# Annual Report 2019-2020

### NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING





**NITIE for Nurturing Industry Towards Excellence** 

# Annual Report 2019-20

Annual Report
National Institute of Industrial Engineering
(NITIE), Mumbai
(1 April 2019 – 31 March 2020)



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"



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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 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 publishes quarterly a professional journal, UDYOG PRAGATI. This deals with new developments in Industrial Engineering, Industrial Management and allied fields.

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. Manoj Kumar Tiwari** as the Director.



## **INSTITUTE STRUCTURE**



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### NITIE BOARD OF GOVERNORS/SOCIETY

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

Board Meeting No.	Date	Society Meeting No.	Date
153	23.08.2019	_	_
154	13.09.2019	_	_
155	16.01.2020	76	16.01.2020

#### BOARD OF GOVERNORS (w.e.f. 27th March, 2017 to 26th 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. Amita Prasad, IAS (Upto 01.8.2019) Director General National Productivity Council Utpadakta Bhavan, 5-6, Institutional Area, Lodhi Road, NEW DELHI 110 003.
		Shri Arun Kumar Jha, IES (w.e.f. 02.8.2019) 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. Prem Vrat, (Former Director, llT Roorkee) Pro-Chancellor, Professor of Eminence & Chief Mentor The NorthCap University, HUDA Sector 23-A, Gurugram-122017	
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.	
		2. 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.	
		3. Shri Anand Sankeshwar Managing Director & Whole Time Director M/s VRL Logistics Ltd. Giriraj Annexe Hubli, Karnataka-580 029	
		4. 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)	1. Shri Pramod Chaudhari Founder and Executive Chairman, Praj Industries Limited, "Praj Tower" 274 & 275/2 Bhumkar Chowk - Hinjewadi Road Hinjewadi PUNE - 411057.
		2. Shri B Prasada Rao Former CMD, BHEL Flat No. X – 8 B, Meghadutam Apartments, Sector – 50, NOIDA – 201 301.
IX	One Representative of Govt. of Maharashtra Co-opted by the Board	Shri Saurabh Vijay 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 (Upto 29.08.2019) Director NITIE Prof. D.K. Srivastava (From 30.08.2019 to 04.11.2019) Director Incharge NITIE Prof. Manoj Kumar Tiwari (From 05.11.2019) Director NITIE
XI	Two Members of NITIE Teaching Faculty to be co-opted by the Chairman	Prof. Seema Unnikrishnan     NITIE  2. Prof. Vijaya Gupta
XII	Ex-Officio-Secretary	NITIE Shri Basavaraj Swamy Registrar NITIE



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

#### Deans:

1. Prof. Padmanav Acharya – Dean (Academics)

2. Prof. (Ms.) Hema A Date – Dean (Student Affairs)

3. Prof. V B Khanapuri – Dean, Sponsored Research & Industrial Consultancy (SRIC)

Prof. In-Charge:

1. Prof. Rauf Igbal – PIC (Executive Education)

2. Prof. A.S.Binilkumar – PIC (Research)

3. Prof. (Ms,) K S Ranjani – PIC (Media Relations)

4. Prof. (Ms.) Anju Singh – PIC (Security & Transport)

#### **Administrative Officers:**

#### Registrar

Shri Basavaraj Swamy

**Controller of Examination** (on deputation w.e.f. 15.12.2017 to 19.12.2019)

Dr. Utpal Kumar Debnath

#### **Medical Officer**

Dr. Smruti R. Patel

#### Manager, Computer Centre

Shri A N Naidu

#### **Deputy Registrar**

- 1. Shri Liju David Mathew
- 2. Dr. Ashish Singh Dixit

#### **Assistant Registrar**

- 1. Mrs. Sangita Jadhav
- 2. Mrs. Nisha Singh (Retd. Lt. Cdr.)
- 3. Mr. T M Hariram

#### System Designer

Shri SM. Venkataramaiah Ramagiri

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

Mrs. Bhagyashree E. Kordey

#### **Executive Engineer**

Shri R.M. Gaikwad

#### **Senior Programmer**

Shri K. Yeshwantha Rao

## **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.

#### Currently,

- 14 Literature Review cum Pre-Registration
- 36 Students presented Credit Seminar
- 12 Students presented Pre-Synopsis Seminar
- 08 Students presented Progress Seminar
- 15 Students defended Viva-Voce Examination successfully

Admission notification in respect of Fellow (Doctoral) Programme - 2020 was released in the leading Newspapers/ Journals and Magazines on 8<sup>th</sup> December, 2019. Admission related activities are in progress.

