occupants Act), 1971 issued to Shri. Ashpak Mohammad Hucche (19.11.2018)
- 44) Notice under sub-section (2) of Section 5A of the Public Premises Act (Eviction of Unauthorized Occupants Act), 1971 issued to Shri. Guddu Khan. (13.12.2018)



#### **NITIE DISPENSARY**

The National Institute of Industrial Engineering's (NITIE's) Dispensary is well managed with well qualified Paramedical and Medical staff members under the control and guidance of **Medical Officer**. NITIE Dispensary provides services to all PGP and PhD. students, including all staff and faculty members and their families.

The NITIE Dispensary has **Doctors, paramedical staff Nurse and Compounder** for **24 hours** and to attend emergencies.

#### **Working Hours:**

Monday to Friday: 9.00 am to 9.00 pm

Saturday: 8.00 am to 2.00 pm

#### Facilities:

- ➤ Consultancy Room 2
- ➤ Emergency Management Room 1 (ECG, Fowler bed, I.V. stand, Ambu bag, Suction machine, Portable O2 cylinder, Glucometer)
- Physiotherapy Room 1
- ➤ Dental Room 1
- Dressing Room 1 (O2 Cylinder, Nebulizer)

The Following visiting Doctors are available in Dispensary.

**1. Physician:** Physician consulting Doctor visits NITIE Dispensary fice days a week for four hours.

- **2. Gynecologist:** One Gynecologist consulting Doctor visits NITIE Dispensary once in a week for 2 hours to take care of ladies patients.
- **3. Ophthalmologist**: One consulting Ophthalmologist visits once in a week for 2 hours and take care of all the patients.
- **4. Dentition**: One Dental Consulting Doctor visits NITIE Dispensary five days a week for two hours. NITIE Community is been beneficiary of these services provided by NITIE Dispensary.
- **5. Homeopathy:** Presently three hours twice a week homeopathy medicines and consultation is been made available for NITIE Community by qualified Doctors.
- 6. Counselor: Being understood the academic pressure and hectic work schedule, the service of one qualified counselor has been arranged in NITIE Dispensary. This service is available twice a week for two hours.
- 7. **Physiotherapist**: Physiotherapist consultant is always available Monday to Friday for two hours in NITIE Dispensary to take care of NITIE Student and Employee community.

**Ambulance Service**: One full-fledged ready Ambulance is been hired on contract and made available for 24X7 to NITIE Community.



#### **SECURITY & TRANSPORT DEPARTMENT**

NITIE has 4 security guards (Watchman) at present; further NITIE has outsourced the security work to Maharashtra State Security Corporation (MSSC). The security personnel are always on high alert. NITIE has 63 acres land and its surrounding has been dwelled by encroached dwellers which is challenging job to security personnel. The encroachers, time and again are involved in extension of construction with the present occupied structure which need high vigilance and prevention. Whenever such incidents take place the security personnel deployed in NITIE premises take up the matter with BMC and Powai Police Station for legal course.

The security personnel deployed in NITIE premises patrols 24x7 including land of NITIE. At present there are 09 designated posts spread across NITIE Campus.

As and when the need arises, the vehicles from travel agencies are also hired for providing transport facility to the students.

In addition, the institute has one corolla car which is used for official travel of the Director of the institute.

Superintendent (Security & Transport Incharge), Dy. Registrar (Administration), Registrar and Prof. Incharge (Security & Transport) are looking after the work for smooth functioning.

### VISITS, WORKSHOPS AND CONFERENCES

a. Foreign Experts visits to NITIE



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#### FOREIGN EXPERTS VISITS TO NITIE

National Institute of Industrial Engineering (NITIE) Mumbai is well known for keeping the pace with new technology and adopting it into its curriculum to give an edge to students and make them future ready. NITIE is making this happen by continuous interaction of students with global industry leaders as well as recognized international academicians. Listed below are a series of visits / events related to collaborative efforts of NITIE during the academic year 2018-2019

- 1. Mr. Ashish Chandra, Professor at University of Houston clear lake- Texas shared his wisdom with fellow students at NITIE on 16<sup>th</sup> August 2018. Mr. Chandra is a well-known academician in healthcare administration globally and serves on advisory boards of several educational institutes of Turkey and India. He has almost 75 publications in journals, 2 edited books, 10 book chapters and over 250 publications in conference proceedings. He has also served as a president of 4 major international academic organizations and program chair of over a dozen international conferences.
- 2. NITIE had organized a session on 8<sup>th</sup> August 2018 with Zachary Burt of Columbia University, New York; on innovative Thinking and Interdisciplinary Research: Wicked problems and Creative solutions for Water and Sanitation from around the World. Zachary Burt earned his PhD at the Energy and Resources Group at the University of California, Berkeley in 2015. Mr. Zachary researches efficient, effective and equitable ways of incorporating climate risk into urban water management policy in low income countries, especially focusing on water and sanitation access for marginalized groups. He has researched the costs and benefits of urban water service improvements, willingness

- to pay for household water treatment and gender inequities in sanitation access. He has conducted field research and assessed urban water policies in California, India and Kenya.
- 3. Mr. Jayesh and Mr. Jonathan also visited NITIE on August 2018. Jayesh Dadlaney is a Senior Public Affairs Specialist with two decades of experience in Public Diplomacy, Program Management, Research, Marketing, Networking and Relationship Building, Administration, Budgeting, and Operations. Jonathan Hwang is serving in Consulate General Mumbai as a Public Diplomacy Officer. Previously served in Consulate General Ho Chi Minh City as a Political Officer and Consulate General Shenyang, China as a Consular Officer.
- 4. Several education fairs have been attended by student members & PIC of IRC and number of leads have been obtained. Formal invitation mails have also been sent to these universities for possibilities of collaboration with NITIE. Outcome of discussion with Rennes Business School is positive so far.
- 5. NITIE had an honor to have Mr. Rakesh Kumar, director of Practera on campus on 22<sup>nd</sup> August 2018. He shared the noble motive behind Practera to transforming education and training globally that enable employers, students and educators to work together by experiential learning and thus helping to unlock potential of 1 billion people globally.
- 6. In Sep 2018, 4 students from PGDIM and 1 student from PGDIE course went for student exchange program to EC Lille-Tarun Bhambani, Swastik Mittal, Ganji Muni Narayana, Pravin MV and Rabi Shankar Debbarma have successfully completed their term in the host university



- 7. Prof. Israr Qureshi from Australian National University visited NITIE campus on 25<sup>th</sup> Jan 2019. Prof. Qureshi has his research interests in various dimensions of sustainability and currently handles academic courses on Social Entrepreneurship. During his visit to NITIE Prof. Qureshi had discussions with Prof. Prasad, Prof. Anju Singh & Prof. Sushmita Narayan on topics related to social entrepreneurship, sustainability & circular supply chains. The professor also had a brief interaction with students of NITIE
- 8. 4 students from PGDIM and 1 student from PGDIE from NITIE have been selected for exchange to EC Lille and will be travelling to host university in Sep 2019. Students have been allotted courses on advanced topics such as smart factory, intelligent systems & advanced communication network etc
- 9. Prof. Girish Iyer from International Relation, Charles Darwin University, Australia and Ms Mahnaaz Khan of the Australian Trade and Investment Commission (Austrade), Mumbai visited NITIE campus on 29<sup>th</sup> Jan 2019 to explore further opportunities of collaboration between NITIE and Darwin University. NITIE and Austrade are aggressively pushing to have coherent partnerships between NITIE and Australian universities



Mr. Ashish Chandra at NITIE Campus

- 10. MoUs of 3 universities and at the final stage of signatures (University of Fortaleza, Ohio University, University of Zagreb) after revision from both ends. Hard copies of signed MoUs have been sent to NITIE by the partner universities.
- 11. Prof. Anju Singh and Prof. Priyanka Verma visited EUROMA conference and interacted with dignitaries from various international universities. Invitations have been sent to International Relation team of the universities to explore future possibilities of a collaboration
- 12. Director of NITIE Prof. Karuna Jain visited University of Houston, Clear Lake, USA.
- 13. NITIE signed MoU with NIT Raipur on 5<sup>th</sup> Feb 2019. Proposal has been sent to IIM Kozhikode to build a synergic partnership between both the universities.
- 14. NITIE signed agreement with IIM Kozhikode.



Mr. Zachary Burt shared his wisdom with NITIE students and faculties





Prof. Anju Singh & Prof. Priyanka Varma at EurOMA SOSC forum, Sweden



Prof. Israr Qureshi from Australian National University with students of NITIE



Prof. Girish Iyer of Charles Darwin University and Ms Mahnaaz Khan from Austrade with student co-ordinators of International Relations Cell



NITIE visit to IIM Raipur



MoU signing between NITIE and NIT Raipur



NITIE initiated talks with University of Houston, Clear Lake





NITIE signed Agreement with IIM Kozhikode

### **NITIE ALUMNI ASSOCIATION**



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#### NITIE ALUMINI ASSOCIATION

NITIE Alumni Association was registered in 1976, under registration of Pubic Trust (Reg. No.BOM488/76 GBBSD of 31.12.1976) – F- 4314B, At NITIE, Vihar Lake, Mumbai -87.

#### A. Annual General Body Meeting:

NITIE Alumni Association organized 34<sup>th</sup> Annual General Body Meeting on 03<sup>rd</sup> November 2018, at NITIE, Mumbai. The members discussed about the various activities of NAA and also shared their views. Annual Statement of Account for the year 2017-2018 was passed by the members.

Following is the list of Executive Committee Members for year 2018-2019

President Prof. (Ms.) Karuna

Jain, Director, NITIE.

Chairman Mr. Dev Bhatttacharya

Vice-Chairman (PGP) Mr. Nikhil Gurjar
Vice-Chairman (MDP) Dr. P.R. Kondekar
Hon. Secretary Prof. (Ms) Sumi Jha
Hon. Treasurer Prof. Rakesh Raut

#### **Zonal Representative**:

West Zone (PGP): Mr. Kishore Kulkarni West Zone (MDP): Lt.Co.(R) Rameshwar Naik East Zone (PGP): Mr.Paramjit Singh Sathi East Zone (MDP):-

North Zone (PGP): Mr. Rajiv Gandotra

North Zone (MDP): -

South Zone (PGP): Mr.Das Malay

South Zone (MDP):-

The Annual General Body Meeting was attended by 72 members of NAA, NITIE Faculty members and students' representatives. Sansmaran was attended by 320 members.

#### B. Alumni Activities:

#### 1. Felicitation:

Distinguished Alumnus Awards were given to the outstanding alumni in the year 2018, Distinguished Alumni Award was given to Mr. Atanu Mukerjee, Mr.Bishnupada Sethi and Mr. Shatrujeet Singh Kapoor. In the year 2018 a new award promising Young Alumnus Award was instituted by NAA. The first Promising Young Alumnus award was given to Mr. Mayank Khandelwal and Mr. Disgant Haria, Ms. Aparna



Annual General Meeting No. 34



- Natarajan and Mr. Swapnil Joshi during Annual Alumni Meet Sansmaran, on 03<sup>rd</sup> November, 2018
- Following PGP, Fellowship and MDP participants were felicitated during Sansmaran, on O3<sup>rd</sup> November 2018



Mr. Mayank Khandelwal receiving PYA



Mr. Digant Haria receiving PYA



Mr. Swapnil Joshi receiving PYA

#### Following batches to be felicitated:

- a) 40 years of completion (PGDIE 6 Batch)
- b) 25 years of completion (PGDIE 22 Batch) Silver Jubilee Batch
- c) 10 years of completion
  - i. PGDIE 36 Batch
  - ii. PGDIM 13 Batch
  - iii. PGDISEM 6 Batch
  - iv. PGDITM 1 Batch
  - v. Fellow Students Completion year 2008
  - vi. MDP Participants Completion year 2008
- Regional Alumni Meets at various cities like Bangalore, Delhi, Mumbai, Kolkata, Pune, Chennai and Hyderabad was organized during April-May 2018
- Interaction with alumni through alumni website (<u>www.nitiealumni.org</u>) and networking sites like Yahoo group, Google group, LinkedIn, and Facebook etc.
- 4. Involvement Alumni in institute administration as Members of Board of Governors and Academic Council of NITIE.
- 5. NAA explores the opportunities for project and placements to the current students through alumni in their Organizations.
- 6. NAA organizes periodical guest lecturers of alumni and interaction with students to develop their knowledge base.
- Prof. (Ms.) Karuna Jain, Director & President NAA released "AlumNiti" the alumni magazine on 03<sup>rd</sup> November, 2018 at the Annual Meet "Sansmaran" - 2018.
- 8. Institute involved various alumni to be part of admission process of PGDIM/ISEM/IE/MM/PM Courses. This was initiated to get industry perspective at the time of student admission.





Annual Alumni Magazine "AlumNiti" was Release

9. Faculty Award/Student (Ragan & Madala)
Scholarship, was Given on 03<sup>rd</sup> November,
during Sansmaran' 2018:

Best faculty award for special contribution to society /student community sponsored by Mr. Dev Bhattacharya was given to following faculty:

• Prof. T.Prasad – Faculty Excellence Award



Best Faculty Award to Prof. T. Prasad – Faculty Excellence Award

Best faculty award for excellence in research sponsored by Dr. Rakesh Agrawal was give to

 Prof. Rakesh Raut - Excellence in Teaching and Research



Best Faculty Award to Prof. Rakesh Raut

2. Purnima Sangale. - Excellence in Teaching and Research



Best Faculty Award to Prof.(Ms.) Purnima Sangale

Ragan Scholarship award sponsored by Mr. Ashwin Rangan was given to following students:

1. Ms. Priyanka Sachan



Rangan Scholarship to Ms. Priyanka Sachan

2. Ms. Ankita Mishra



Rangan Scholarship to Ms. Ankita Mishra



Madala Scholarship award sponsored by Mr. Srini Madala was given to following students:

#### 1. Mr. Anurag Emmadi



Madala Scholarship to Mr. Anurag Emmadi

#### 2. Mr. Nilay Panday



Madala Scholarship to Mr. Nilay Panday

#### 3. Mr. Lionel Gracias



Madala Scholarship to Mr. Lionel Gracias

#### 4. Mr. Shubrajyoti Bhattacharya



Madala Scholarship to Mr. Shubrajyoti Bhattacharya

#### **Executive Committee Meeting:**

NITIE Alumni Association organized Executive Committee Meetings on, 17th August, 2018 & 26th March, 2019

Membership Position: As on 31.03.2019

Membership Position: Total Membership: 8365 (PGPs: 6105 MDPs: 2166 Fellows: 94)

### INSTITUTE EVENTS

- a. XXIV Convocation NITIE
- b. Hindi Implementation
- c. NITIE Cultural and Welfare Activities
- d National Safety Week



Annual Report 2018-19



#### **XXIV CONVOCATION - NITIE**



On 8<sup>th</sup> September 2018, National Institute of Industrial Engineering (NITIE) came alive with celebrations, as the Institute honoured the graduating class of students at the XXIV Annual Convocation Ceremony. The event was graced by **Dr. Ganesh Natarajan, Chairman – 5F World and Social Venture Partners India**. 404 students of PGDIE-XLVI, PGDIM-XXIII, PGDISEM-XVI, PGDMM-III and PGDPM-III Batches have been awarded Degree/Diploma certificates and 15 students have been awarded Fellow of NITIE.