#### 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 47<sup>th</sup> batch PGDIE programme (2017-19) completed their programme and have been placed in various organizations.

The students of 48th batch PGDIE programme (2018-20) completed their 7th quarter, and busy with their final project and placed in various organizations.

The students of 49th batch PGDIE programme (2019-21) have completed 3rd Quarter and are busy with their Summer Project.

Admission notification for 50th Batch of PGDIE, 7th Batch of PGDMM & PGDPM (2020-22) was released in leading Newspapers/ Journals, Magazines and on NITIE website on 2nd February 2020. 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 4th batch PGDMM programme (2017-19) completed their programme and have been placed in various organizations.

The students of 5th batch PGDMM programme (2018-20) have completed their 7th quarter,



and busy with their final project and placed in various organizations

The students of 6th batch PGDMM programme (2019-21) have completed 3rd Quarter and are busy with their Summer Project.

#### 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 4th batch PGDPM programme (2017-19) have completed their programme and have been placed in various organizations.

The students of 5th batch PGDPM programme (2018-20) have completed their 7th quarter, and busy with their final project and were placed in various organizations

The students of 6th batch PGDPM programme (2019-21) have completed 3rd Quarter and are busy with their Summer Project.

#### iii) MBA Equivalent Programme:

## a) 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 24th Batch PGDIM programme (2017-19) completed their programme and were placed in various organizations.

The students of 25th Batch PGDIM programme (2018-20) completed their 7th Module and placed in various organizations

The students of 26th Batch PGDIM (2019-21) have completed 3rd Module and are busy with their Summer Project

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

NITIE has launched a Post-Graduate Diploma Industrial Safety and Environmental Management which is of two years duration and is approved by All India Council for Technical Education. The objective of the Programme is to provide knowledge to quality of industrial improve environmental practices and 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 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 17th Batch PGDISEM (2017-19) have completed their programme and were placed in various organizations.

The students of 18th Batch PGDISEM (2018-20) have completed their 7th Module and were placed in various organizations

The students of 19th Batch PGDISEM (2019-21) have completed their 3rd Module.

Admission notification in respect of PGDIM 27th Batch & PGDISEM 20th Batch were released in leading Newspapers/Journals, Magazines and on NITIE website on 20th October 2019. A total No. of 3572 applications were received and 2231 candidates were short listed for GD & PI based on the CAT Score and overall academic performance. Online admission process was held from 27.03.2020 to 31.03.2020. Total 2010 candidates have attended the online admission process

iv) Post Graduate Programme for Executives in Visionary Leadership for Manufacturing (PGPEX-VLFM) NITIE launched one-year full-time post graduate programme for Executives 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 themselves through a challenging, peer driven and experiential learning experience were encouraged to apply in either of the two categories - individual or sponsored.

The number of students admitted in the various programmes during (2019-21) are presented below:

Programme	Intake	Students Admitted	Students Left
FELLOW	40	24	01
PGDIE	140	143	10
PGDIM	308	272	04
PGDISEM	42	20	01
PGDMM	44	43	04
PGDPM	44	41	01
VLFM	30	26	-



## **ACADEMIC ACTIVITIES**

b.

Areas		Coordinators
i.	Industrial Engineering and Manufacturing Systems	Prof. L Ganapathy
ii.	Operations and Supply Chain Management	Prof.(Ms.) Sushmita N. Aghalaya
iii.	Engineering Technology and Project Management	Prof. V B Khanapuri
iv.	Decision Science and Information Systems	Prof. Rakesh Verma
V.	Environmental Engineering & Management	Prof. Shankar Murthy
vi.	Economics and Strategy	Prof. (Ms.) Vijaya Gupta
vii.	Finance and Accounts	Prof. Ajay Panda
viii.	Marketing	Prof. M.K. Jha
ix.	Organizational Behavior and Human Resource Management	Prof. S K Nair