#### HINDI IMPLEMENTATION

#### **OFFICIAL LANGUAGE ACTIVITIES:**

#### 1. HINDI WORKSHOP (April - June, 2018):

A one day Hindi Workshop (April - June, 2018) was organised in NITIE on 10th May, 2018. Nine Officers / Employees of the Institute participated in it. The eminent personalities Working for the progress of Hindi Delivered lectures on various subjects ie. Correct use of Grammar and Spelling in Hindi, Information Technology & Hindi, Official Correspondence & Practice, Know Yourself Better through Hindi etc. Shri. H. K. Sapre, Mrs. Sulbha Tupe, Mrs. Suchita Shirwadkar, Mrs. Reshma Tare, Mr. V. A. Patankar, Mrs. S.S Thosar, Mrs. Archana Padman, Mrs Sonal Shinde, Shri P B Parab were present in this workshop. Md. Aftab Alam, Hindi Officer, NITIE conducted the programme and gave vote of thanks.



Dr. M.L. Gupta, Asstt. Director(OL), Central Hindi Training Sub-Institute, Navi Mumbai delivering his lecture to the participants of Hindi Workshop.

#### **2. HINDI WORKSHOP** (July-September, 2018):

A one day Hindi Workshop (July-September, 2018) was organised in NITIE on 24<sup>th</sup> August, 2018. Ten Officers / Employees of the Institute participated in it. The eminent personalities Working for the progress of Hindi delivered lectures on various subjects ie. Importance of communication in official work, Official work in Hindi: Practical aspects, Implementation

of Official Language Policy and Annual Programme, Official Noting-Drafting and Practices etc. Shri. K. Harikutty, Shri Ramotar Kumawat, Mrs. Jayashree V Nair, Shri G. M. Kokani, Shri J.B. Desai, Shri N.D. Wankhade, Shri R.H. Gawas, Shri S.V. Parab, Shri M. Marimuthu and Shri S.M. Sonkamble were present in this workshop. Md. Aftab Alam, Hindi Officer, NITIE conducted the programme and gave vote of thanks.



Dr. Rajeshwar Uniyal, Deputy Director(OL), CIFE, Mumbai delivering his lecture to the participants of Hindi Workshop.

### **3. HINDI WORKSHOP** (October - December, 2018):

day Hindi Workshop A one (October-December, 2018) was organised in NITIE on 27th November, 2018. Twelve Officers/ Employees of the Institute participated in it. The eminent personalities working for the progress of Hindi delivered lectures on various subjects i.e Implementation of Official Language Policy and Annual Programme, Information Technology and Hindi, Use of Defined Terminology & Practice and Grammer & Spelling in Hindi: Easy Solutions etc. Shri Prashant Salunkhe, Mrs. Lakshmi Narayan, Shri A.K.Vishwakarma, Shri C.N. Mokal, Shri Mahesh Kumar M. Shri P.S.Shivaprasad, Shri L.V.Varthe, Shri VG Yadav, Shri Sanjay S Rane, Mrs. RatnaKumari S Nair. Shri Mahesh E Rane and Shri S.K.Verlekar were present in this workshop. Md. Aftab Alam, Hindi Officer,





Shri Rajesh Kumar, AGM (Official Language), Union Bank of India, Mumbai delivering his lecture to the participants of Hindi Workshop.

NITIE conducted the programme and gave vote of thanks.

#### **4. HINDI WORKSHOP** (January - March 2019):

A one day Hindi Workshop (January - March, 2019) was organised in NITIE on 20th February. 2019. Six Officers/Employees of the Institute participated in it. The eminent personalities working for the progress of Hindi delivered lectures on various subjects i.e. Official Language Implementation: Problems & Solutions; Official Noting-Drafting and Practice; Problems and remedies of Grammar & Spelling in Hindi; Use of defined terminology and practice etc. Shri B.T. Havelikar, Shri S.R. Rasal, Mrs. Vandana Parkhal, Shri Ashok Gadikar, Shri Ram Singh Rawat and Shri Abhijeet Pathade were present in this workshop. Md. Aftab Alam, Hindi Officer, NITIE conducted the programme and gave vote of thanks.



Shri Shailesh Kumar Malviya, DGM(Official Language), Bank of India, Mumbai delivering his lecture to the participants of Hindi Workshop.

### 5. O.L. IMPLEMENTATION COMMITTEE MEETINGS:

Four "Official Language Implementation Committee" meetings were held on 15.06.2018, 29.08.2018, 14.12.2018 and 06.03.2019 during the year 2018-19. Prof. Karuna Jain, Director, NITIE & Chairperson of the Committee presided over the meetings. The Committee discussed in detail and appropriate decisions were taken regarding the implementation of Official Language Hindi in the Institute.

### 6. HINDI CO-ORDINATION COMMITEE MEETINGS:

Four "Hindi Co-ordination Committee" meetings were held on 15.06.2018, 29.08.2018, 14.12.2018 and 06.03.2019 during the year 2018-19. The Committee discussed in detail with Section Heads and appropriate decisions were taken regarding the implementation of Official Language Hindi in the Institute.

#### 7. HINDI FORTNIGHT CELEBRATIONS - 2018

NITIE celebrated Hindi Fortnight from 3<sup>rd</sup> September to 14<sup>th</sup> September 2018. Debate, Questionnaire, Cross Word, Dictation, Noting writing, Memory Power, Hindi Typing, Hindi Stenography, Self written Poetry, See & Write Legibly, Essay Writing, etc were organised on this occassion for Faculty Members, Officers, Staff and Students. On 28<sup>th</sup> September 2018 in the Valedictory function, the prizes & letters of appreciation to about 50 winners of various Hindi competitions were distributed.

At the valedictory function, Chief Guest Shri Bhuvendra Tyagi, News Editor, Navbharat Times, Mumbai congratulated the winners of the competitions of Hindi fortnight and appreciated to all for regular use of Hindi. Brigadier Shri Ajeet Srivastava (Retd) was present on this occasion.

Prof. (Ms.) Karuna Jain, Director, NITIE appreciated the Officers and the staff of the



Institute for using Hindi in their work and congratulated the winners of the competitions of Hindi fortnight. Shri Basavaraj Swamy, Registrar, NITIE expressed his commitment to propagate the use of Official Language Hindi in the Institute and congratulated all the winners. Md. Aftab Alam, Hindi Officer conducted the programme successfully and Shri Rakesh Kumar Shaw, Jr. Hindi Translator proposed vote of thanks.



Shri Bhuvendra Tyagi, News Editor, Navbharat Times delivering his speech on the occasion of Valedictory Function of Hindi Fortnight. On Dias, Prof. (Ms.) Karuna Jain, Director, NITIE; Brigadier Shri Ajeet Srivastava (Retd); Shri Basavaraj Swamy, Registrar and Md. Aftab Alam, Hindi Officer, NITIE were present.

#### 8. HASYA KAVI SAMMELAN

NITIE has organised a Hasya Kavi Sammelan in the eve of 28<sup>th</sup> September, 2018. Renowned Hasya Kavi Padmashri Dr. Sunil Jogi;



Padmashri Dr. Sunil Jogi presenting his poems. On dias, Shri Suresh Mishra, Dr. Mukesh Gautam and Ms. Sumita Keshwa were present.

Shri Suresh Mishra, Dr. Mukesh Gautam and Ms. Sumita Keshwa presented their poems. Prof. (Ms.) Karuna Jain, Director, NITIE; Brigadier Shri Ajeet Srivastava (Retd); Shri Basavaraj Swamy, Registrar and Md. Aftab Alam, Hindi Officer, NITIE were present in Sammelan. Also, there were so many students, Staff and their families were present on this occasion.

#### 9. BASIC COMPUTER TRAINING:

A Five days Basic Computer Training was organised by Central Hindi Training Sub-Institute, Deptt. of Official Language, Ministry of Home Affairs, Govt. of India in NITIE from 6th to 10th August, 2018.

Total 20 Officers/Employees of NITIE, SAMEER and other Institutes participated in it. Shri Basavaraj Swamy, Registrar, NITIE inaugurated the Training Programme in the presence of Dr. Anant Shrimali, Asstt. Director, Deptt. of Official Language, Ministry of Home Affairs, Govt. of India. Mrs. Pratima Dabholkar, Programmar, NITIE and other eminent personalities working for the progress of Hindi and Information Technology delivered lectures on various subjects.

Mrs. Sangita Jadhav, Shri Ramotar Kumawat, Shri A.K. Vishwakarma, Shri Mahesh Kumar



Shri Basavaraj Swamy, Registrar, NITIE addressing the participants of Basic Computer Training. On the dais Dr. Anant Shrimali, Asstt. Director, Deptt. of Official Language, Ministry of Home Affairs, Govt. of India and Md. Aftab Alam, Hindi Officer, NITIE were present.





Prof. Nikhil Mehta, Assoc. Professor, NITIE; Dr. Anant Shrimali, Asstt. Director, Deptt. of Official Language, Ministry of Home Affairs, Govt. of India and Md. Aftab Alam, Hindi Officer, NITIE along with the participants of Basic Computer Training.

M, Shri L.K. Thopate, Shri J.B. Desai, Shri V.A. Patankar, Mrs. Sonal Shinde, Shri Ram Singh Rawat, Shri P.B. Parab, Shri Sanjay Rane, Shri S.M. Sonkamble, Shri Y.H.Ayir and Shri D.V. Chavan were present in this Training.

Prof. Nikhil Mehta, Assoc. Professor, NITIE addressed the participants and distributed the Certificates on 10th August, 2018. Md. Aftab Alam, Hindi Officer conducted the programme and gave vote of thanks.

#### 10. O.L. AWARD / HONOUR

### (i) FIRST RAJBHASHA KEERTI AWARD TO NITIE

NITIE awarded with "1st prize of Rajbhasha Keerti Award" in 'B' region by Official Language Department, Govt. of India for the year 2017-18 for the excellent implementation of Official Language Hindi in the Institute. Prof. Shirish Sangle, Dean (SRIC) received the prestigious award from Hon'ble Vice-President of India, Shri M Venkaiah Naidu at a glorious function at Vigyan Bhavan, New Delhi on 14th September 2018. Md. Aftab Alam, Hindi Officer, NITIE was also present on this occasion.

The Official Language Department, Ministry of Home Affairs, Govt. of India



Prof. Shirish Sangle, Dean (SRIC), NITIE, receiving the "Rajbhasha Keerti Award" by Shri M. Venkaiah Naidu, Hon'ble Vice-President of India. Shri Rajnath Singh, Minister for Home Affairs, Govt. of India, Shri Kiren Rijiju & Shri Hansraj Gangaram Ahir, Minister of State for Home Affairs and and Shri Shailesh, Secretary (O.L. Deptt.) were present on this occasion.

invites entries for Rajbhasha Awards in which Central Govt. Offices / Institutions / Undertakings etc. through out India send their Hindi Implementation Reports and out of which it is a matter of pride & pleasure that NITIE has been chosen for this prestigious award.

It's worth noticing that earlier NITIE had been honoured Four times with "Official Language Award" for the year 2005-06, 2007-08, 2013-14 and 2014-15 for the excellent implementation of Official Language Hindi in the Institute. Prof. (Ms.) Karuna Jain, Director of the Institute expressed this as a great achievement for NITIE & reiterated the commitment to speed up Hindi Implementation in the Institute in coming years.

### (ii) TOLIC PRIZE TO MRS. JAYASHREE NAIR. SUPERINTENDENT

Received consolation prize for Noting & Drafting competition organised by Town Official Language Implementation Committee (TOLIC), North Mumbai (Offices) at Office of the Development





Mrs. Jayashree Nair, Supdt receiving the prize of TOLIC.

Commissioner, Seepz - SEZ, Andheri (E), Mumbai on 29.10.2018. Honoured by Shri Baldev Singh, Development Commissioner, Office of the Development Commissioner, Seepz - SEZ, Andheri (E), Mumbai with Shawl, Bouquet and Memento in 2<sup>nd</sup> Half Yearly meeting organised by the committee.

### 11. ATTENDED - CONFERENCE/MEETING/ WORKSHOPS, ETC:

#### PROF. D.K. SRIVASTAVA, PROFESSOR

Participated in half yearly meeting organised by Town Official Language Implementation Committee (TOLIC), North Mumbai (Offices) at Office of the Development Commissioner, Seepz - SEZ, Andheri (E), Mumbai on 28<sup>th</sup> June 2018.

#### PROF. SHIRISH SANGLE, DEAN (SRIC)

Participated in 2<sup>nd</sup> half yearly meeting organised by Town Official Language Implementation Committee (TOLIC), North Mumbai (Offices) at Office of the Development Commissioner, Seepz - SEZ, Andheri (E), Mumbai on 27<sup>th</sup> November 2018.

#### PROF. NIKHIL MEHTA, ASSOC. PROFESSOR

Participated in Two days "All India Official Language Seminar" organised by Ministry of



Prof. Nikhil Mehta, Assoc. Professor, NITIE delivering his lecture in Seminar.

HRD, Department of Official Language, Govt. of India, at Port Blair, Andaman and Nicobar on 31<sup>st</sup> January to 1<sup>st</sup> February, 2019. Also, Chaired a session of "Information Technology & Hindi" and delivered his lecture.

#### SHRI BASAVARAJ SWAMY, REGISTRAR

Participated in  $11^{th}$  Vishwa Hindi Sammelan organised by Official Language Department, Ministry of External Affairs, Govt. of India in Mauritius from  $18^{th}$  to  $20^{th}$  August, 2018.

#### MD. AFTAB ALAM, HINDI OFFICER

(i) Participated in half yearly meeting organised by Town Official Language Implementation Committee (TOLIC), North Mumbai (Offices) at Office of the Development Commissioner, Seepz - SEZ, Andheri (E), Mumbai on 28<sup>th</sup> June 2018.



- (ii) Participated in "Rajbhasha Keerti Award" Ceremony organised by Official Language Department, Ministry of Home Affairs, Govt. of India at Vigyan Bhavan, New Delhi on 14<sup>th</sup> September, 2018.
- (iii) Participated in 2<sup>nd</sup> half yearly meeting organised by Town Official Language Implementation Committee (TOLIC), North Mumbai (Offices) at Office of the Development Commissioner, Seepz SEZ, Andheri (E), Mumbai on 27<sup>th</sup> November, 2018.
- (iv) Participated in Two days "All India Official Language Seminar" organised by Ministry of HRD, Department of Official Language, Govt. of India, at Port Blair,

- Andaman and Nicobar on  $31^{st}$  January to  $1^{st}$  February, 2019.
- (v) Participated in One day Liaison Officer (Official Language) meeting organised by Hindi Teaching Scheme and Central Hindi Teaching Sub-Institute, Ministry of Home Affairs, Deptt of Official Language, Govt. of India at CBD Belapur, Navi Mumbai on 21st February, 2019.

#### SHRI ANAND WARE, LDC

Participated in "Computer Hindi Typing Competition" organised by Town Official Language Implementation Committee (TOLIC), North Mumbai (Offices) at Office of the Development Commissioner, Seepz - SEZ, Andheri (E), Mumbai on 12<sup>th</sup> March, 2019.



### NITIE CULTURAL AND WELFARE ACTIVITIES

#### **CELEBRATIONS:**

Shivaji Maharaj Jayanti Celebration: The 388<sup>th</sup> Chhatrapati Shivaji Maharaj Jayanti was celebrated in NITIE with great traditional fervour. Shri Vishnu Patankar, Secretary, Celebration Committee introduced the Chief Guest to the Audience. The Chief Guest Prof. Prashant Dandekar envisaged the strategies and tactics of Shri Chhatrapati Shivaji Maharaj which are inspiring globally. Prof. Shirish Sangle, Director-Incharge, NITIE, presided over the



function and inspired the audience by enlightening the divine empowerment of Chhatrapati Shivaji Maharaj.