#### INDUSTRIAL ENGINEERING AND MANUFACTURING SYSTEMS

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

**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. KVSS Narayana Rao	Professor	Industrial Engineering, Capital Markets, Financial Modelling
2.	Prof. L. Ganapathy	Professor	Quantitative Methods, Project Management
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	Anand Sashikumar	Prof. P. Acharya	Lean Performance Assessment in Bias Tyre Manufacturing: A Case based study in India
9	Ramakrishna Barsakade	Prof. L. Ganapathy Prof. P.Acharya	Modelling and Analysis of Lean implementation in Select Healthcare Systems in India
10	Prakash Vaidya	Prof. P. Acharya Prof. K.Maduletty	Reverse Logistics
11	Harshad Chandrakant Sonar	Prof. Milind Akarte Prof. Vivek Khanzode	Evaluating the impact of additive manufacturing on firm competitiveness.
12	Debasis Haldar	Prof. Rauf Iqbal Prof. Vivek Khanzode	Development of Dynamic Anthropometry Database of Indian Population for Designing Industrial Work Systems
13	Ramesh Kumar	Prof. L Ganapathy Prof. Ravindra Gokhale	Production-distribution planning in supply chain
14	Bhawana Rathore	Prof. Ashok Kumar Pundir Prof. Rauf Iqbal	Ergonomics evaluation in glass artware industry
15	Shreyanshu Parhi	Prof. Milind Akarte Prof. Kanchan Joshi	Investigating the impact of Industry 4.0 on manufacturing performance



Sr	Name of Fellow Student	Supervisor/s	Topic of Research
16	Nikhil Suryakant Ghag	Prof. Karuna Jain Prof. V. B. Khanapuri	Work System Design for Complex Automated System
17	Virendra Kumar Verma	Prof. Milind Akarte Prof. Gaurav Kabra	Impact of Additive Manufacturing on Supply Chain performance
18	Pratik Maheshwari	Prof. Ashok Kumar Pundir Dr. Sachin Kamble	Inventory management of non instantaneous deteriorating items
19	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
20	Rajan Kumar Gangadhari	Prof. Vivek Khanzode Prof. Shankar Murthy	Risk Management of Oil and Gas supply chain network using big data
21	Janak Suthar	Prof. D. Jinil Persis Prof. Ruchita Gupta	Smart factory
22	Mihir Kulkarni	Prof. D Jinil Persis Prof. Mukundan R	Modelling of Smart Manufacturing Factories
23	Venkata Jagadeeswar Rao Tattikota	Prof. L Ganapathy Prof. V . Khanapuri	Application of Project management techniques in a defence R&D organisation
24	Chandrashekhar Vishnu Chaudhari	Prof. Vivek Khanzode Prof. Raut Iqubal	Application of TOC for supplier buyer relationship in consumer goods environment
25	Amit Jaywantrao somwanshi	Prof. Vivek khanzode Prof. Debabrata Das	Supply chain management
26	Bhide Amol	Prof. Milind Akarte	Remanufacturing for sustainability
27	Gandhare B S	Prof. Milind Akarte	Evaluation Of Maintenance Performance In Select Agro-Based Industries



#### **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 of 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. Rakesh Raut	Operations Management / Supply Chain Management	Collaborative Network Organization, Agriculture Supply Chain, Cold Supply Chain, 3PL
3.	Prof. Ravindra Gokhale	Operations Management / Supply Chain Management	Manufacturing Planning and Control, Supply Chain Modelling, Urban Transportation Systems, Logistics Management
4.	Prof. Sachin Kamble (on lien)	Operations Management / Supply Chain Management	Agriculture Supply Chain, Cold Supply Chain, Retail Supply Chain
5.	Prof. Sanjay Sharma	Operations Management / Supply Chain Management	Inventory Management
6.	Prof. Sushmita Narayana	Operations Management / Supply Chain Management	Healthcare Operations Management, Sustainable Supply Chain Management