Shri Basavaraj Swamy, Registrar, NITIE, in his speech emphasized on the greatness of Chhatrapati Shivaji Maharaj and the importance of why we should celebrate this Jayanti even after more than 388 Years.

The programme was well supported by NITIE Faculty, Officers, Staff and students. Shri Shashikant V Parab gave the vote of thanks to everyone.

**Dr. B. R. Ambedkar's 127**<sup>th</sup> **Birth Anniversary Celebration:** Prof. (Ms) Karuna Jain, Director, Prof. Gururaj Gadre, Shri Basavaraj Swamy, Registrar, NITIE and Others garlanding the statue

of Dr. B. R. Ambedkar NITIE celebrated 127<sup>th</sup> Birth Anniversary of Dr. B. R. Ambedkar on 18<sup>th</sup> April 2018 in grand manner. Prof. (Ms) Karuna Jain, Director presided over the function and renowned personality Prof. Gururaj Gadre, was Chief Guest. Shri Mahavir Darure, Chairman, Celebration Committee welcomed everyone to the function. Prof. Gururaj Gadre delivered the lecture on "Social Justice and Sustainable Development of Nation". Shri Shashikant Parab gave vote of thanks and the program ended with National Anthem.



Institute also celebrated the following activities as per Government of India norms for the year 2018-2019.

- 1. Yoga Day
- 2. Independence Day
- 3. Sadbhavna Day Communal Harmony Fortnight
- 4. Swachhata Abhiyan
- 5. Vigilance Awareness Week
- 6. Rashtriya Ekta Day
- 7. Constitution day
- 8. Republic Day Celebration
- 9. Matrubhasha Day
- 10. Woman's Day

NITIE celebrated it's Institute Foundation Day on  $21^{st}$  September 2018 in grand manner.



### OTHER EVENTS

### 1. National Safety Week on 6th March, 2019

Environmental Engineering & Management (EEM) area organised "ISEM Conclave" on the eve of National Safety Week on 6th March, 2019. The conclave was focused on Environment Health and Safety (EHS) by inculcating a "people-planet-profit" approach towards managing operations and providing business solutions. Practice leaders and experts in the area of Industrial Safety were invited to deliver talks in the conclave fallowed by panel discussion. The panel members were Mr. Viren Shukla, VP, Vodafone; Mr. Ved

Prakash Tiwari, Reliance Infrastructure Ltd; Mr. Sunil Bailwar, VP, Hindalco Industry Ltd. The event was chaired by well-known speakers from corporate, industry and was attended by delegates, professors and students.

### 2. World Environment Day, 5th June 2018

Environmental Engineering & Management (EEM) area has organised a cleaning mission "OUR CAMPUS-A PLASTIC FREE ENVIRONMENT" on the occasion of "World Environment Day, 5th June 2018". This year the theme of World Environment Day was "Beat the Plastic Pollution". The area faculty





members, professors, staff and students collected the plastics from NITIE campus and handed over to authorised recyclers.









# ANNUAL ACCOUNTS



Annual Report 2018-19



### **ANNUAL ACCOUNTS**

During the year 2018-19, the MHRD sanctioned a total sum of ₹ 3350.00 lakhs as Grant-in-Aid (out of which Rs 3205.00 lakhs for Recurring (OH 35 and OH 36) and ₹ 75.00 lakhs for Capital (OH 31)). There was also a carry over of unspent balance of ₹ (132.25) lakhs from the Financial Year 2017-18 from plan fund. During the year 2018-19, the Institute earned a revenue of ₹3614.86 lakhs.

Out of the above revenue, a sum of ₹ 6889.86 lakhs was spent under Recurring expenditure which comprises of ₹ 3801.80 lakhs for salaries and pension and ₹ 3088.05 lakhs for expenditure which includes an amount of ₹ 952.07 lakhs as transferred to endowment account. The Institute also spent a sum of ₹ 269.93 lakhs under Non-Recurring Heads. Hence the total expenditure works out of ₹7159.79 lakhs. An amount of ₹ NIL under Non Plan Grant (OH36) and an amount of ₹ -327.18 is the excess spent on Capital Account.

#### BC/PA/AA

Under BC-PA-AA Account, a sum of 510.92 lakhs was available as carry over from 2017-18. During the year 2018-19, the Institute earned a sum of Rs 26.10 lakhs. Hence, the total income available during the year 2017-18 was ₹539.03 lakhs. Out of this, a sum of 45.75 lakhs was spent under Recurring expenditure. The unspent balance of ₹491.84 lakhs is carried over to the year 2019-20.

### New Plan Scheme Projects (IIPC)

Under the new plan scheme projects, there was a carry over of ₹17.38 lakhs from the year 2017-2018. A Grant – in –Aid of ₹ NIL lakhs has been received during the year 2018-2019. There was an income of ₹1.04 lakhs during the year 2018-19. In all a sum of ₹18.42 lakhs was available under New Plan Scheme Projects for the year 2018-19. Out of the above, a sum of ₹0.01 lakhs was spent under Recurring heads. Hence, the unspent balance of ₹18.41 lakhs is carried over to the year 2019-20.

#### **Sponsored Projects (TIFAC)**

Under the sponsored projects, a sum of ₹10.43 lakhs was available as carry over from 2017-18 and ₹0.45 lakhs as income including the Grant during the year 2018-19 totaling to ₹10.88 lakhs. Out of the above, a sum of ₹0.43 lakhs was spent under recurring expenditure. The balance of ₹10.45 lakhs is carried over to the year 2019-20

Abridged Annual Accounts figures are given in the following pages:



# ANNUAL ACCOUNTS FUND FLOW FOR THE YEAR 2018-19

₹ In Lakhs

					₹ In Lakhs
			Grant /		
	_	Opening	Income	Expenditure	Unspent
Name Of The S	cheme/Programme	Balance	Received	During The	Balance In
			During The	Year	Lakhs
			Year		
	1. NON PLAN		l OH-36)		
Opening Balance		0.00			
Grant -in - Aid			3275.00		
Institute Income			3614.86		
Expenditure Incurred				6889.86	
Unspent Balance C/f					0.00
	TOTAL NON PLAN		6889.86	6889.86	0.00
	2. PLAN (C	OH 35- CAPI	TAL)		
Opening Balance		-132.25			
Grant -in - Aid			75.00		
Institute Income			0.00		
Expenditure Incurred				269.93	
Unspent Balance C/f					-327.18
	TOTAL PLAN	-132.25	75.00	269.93	-327.18
_	3.	BCPAAA			
Opening Balance		512.93			
Grant -in - Aid			0.00		
Institute Income			24.66		
Expenditure Incurred				45.75	
Unspent Balance C/f					491.84
	TOTAL BCPAAA	512.93	24.66	45.75	491.84
	A NEW DIA	AN SCHEME	(IIDC)		
Opening Polones	4. NEW PLA	17.38	(IIPC)		
Opening Balance		17.36	0.00		
Grant in Aid			0.00		
Institute Income			1.04	0.01	
Expenditure Incurred				0.01	10.11
Unspent Balance C/f		1= 00	4.0.	0.01	18.41
TO	TAL NEW PLAN SCHEME	17.38	1.04	0.01	18.41
	5. SPONSOREI	D PROJECT	S (TIFAC)		
Opening Balance	o. or ondown	10.43	~ (11110)		
Grant -in - Aid		10.10	0.00		
Institute Income			0.45		
			0.40	0.42	
Expenditure Incurred				0.43	10.45
Unspent Balance C/f	TOTAL DIDAG COLUBER	10.40	0.45	0.40	10.45
	TOTAL TIFAC SCHEME	10.43	0.45	0.43	10.43



### GRANT-IN-AID RECEIVED AND EXPENDITURE INCURRED

(As per revised	۱ -	New	format	of	accounts)
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₹ in Lakhs						₹ in La	khs
		1. MAIN	ACCOUNT -	PLA	N and NON PLAN		
	EXPENDITURE	2018-19	2017-18		INCOME	2018-19	2017-18
a)	Establishment Charges	3801.81	3258.17	a)	Opening Balance	-132.26	38.49
	- Salaries to Academic/ Non-			a)	Grant- in Aid	3350.00	3825.00
	Academic Staff Institutes Contribution to CPF / Retirement Benefits				(Received for recurring and Non-Recurring Expenses during the year		
b)	Other Expenses	3088.05	3610.13	<b>b</b> )	Academic Receipts	3148.16	2711.56
	Special Repairs, Scholarships, Maintenance & Repairs TA, Vehicles Entertainment, P&T				(all Academic Programmes, MDP, UBP, Consultancy Services		
c)	Non Recurring Expenditure	269.93	302.74	c)	Other Income	466.70	463.73
d)	Excess of income over expenditure		-132.26	d)	Excesss of expenditure over income	327.19	
TC	TAL MAIN ACCOUNT	7159.79	7038.78		TOTAL MAIN ACCOUNT	7159.79	7038.78
			2. BC	PAA	A		
	EXPENDITURE	2018-19	2017-18		INCOME	2018-19	2017-18
a)	Exp on Catering, M&R to furniture. Misc Expe & Contn to BCPAAA	47.69	80.92	a)	Opening Balance from the Previous Year	510.92	565.74
b)	Excess of income over expenditure carried over to Balance Sheet	487.89	510.92	b)	Income during the year	24.66	26.10
	TOTAL BCPAAA Account	535.58	591.84		TOTAL BCPAAA Account	535.58	591.84
		3.	NEW PLAN	SCH	EME - IIPC		
	EXPENDITURE	2018-19	2017-18		INCOME	2018-19	2017-18
a)	Expenses on Salaries, TA/DA	0.01	0.04	a)	Opening Balance from the Previous Year	17.38	16.21
b)	Excess of income over expenditure carried over to Balance Sheet	18.41	17.38	b)	Income during the year	1.04	1.21
	TOTAL IIPC Account	18.42	17.42		TOTAL IIPC Account	18.42	17.42
			0.110.05.55				
				ROJ	ECTS - TIFAC	001010	001=1-
	EXPENDITURE	2018-19	2017-18		INCOME	2018-19	2017-18
a)	Expenses on Salaries, TA/DA	0.43	0.01	a)	Opening Balance from the Previous Year	10.43	10.01
b)	Excess of income over expenditure carried over to Balance Sheet	10.45	10.43	b)	Income during the year	0.45	0.43
	TOTAL TIFAC Account	10.88	10.44		TOTAL TIFAC Account	10.88	10.44



### **BALANCE SHEET**

### **BALANCE SHEET YEAR ENDING 2018-19**

(As per revised - New format of Accounts)

MAIN ACCOUNT										
Liabilities	2018-19	2017-18	Assets	2018-19	2017-18					
Corpus/Capital Fund	5143.32	7565.86	Fixed Assets	12241.70	12118.17					
Designated/Earmarked/Endowment Funds	9103.82	9239.61	Investments	3363.09	5036.05					
Current Liabilities/Provisions	2536.80	2568.66	Current Assets	258.18	364.99					
			Loan, Advances and Deposits	920.98	1854.93					
TOTAL MAIN ACCOUNT	16783.94	19374.13	TOTAL MAIN ACCOUNT	16783.94	19374.13					

BCPAAA ACCOUNT										
Liabilities 2018-19 2017-18 Assets 2018-19 20										
Corpus/Capital Fund	488.12	510.91	Fixed Assets	49.51	51.46					
Designated/Earmarked/Endowment Funds	9.91	9.91	Investments	394.42	427.12					
Current Liabilities/Provisions	25.93	29.55	Current Assets	73.05	64.56					
			Loan, Advances and Deposits	6.96	7.23					
TOTAL BCPAAA ACCOUNT	523.95	550.37	TOTAL BCPAAA ACCOUNT	523.95	550.37					

NEW PLAN SCHEME (IIPC PROJECT)									
Liabilities 2018-19 2017-18 Assets 2018-19 2017-1									
Corpus/Capital Fund	0.18	0.19	Fixed Assets	0.18	0.19				
Designated/Earmarked/Endowment Funds	18.42	17.39	Investments	16.24	15.23				
Current Liabilities/Provisions	0.00	0.00	Current Assets	2.18	2.16				
		Loan, Advances and Deposits							
TOTAL IIPC ACCOUNT 18.60 17.58 TOTAL IIPC ACCOUNT 18.60 1									

TIFAC CORE PROJECT									
Liabilities 2018-19 2017-18 Assets 2018-19 2017-									
Corpus/Capital Fund	15.81	17.28	Fixed Assets	15.81	17.28				
Designated/Earmarked/Endowment Funds	10.87	10.43	Investments	8.02	7.58				
Current Liabilities/Provisions	0	0.00	Current Assets	0.28	0.29				
Loan, Advances and Deposits 2.57									
TOTAL TIFAC ACCOUNT	26.68	27.71	TOTAL TIFAC ACCOUNT	26.68	27.71				



### **INSTITUTE - EXTRACT IN FROM GFR - 19**

APPENDIX TO THE Annual statement of the Accounts of the Institute - Extracts in form GFR -19 regarding assets of permanent value and machinery and equipment having a life of not less than 5 years and consting Rs. 10,000/- and above (each item)

### FORM GFR - 19

1	Name of the Grantee Institution	:	NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING
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2 Brief Purpose of the grant : FOR INFRASTRUCTURAL CACILITIS

Whether any condition regarding the right: of ownership of Gvt. In the Property or other assets acquired out of the grant was on-corporate in the grant in aid sanction

YES OWENERSHIP VESTS WITH THE GOVT.

4 Purpose for which utilized at present : FOR ACQURING EQUIPMENT
5 Encumbered or not : N. A.
6 Reason if encumbered : N. A.

7 Reason and authority if any for disposal : OBSOLETE

	Reason and authority if any for e			1			
Sr. No	No. and date of sanction	Amt. of the San. Grant	Particulars of Assets	Value of Asset as on	Disposed	Amt. realized on disposal	Remarks
1.	CPSC/BPL/TEL/CC/17-18/01	14,05,658.12	Upgradation of Main System 32 channel	14,05,658.12			
2.	CPSC/SRIC/Equip. & Film 2017-18/06 dt. 19.2.2018	96,000.00	32 LED TV FHD with PC Input (Sharp-32 HDLED)	69,001.00			
3.	Plan/Equip. & Film/2017-17/4 dt. 17.8.2017	6,94,452.00	Organic Waste Conventer     Portable Garden Shredder	6,94,452.00			
4.	Plan/Equip. & Film/2017-17/4 dt. 17.8.2017	5,32,818.00	1) Double Fogger system 2) M.S. Double Rack for Curing System 3 Singly, Rack 4) Plastic Carte 5) Plastic Carte	5,32,818.00			
			Single Fogger System     125 LTRs Capacity Blue Colour     HMHDPE DRUM				
5.	Plan/Equip. & Film/2018-19/4 dt. 8.11.2018	81,648.00	Brush Cutter Machine	81,648.00			
6.	Equipment /Xerox /18-19 dt. 16.8.18	4,47,220.00	Photo Copier Machine Canon IR ADV6555i	4,47,220.00			
7.	Equipment & Films /Placement/18-19 dt. 12.11.18	3,89,000.00	Photo Copier Machine Canon IR ADV6555i	3,89,000.00			
8.	Plan Equipment & Films/ 18-19 dt. 6.3.18	37,500.00	Water Supply Pipe	37,500.00			
9.	Plan Equipment & Films/18-19/02 dt. 6.3.18	3,02,375.00	1) 1.5 tr Daikin Split Air Condition 3 star	3,02,375.00			
			2) 1.0 tr Daikin Split Air Condition 3 star				