#### 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 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



Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area/ keywords
1.	Praveen Dongre	Prof. Ravindra Gokhale	A Study of Supply Chain Performance Measures in Organizations	Sector	Supply Chain Performance, MSME
2.	Prasad Patil	Prof Ravindra Gokhale / Prof. Koteshwara Rao Naik	TQM -SCM	Industry	Quality SCM
3.	Rohit Sharma	Prof. Sachin Kamble	"Impact of Modern Technologies for Enhancing Sustainable Agricultural Supply Chain Performance" Thesis submitted	Industry	Course work completed
4.	Pankaj Kalwaghe	Prof. Rakesh Raut	Smart Cities	Industry	Course work completed
5.	Lavanya Meherishi	Prof. Sushmita Narayana / Prof K S Ranjani	Packaging in Supply Chains	Industry	Course work completed
6.	Sarthak Dhingra	Prof Rakesh Raut / Prof Koteshwara Rao Naik	Course work completed	Industry	Course work completed
7.	Aditi Sushant Saha	Prof Rakesh Raut	Course work ongoing	-	Course work ongoing
8.	Ajayagopal K V	Prof Ravindra Gokhale / Prof Rakesh Verma	Course work ongoing	-	Course work ongoing
9.	Ashish Omar	Prof Priyanka Verma	Course work ongoing	-	Course work ongoing
10.	Dheeraj Kumar	Prof Sushmita Narayana	Course work ongoing	-	Course work ongoing
11.	Harish Kumar Arya	Prof Sushmita Narayana / Prof Debabrata Das	Course work ongoing (FPIP)	-	Course work ongoing
12.	Rahul Chavhan	Prof Debabrata Das	Course work ongoing	-	Course work ongoing
13.	Satvik	Prof Koteshwara Rao Naik	Course work ongoing	-	Course work ongoing



#### 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	06	Area Core
		Other group members
Fellows*	13	Current

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

#### Area Publications - Conferences and Journals

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

#### 3. Outreach (including building Institutional linkages)

#### Management Development Programme [MDP]

Current Focus of these courses - MDPs proposed in Academic Year 2020-21

- Supply Chain Analytics
- Achieving Excellence in Logistics Management
- AI/ML in Operations & Supply Chain Management
- Sustainable Supply Chain Management in Circular Economy
- Statistical Process Control
- Analytics in Service Industry
- Artificial Intelligence for Managerial Decision Making



#### **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 to align business strategy with technology management. ETPM area is the amalgamation of two vital areas Project Management and Engineering Technology with the following goals:

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

The primary objective of ETPM area is 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. Karuna Jain	Project Management / Technology Management/SCM	Strategic Technology & Innovation Management, Intellectual Property Management, R&D Management, Project Management, SCM
3.	Prof. Koteshwararao Naik B.	Technology Management/IPR	Creativity, IP Management, Technology Management and Entrepreneurship
4.	Prof. Ruchita Gupta	Technology Management/ Project Risk Management	Diffusion and Adoption, Technology Transfer and Commercialisation, Technology Forecasting, Technology Entrepreneurship
5.	Prof. Vivekanand Khanapuri	Project Management / Maintenance Management	Project stakeholder management, Project monitoring and control, Project selection. Maintenance Management, BPR & IT



#### 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 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, 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, Perspectives on Engineering Technology and Project Management $\rightarrow$  Any other courses offered by specific Faculty Guides

#### 2. Research

Profile	Details	Remarks
Faculty	06	Area Core
		Other group members
Fellows*	01 / 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	Corporate Finance regulated firms valuation	Industry	Green SCM
2	Rose Anthony	Prof. Karuna Jain / Prof. V. Khanapuri	Improving Project Management Practices in Agriculture	Sector	Sustainability, Paper 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	,   0 0		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	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	Undergoing Coursework	Industry	Undergoing Coursework
16.	Pratima Bhagat	Prof. Ruchita Gupta/ Prof. Karuna Jain	Undergoing Coursework	Industry	Undergoing Coursework



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

#### a) 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 conceptualize, design, analyze, develop, and deliver leading-edge information systems that support business processes and data driven 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.

#### b) 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, Manufacturing, MCDM, Fuzzy Logic and Its Application To Engineering and Business, Multi-Objective Optimization, Decision Making under Risk and Uncertainty, Machine Learning, SCM
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.



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

#### 1. 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.

#### 2. Research

Singh, S., Verma, R., and Koul, S. (2019) A New Approach to Decision Prioritization – Case for Healthcare Decision-Makers, Int' l Journal of Operations and Quantitative Management, 25 (4): 275-297. (SCOPUS, ELSEVIER).

R. Verma, S. Koul and G. Singh, "Intelligent Decision-Making: Using Control Tower at a Logistics Company," 2020 IEEE International Conference on Computing, Power and Communication Technologies (GUCON), Greater Noida, India, 2020, pp. 550-554, DOI: 10.1109/GUCON48875.2020.9231108.

Verma, Rakesh and Koul, Saroj and Prasad, Babli, Expert System – A Case of Indian Railway's Track Maintenance and Renewal Operations (28 March 2020). Proceedings of the International Conference on Innovative Computing & Communications (ICICC) 2020, Available at SSRN: http://dx.doi.org/10.2139/ssrn.3563091 (ELSEVIER).

Saroj Koul; CSN Venkata Datta; Rakesh Verma Car Rentals' Knowledge and Customer Choice, 2020 IEEE Int'I Conference on Emerging Trends in Information Technology and Engineering (ic-ETITE), Vellore, India, 2020, pp. 1-5, DOI: 10.1109/ic-TITE47903.2020.331



#### **ENVIRONMENTAL ENGINEERING & MANAGEMENT**

#### a) 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 field 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.

#### b) Faculty members and their specialisations:

S.No	Faculty		Focus Area
1.	Prof. Seema Unnikrishnan	0	Environmental law and Policy, Disaster Management, Climate Change and Business Environmentally Conscious Manufacturing and Life Cycle Analysis Safety and Environmental legislation Air quality Management
2.	Prof. Shankar Murthy		Environmental Engineering, Process Safety, Industrial Wastewater Management, Behaviour Based Safety (BBS)
3.	Prof. Shirish Sangle		Organization and Natural Environment, Sustainability, CSR
4.	Prof. Anju Singh		Business sustainability, Environmental management, Corporate Social Responsibility
5.	Prof. Hema Diwan		Industrial pollution control, EIA, Sustainability management
6.	Prof. Vidyadhar V. Gedam		Chemical Hazard and Safety, Sustainable Development, Mineral Waste Management, Water Quality Assessment



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

#### 1. Academic - Courses offered

Sustainable development for business. Sustainable manufacturing, Environment and Safety Legislation, Noise E-waste and management, Fire and Safety Managements, Disaster management, Energy management, EIA and 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

#### 2. Research

#### List of publications: Prof. Seema Unnikrishnan

Potdar, A., Unnikrishnan, S., and Singh, A. (2019) "A framework for climate change management in organisations: a case for India", World Review of Entrepreneurship, Management and Sustainable Development, Vol. 15, No. 3, pp. 303-334."

Shrivastava S, Unnikrishnan S., (2019) Review of Life Cycle Assessment and Environmental Impacts from The Oil & Gas Sector. Oil Gas Res 5: 164. doi:10.4172/2472-0518.1000164

Shrivastava S, Unnikrishnan S., (2020) Life cycle assessment of oil storage unit in India. Int. J. Oil, Gas and Coal Technology, Vol. X, No. Y, xxxx

#### **Conferences:**

 Shrivastava S, Unnikrishnan S., (2020). Life Cycle sustainability Assessment of crude oil refineries in India. International Confrence on

- "Energy and Environmental Technologies for Sustainable Development. (14-16 Feb 2020, MNIT, prayagraj).
- Shrivastava S, Unnikrishnan S., (2019). Review of Life Cycle Assessment and Environmental impacts from the Oil & Gas Sector. IAMOT conference. (7-11 April, 2019, NITIE Mumbai)

#### List of publications: Prof. Shirish Sangle

AK Vishwakarma, AK Nema, S Sangle (2019). What determines environmental pro-activeness in the Indian cement sector? An empirical study, Journal of Cleaner Production 234, 961-971

SS Panda, S Sangle, (2019). An exploratory study to investigate the relationship between social license to operate and sustainable development strategies Sustainable Development 27 (6), 1085-1095.

SS Panda and Shirish Sangle, (2020). Stakeholder engagement as dynamic capability, Business Strategy and Development, 3(2), 204-212

#### List of publications: Prof. Shankar Murthy

- Fuzzy multi-criteria decision analysis for environmentally conscious solid waste treatment and disposal technology selection; Manoj Govind Kharat, **Shankar Murthy**, Sheetal Jaisingh Kamble Rakesh D. Raut, Sachin S.Kamble, Mukesh Govind Kharat, Technology in Society, Volume 57, May 2019, Pages 20-29.
- Development of simplified WQIs for assessment of spatial and temporal variations of surface water quality in upper Damodar river basin, eastern India; Ravindra Kumar Verma, **Shankar Murthy**, Rajani Kant Tiwary, Sangeeta Verma, Received: 25 July 2017 / Accepted: 3 January 2019 / Published online: 22 January 2019, Applied Water Science (2019) 9:21 https://doi.org/10.1007/s13201-019-0893-0