Sr. No	No. and date of sanction	Amt. of the San. Grant	Particulars of Assets	Value of Asset as on	Disposed	Amt. realized on disposal	Remarks
10.	Plan Equipment & Films /18-19/03 dt. 26.1018	36,375.00	1.5 tr Daikin Split Air Condition 3 star	36,375.00			
11.	Plan Equipment & Films/18-19/06 dt. 12.11.18	1,04,232.00	Submersible Pumps 3 No	1,04,232.00			
12.	Plan Equipment & Films /18-19/07 dt. 3.12.1018	2,07,772.00	Submersible Pumps 2 No     Installation	2,07,,772			
13.	Plan Equipment & Films/18-19/01 dt. 18.6.2018	2,50,000.00	PT-99 Black Telephone Instrument Single Push Button	66,600.00			
14.	Equipment & Films/2018-19/02	51,920.00	Two sanitary Napkin Vending Machine & Innstallation	51,920.00			
15.	dt. 4.02.19	76,675.20	Micro Controlled Interferential Therapy Machine	26,880.00			
16.	CPSC/Dispensary/Med-Equipment /2018-19/01 dt.13.3.19	76,675.20	Shortwave Daithermy Unit 600/1000W	49,795.00			
	Computer Peripherals						
1.	CPSC/BCPAAAA/2017-18/01 dt. 29.5.17	30,990.00	Mobile Phone, OPPO F3 Plus 64 GB Black	30,990.00			
2.	01/ACD/2018-19/Computer Equipment	24,000.00	Hard Disk Digital	14,513.00			
3.	CC/LAPTOPS/2018-19 dt. 2.1.2019	50,65,500.00	Computer Laptop, Dell Latitude 5490 CTO	50,65,500.00			
4.	CC/Comp.Equip/S & J & Hindi Cell/2018-19/02	24,496.00	Printer All in One 84433100	24,497.00			
5.	CC/COMP.Equip/DO/2018-19/01 Dt. 25.5.18	16,520.00	1 TB HD 84717020	16,520.00			
6.	CC/MSV/18-19/1	8,64,918.00	Microsoft Campus Agreement Licenses Renewal of Microsoft Open Value Subscription Licenses- reg	8,64, 919			
7.	Desktop/GEM/18-19	59,29,800.00	Lenovo VS30-17 TWSOD200 Desktop Inter Core I7 8 <sup>th</sup> Gen, 8GB Ram 1tb Hardisk, Keyboard, Mouse, DVD RW 21.5", Tft Screen.	59,29,800.00			
			Page wise total	95,15,993.12			

# **ANNEXURES**



Annual Report 2018-19



# ANNEXURES

ANNEXURE III: PROFORMA FOR FURNISHING THE INFORMATION RELATING TO NO.OF CIVILIAN POSTS, THEIR DESIGNATION AND SCALES OF PAY, ETC.IN RESPECT OF CIVILIAN EMPLOYEES OF THE AUTONOMOUS BODIES AS ON 31-03-2019

Sr.		Scale of pay of the	Grade	Special Pay		Status of Post	Post		Group of Post	No.of	Number of
o Z	of the Post in Full	post in full	Рау	NFA Central Deput. Allow etc. attached to the post; if any	Gazetted /Non-Gaz	Regular Temporary	Temp- orary	Super- nume- rary	Group-A Group-C Group-D Group-D Unclassified	sanctioned Posts	Employees in Position
	ACADEMIC										
	DIRECTOR	Rs.2,25,000 (Fixed)	0	***0	* N.G.	1	0	0	A	1	1
2	PROFESSOR	PB-4: 37400-67000	10500	* *	* N.G.	20	0	0	A		19
3	ASSOCIATE PROFESSOR	PB-4: 37400-67000	9200	** 8	* N.G.	18	0	0	A	84	18
4	ASSISTANT PROFESSOR	PB-3: 30000-39100	8000	**	* N.G.	15	0	0	A		19
5	MANAGER, COMPUTER CENTRE	PB 3: 15600-39100	7600	** 0	* N.G.	1	0	0	A	1	1
9	LIBRARY & INFO. OFFICER	PB 3: 15600-39100	0099	** 0	* N.G.	1	0	0	A	1	1
7	SYSTEMS DESIGNER	PB 3: 15600-39100	0099	*	* N.G.	1	0	0	A	2	1
∞	SENIOR PROGRAMMER	PB 3: 15600-39100	0099	**	* N.G.	1	0	0	A	2	1
6	PROGRAMMER	PB 2: 9300-34800	4600	* *	* N.G.	3	0	0	В	4	2

\* Non-Gazetted

 $<sup>^{**}\,</sup>$  No.of Employees availing special pay as per small family norm.



ANNEXURE III: PROFORMA FOR FURNISHING THE INFORMATION RELATING TO NO.OF CIVILIAN POSTS, THEIR DESIGNATION AND SCALES OF PAY, ETC.IN RESPECT OF CIVILIAN EMPLOYEES OF THE AUTONOMOUS BODIES AS ON 31-03-2019

Sr.	Designation	Scale of pay of the	Grade	Special Pay		Status of Post	Post		Group of Post	No.of	Number of
No.	of the Post in Full	post in full	Pay	NPA Central Deput.Allow etc. attached to the post; if any	Gazetted /Non-Gaz	Regular	Temp- orary	Super- nume- rary	Group-A Group-B Group-C Group-D Unclassified	sanctioned Posts	Employees in Position
	NON-ACADEMIC										
1	REGISTRAR	PB 3: 15600-39100	0092	**	* N.G.	1	0	0	A	1	1
2	C.O.E.	PB 3: 15600-39100	0092	** 0	* N.G.	1	0	0	A	1	1
လ	DEPUTY REGISTRAR	PB 3: 15600-39100	0099	**	* N.G.	0	0	0	A	3	2
4	MEDICAL OFFICER	PB 3: 15600-39100	5400	** 0 *#	* N.G.	1	0	0	A	1	1
2	ASSISTANT REGISTRAR	PB 3: 15600-39100	5400	**	* N.G.	3	0	0	A	3	3
9	ACCOUNTS OFFICER	PB 2: 9300-34800	4600	** 0	* N.G.	1	0	0	В	1	1
7	HINDI OFFICER	PB 2: 9300-34800	4600	** 0	* N.G.	1	0	0	В	1	1
8	SECRETARY TO DIRECTOR	PB 2: 9300-34800	4600	** 0	* N.G.	0	0	0	В	1	0
6	SR. SUPERINTENDENT	PB 2: 9300-34800	4600	2 **	* N.G.	2	0	0	В	4	2
10	ASST.LIB.&INFO.OFFICER	PB 2: 9300-34800	4600	** 0	* N.G.	1	0	0	В	1	1
11	SUPERINTENDENT	PB 2: 9300-34800	4200	** 9	* N.G.	6	0	0	В	13	8
12	HINDI TRANSLATOR (SR.)	PB 2: 9300-34800	4600	**	* N.G.	0	0	0	В	1	0
13	SR.LIB.&INFO.ASSISTANT	PB 2: 9300-34800	4200	**	* N.G.	1	0	0	В	2	1
14	ASSISTANT	PB 2: 9300-34800	4200	3 **	* N.G.	2	0	0	В	12	3
15	NURSE	PB 2: 9300-34800	4200	** 0	* N.G.	1	0	0	В	1	1
16	SR. STENOGRAPHER	PB 2: 9300-34800	4200	4 **	* N.G.	3	0	0	В	11	3
17	LIB. & INFO. ASSISTANT	PB 2: 9300-34800	4200	** 0	* N.G.	1	0	0	В	2	1
18	JR. HINDI TRANSLATOR	PB 2: 9300-34800	4200	** 0	* N.G.	1	0	0	В	1	1
19	HOSTEL MANAGER	PB 1: 5200-20200	2800	**	* N.G.	0	0	0	C	1	0