#### List of publications: Prof. Vidyadhar Gedam

- Bhagat, S., Gedam, V.V. & Pathak, P. (2020). Adsorption/desorption, Kinetics and Equilibrium Studies for the Uptake of Cu (II) and Zn(II) onto Banana Peel. International Journal of Chemical Reactor Engineering, Volume 18: Issue 3. doi:10.1515/ ijcre-2019-0109 (SCIE, Scopus index, IF-1.15, Publisher-DE GRUYTER)
- Ajay H. Dwivedi, Vidyadhar V. Gedam, M. Suresh Kumar (2020), Sustainable hydrogen production from fruit and vegetable waste (FVW) using mixed anaerobic cultures via dark fermentation: kinetic aspects. International Journal of Energy and Environmental Engineering, DOI: https://doi.org/10.1007/s40095-020-00340-6 (ESCI, Scopus indexed, IF-1.87, Publisher-Springer Berlin Heidelberg)

#### WORKSHOPS/QIP ATTENDED

 QIP Programme attended "Sustainable Engineering: FEW Nexus," organized by IIT Bombay, December 9-13, 2019.

## EXTERNALLY FUNDED RESEARCH PROJECTS: Prof. Anju Singh

#### **Projects Initiated:**

The project SARASWATI 2.0 has also been initiated and aims to identify the best available as well as affordable decentralized wastewater treatment technologies with the goal of resource/energy recovery and reuse. The project is between Indian partners Indian Institute of Technology Kharagpur (Lead Coordinator) Indian Institute of Technology Roorkee; Indian Institute of Technology Madras: Indian Institute of Technology Bhubaneshwar: National Institute of Industrial Engineering (NITIE) Mumbai; Malaviya national Institite of technology, Jaipur (MNIT) Jaipur; TERI School of Advanced Studies (TERI SAS), New Delhi). European Project

- Partners: BOKU University (Lead Coordinator), TU Delft, CENTA Sevilla, UT, UA, SPI, CEMDS, SFCU, BGU. (PI: Prof. Anju Singh).
- 2. The Project from Sweden on "Research and development on environmental product regulations and policies" has been initiated. The main objectives of this Project is to Study sector specific product related environmental regulations in India and do a comparative analysis with other countries within the sector. It will cover a sectoral analysis using various research tools and preparedness analysis of the companies in the sector. The total amount for three years is 23 lakhs (PI: Prof. Anju Singh).

#### **Projects Completed:**

- 1. Bombay Chamber of Commerce and Industry sponsored research project on Enhancing Water Responsibility of Indian Companies was completed (PI: Prof. Anju Singh).
- 2. Bombay Chamber of Commerce and Industry sponsored research project on Calculation and benchmarking of carbon emissions using Carbon Disclosure Project (CDP) database (PI: Prof. Anju Singh).

#### Ph.D. awarded

- Mahesh Dalvi Sustainability and CSR A business model approach with key sustainability drivers
- 2. Sheetal Kamble Development of Life Cycle based Fuzzy-MCDM decision support framework for sustainable wastewater treatment and management

#### List of publications: Prof. Anju Singh

 Singh, A., Unnikrishnan, S., Naik, M., Sayanekar, S., 2019, CDM implementation towards reduction of fugitive greenhouse gas emissions, Environment, Development and Sustainability, April 2019, Volume 21, Issue 2, pp 569–586 | 2019



- 2. Sheetal 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) Water Sci Technol (2019) 79 (6): 1102-1112.
- 3. Sangeeta Verma, Pushpendra Kumar Singh, Surendra Kumar Mishra, Vijay Pratap Singh, and Anju Singh, 2019, Concept of Activation Soil Moisture Accounting in SCS-CN Methodology for Runoff estimation: A Runoff Elsevier Publication Accepted, Journal of Hydrology, June 2020, Journal of Hydrology, DOI: 10.1016/j.jhydrol.2020.125114
- Singh, A., Unnikrishnan, S., Naik, M., Sayanekar, S., 2019, Performance evaluation of a decentralized wastewater treatment system in India, Springer publication, Environmental Science and Pollution Research International, 22 May 2019, 26(21):21172-21188, DOI: 10.1007/s11356-019-05444-z PMID: 31119547
- 5. Kamble, S.J. Singh, A., Kazmi, A., Starkl, M, 2019, Environmental and economic performance evaluation of municipal wastewater treatment plants in India: a life cycle approach, Water. Sci. Technol, Water Sci. Technol (2019) 79 (6): 1102–1112, https://doi.org/10.2166/wst.2019.110
- Kamble, S. J., and Singh, A, 2019, Recent Advances in Life Cycle Assessment and Municipal Wastewater Treatment: A Review and Agenda for Future Research, Journal of Environmental Sciences
- 7. Dalvi, M., Singh, A., and Gosavi, M. 2019, Business sustainability-an automobile industry perspective, EPRA international journal of economic and business review -peer reviewed journal, Volume: 7 ISSUE: 2
- 8. Potdar, A., Unnikrishnan, S., and Singh, A, 2019, A framework for climate change

- management in organisations: a case for India, World Review of Entrepreneurship, Management and Sustainable Development
- 9. Dalvi, M., Singh, A., Rambabu, P., and Murthy, N.N., 2019, Business Sustainability A Study of Most Sustainable Corporations Environmental Management and Sustainable Development, Environmental Management and Sustainable Development, ISSN 2164-7682 2019, Vol. 8, No. 2
- Potdar A., Unnikrishnan S. and Singh A, 2019, A Framework for Climate Change Management in Organizations: A case for India, World Review of Entrepreneurship, Management and Sustainable Development, 2019 Vol.15 No.3, DOI: 10.1504/WREMSD.2019.099405.
- 11. Book Chapter: Geospatial Analysis to understand the linkage between Urban Sprawl and Temperature of a Region – Micro and Meso Scale Study of Mumbai City, Chapter 15, Sustainable Climate Action and Water Management, Springer (ISBN: 978-981-15-8237-0) Hemant Bherwani, Suman Kumar, Narendra Kumar, Anju Singh, Rakesh Kumar.

# INTERNATIONAL CONFERENCE PUBLICATIONS

- Hemant Bherwani, Anju Singh and Rakesh Kumar. "Methodologies for Assessment of Urban Micro-Climate", International Workshop on Climate Change and Extreme Events, IIT Mandi, April 2019, Page 81.
- 2. Best Paper Presentation Award: ACS Publications

Hemant Bherwani, Suman Kumar, Amol F. Niwalkar, Anju Singh and Rakesh Kumar. "Assessment of Increase in Urban Heat Island Intensity of Mumbai City Using Geospatial Methods", IVth International Conference on Sustainable Energy and Environmental Challenges, 29th November 2019.



3. Himani Sonwane, Hemant Bherwani, Anju Singh and Rakesh Kumar. "Effect of Parking Space and Public Transport Mismanagement on Urban Air Quality" 10th International Congress of Environmental Research, December 2019, Page 140.

# INTERNATIONAL TRAINING/WORKSHOPS

- Invited to and attended one-week Leadership in Circular Economy, sponsored by CEAA, Adelaide, Australia.
- 2. Invited to and attended one-week Thematic visit and workshop to Summit Brest, France, sponsored by French Embassy.

#### **AWARDS**

Prof. Indira Parikh 50 women education leaders in the world 2019







Sponsored and invited visit to Leadership in Circular Economy in Adelaide Australia in October 2019 by The Circular Economy Alliance Australia (CEAA)



#### List of Publications: Prof. Hema Diwan

Chitra Pandey, Diwan Hema (2020), Assessing fertilizer use behavior for environmental management and sustainability: a quantitative study in agriculturally intensive regions of Uttar Pradesh, India". Environment, Development and Sustainability (In Press).

#### **Conferences: Paper presentation**

Chitra Pandey, Hema Diwan. Modeling farmer fertilizer use for Soil & Water Quality Management: INRM Approach.XIV World Aqua Congress. 2020.

• Unit Based Program (UBP) on "Sustainability leadership development program" for Chief Engineers of IHCL, Mumbai in 2019, 2020.



(UBP) on "Sustainability leadership development program"

Prof. Hema Diwan conducted MDP on Sustainability Portfolio & Sustainability Analytics, 2020

# Accreditation of IOSH PGDISEM Programme:

In 2013, the PGDISEM Programme of NITIE became the first programme in the country to get Accreditation from the International Organization for Safety and health – IOSH, UK. This has been again renewed in 2017 for another 5 years. In 2019, The PGDISEM programme got the equivalence from the Board of Certified Safety Professionals USA. The program qualified as a TSP qualified Equivalent Programme, helping the graduates to become Certified Safety Professionals.