Non-Gazetted

 $<sup>^{**}\,</sup>$  No.of Employees availing special pay as per small family norm.  $\#\,$  NPA



Sr.	Designation	Scale of pay of the	Grade	Special Pay		Status of Post	Post		Group of Post	No.of	Number of
No.	of the Post in Full	post in full	Pay	NPA Central Deput.Allow etc. attached to the post; if any	Gazetted /Non-Gaz	Regular	Temp- orary	Super- nume- rary	Group-A Group-B Group-C Group-D Unclassified	sanctioned Posts	Employees in Position
	NON-ACADEMIC										
20	CASHIER	PB 1: 5200-20200	2800	**	* N.G.	П	0	0	C	1	1
21	COMPOUNDER	PB 1: 5200-20200	2800	**	* N.G.	П	0	0	C	2	1
22	T.O.C.R.	PB 1: 5200-20200	2400	*	* N.G.	2	0	0	S	2	2
23	JR. STENOGRAPHER	PB 1: 5200-20200	2400	2 **	* N.G.	1	0	0	C	2	1
24	U.D.C.	PB 1: 5200-20200	2400	**	* N.G.	11	0	0	S	13	10
25	L. D. C.	PB 1: 5200-20200	1900	**	* N.G.	14	0	1	S	26	15
26	LIBRARY CLERK	PB 1: 5200-20200	1900	**	* N.G.	က	0	0	S	4	3
27	DESPATCH RIDER	PB 1: 5200-20200	1900	*	* N.G.	0	0	0	C	1	0
28	TELEPHONE OPERATOR	PB 1: 5200-20200	1900	**	* N.G.	4	0	0	C	9	4
29	MULTI TASKING STAFF	PB 1: 5200-20200	1800	**	* N.G.	2	0	0	D	0	2
30	MISTRY	PB 1: 5200-20200	1800	**	* N.G.	0	0	0	D	2	0
31	DAFTARY	PB 1: 5200-20200	1800	2 **	* N.G.	3	0	0	D	3	3
32	LIB. ATTENDANT	PB 1: 5200-20200	1800	2 **	* N.G.	3	0	0	D	4	2
33	BEARER	PB 1: 5200-20200	1800	2 **	* N.G.	1	0	2	D	2	3
34	HOSTEL ATTENDANT	PB 1: 5200-20200	1800	**	* N.G.	1	0	0	D	7	1
35	PEON	PB 1: 5200-20200	1800	** 9	* N.G.	7	0	1	D	20	8
36	WATCHMAN	PB 1: 5200-20200	1800	4 **	* N.G.	2	0	0	D	12	2
37	SWEEPER	PB 1: 5200-20200	1800	**	* N.G.	9	0	0	D	19	4
38	MALI	PB 1: 5200-20200	1800	** 0	* N.G.	0	0	0	D	2	0
39	ATTENDANT	PB 1: 5200-20200	1800	.* *	* N.G.	9	0	0	D	18	9
40	TRAINEE	1 S: 4440-7440	0	** 0	* N.G.	2	0	0	D	0	2
* * #	Non-Gazetted ' No.of Employees availing special pay as per small family norm. NPA	cial pay as per small fa	mily nor	m.							



ANNEXURE III: PROFORMA FOR FURNISHING THE INFORMATION RELATING TO NO. OF CIVILIAN POSTS, THEIR DESIGNATION AND SCALES OF PAY, ETC.IN RESPECT OF CIVILIAN EMPLOYEES OF THE AUTONOMOUS BODIES AS ON 31-03-2019

Sr.	Designation	Scale of pay of the	Grade	Special Pay		status of Post	Post		Group of	No.of	Number of
No.	of the Post in Full	post in full	Pay	NPA Central Deput. Allow etc.attached to the post; if any	Gazetted /Non-Gaz	Regular	Temp- orary	Super- nume- rary	Post Group-A Group-B Group-C Group-D Unclassified	sanctioned Posts	Employees in Position
	TECHNICAL										
1	EXECUTIVE ENGINEER	PB 3: 15600-39100	0099	***0	* N.G.	1	0	0	A	1	1
2	VIDEO CAMERAMAN	PB 2: 9300-34800	4600	**	* N.G.	1	0	0	В	1	1
က	DATA PROCESSING ASST. PB 2: 9300-34800 GR.B	PB 2: 9300-34800	4600	* *	* N.G.	0	0	0	В	2	0
4	TECHNICAL ASST.(SR)	PB 2: 9300-34800	4200	***0	* N.G.	1	0	0	В	2	1
2	JR. ENGINEER	PB 2: 9300-34800	4200	**	* N.G.	2	0	0	В	3	2
9	TECH. ASSISTANT	PB 1: 5200-20200	2800	** [	* N.G.	0	0	0	C	2	0
7	DATA ENTRY OPR.GR-C	PB 2: 9300-34800	4200	** 0	* N.G.	1	0	0	В	2	1
8	DATA ENTRY OPR.GR-B	PB 1: 5200-20200	2800	2 **	* N.G.	2	0	0	С	4	1
6	MECH. 'A'	PB 1: 5200-20200	2400	4 **	* N.G.	1	0	0	С	5	0
10	DRAUGHTSMAN	PB 1: 5200-20200	2400	** 0	* N.G.	0	0	0	С	1	0
11	DATA ENTRY OPR GR-A	PB 1: 5200-20200	2400	** 0	* N.G.	0	0	0	С	3	0
12	MECH. 'B'	PB 1: 5200-20200	2400	1 **	* N.G.	1	0	0	С	2	1
13	DRIVER	PB 1: 5200-20200	1900	4 **	* N.G.	4	0	0	С	6	3
14	PLUMBER	PB 1: 5200-20200	1900	1 **	* N.G.	2	0	0	С	2	1
15	MECH. 'C'	PB 1: 5200-20200	1900	1 **	* N.G.	2	0	0	С	8	ß
16	DUPLICATING OPERATOR	PB 1: 5200-20200	1900	1 **	* N.G.	2	0	0	С	2	1
17	PUMP ATTENDANT	PB 1: 5200-20200	1800	1 **	* N.G.	0	0	0	D	3	0
18	BUS ATTENDANT	PB 1: 5200-20200	1800	** 0	* N.G.	1	0	0	D	2	1
19	MOTOR CLEANER	PB 1: 5200-20200	1800	**	* N.G.	1	0	0	D	2	1
20	WORKSHOP ATTENDANT	PB 1: 5200-20200	1800	1 **	* N.G.	1	0	0	D	1	1

<sup>\*</sup> Non-Gazetted

<sup>\*\*</sup> No.of Employees availing special pay as per small family norm.



# ANNEXURE IV: SUMMARY OF NO.OF SANCTIONED POSTS AND NO.IN POSITION - GROUPWISE

GROUP OF POST	SANCTIONED POST	EMPLOYEES IN POSITION (R+T+S)
	ACADEMIC	
A	91	61
В	4	2
С	0	0
D	0	0
SUB-TOTAL	95	63
	NON-ACADEMIC	
A	9	8
В	51	23
С	58	37
D	97	36
SUB-TOTAL	215	104
	TECHNICAL	
A	1	1
В	10	5
С	38	12
D	8	3
SUB-TOTAL	57	21
TOTAL	367	188

R - Regular

T - Temporary

S - Supernumerary



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