The EEM Area has conducted more than 100 training Programmes as Unit Based Programmes for the oil sector PSUS like IOC, BPCL, HPCL in Risk Analysis and Disaster Management.

The area members have also been conducting Sustainability leadership Programs for various organizations like India Hotels Ltd. and Accenture.



# **ECONOMICS AND STRATEGY**

#### a) Introduction to the Area

Economics and Strategy is one of the key academic areas which provides key inputs to industrial engineering. The area combines two broad disciplines, viz. Applied Economics and Strategic Management. Economics and Strategy is uniquely placed to provide the foundation to the courses to all PG Programmes like Operations and Supply Chain, Industrial Engineering, Marketing, etc. and sets the tone for a multidisciplinary approach education. It provides a basket of courses which combines the tools of decision making through economic, strategic on the one hand, and theoretical and analytical principles, integrates decision making with macroeconomic, regulatory and environmental policies. It focuses on the geographical scope of decision making with both domestic and international perspectives. The goal of the area is to align with and contribute to the vision and mission of the institute and contribute to nation building through teaching, research, industry connect and policy making of government bodies. In addition to offering Institute core courses like Managerial Economics, and Strategic Management, common to all programmes, the area has a large number of programme-specific as well as Institute 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, Banking Sector, Competition Policy, Behavioural Corporate Finance, Corporate Governance, International Trade and Mergers and Acquisitions.

#### b) List of Area Members and their Specialization (as per alphabatecal order)

Name of Faculty		Area of Research
Prof. Binilkumar Amarayil Sreeraman (Assistant Professor)  Prof. Mainak Mazumdar (Assistant Professor)		Economic of Renewable Energy and Distributed Energy Systems, Multi-modal mobility choice studies, Moral hazard of drivers and road safety, Regional Innovation Systems and Competitiveness of Industrial Clusters, Economics of Climate Smart Agriculture, Environmental and Natural Resource Economics, Non-market Valuation of Natural resources, Environmental Policy.
		Applied Econometrics, Development Economics Industrial Economics, Economics of efficiency an productivity
Prof. Poonam Singh (Assistant Professor)		Competition Policy, Corporate Governance



Name of Faculty	Area of Research			
Prof.Som Sekhar Bhattacharya (Associate Professor)	Strategic Management, International Business Strategy, Mergers and Acquisitions, Strategy and Organization, Strategic Corporate Social Responsibility			
Prof. Utpal Chattopadhyay (Associate Professor)	Economic Environment of Business, Globalization & Global Competitiveness, International Trade			
Prof. Vijaya Gupta (Professor)	Socioeconomic impacts of climate change, adaptation strategies in agriculture due to climate change, vulnerability assessment due to climate change, environmental policy, growth and environment, environmental valuation, industrial productivity, social entrepreneurship, developmental issues.			

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

# 1. Academic - Courses offered

The area has offered core courses as well as multiple elective courses in the area of Economics and strategy

#### PG and Fellow programmes

#### **Core Courses**

- Managerial Economics
- Strategic Management

#### **Electives**

- Macroeconomic Environment and Policy
- Business Analysis and Econometric Applications
- Economics of Regulation
- Economics of Strategy
- Environmental Economics
- Global Trade and Institutions
- Industrial Organization
- International Business Strategy

- Mergers and Acquisitions
- Strategy and Organization
- Strategy Planning and Organisation
- Public Systems and Policy
- Resource Economics
- Industrial Resource Economics
- Indian Economy
- Behavioural Economics
- Economic Application of Game Theory
- Digital Economics
- Economics of Retail and Distribution
- Network Economics
- Development Economics
- Economics of Agri Business
- Rural Economy
- Public Finance
- Carbon Market Analysis
- Economics of Climate Change
- Corporate Governance
- Economics of innovation



- Money and Banking
- Growth and Structural Change
- Urban Economics
- Agglomeration Economics
- Advanced Econometrics
- Econometrics for Programme Evaluation
- Environmental Valuation
- Market Design
- Customer Analytics

# **Management Development Programmes**

- Business Decision Making
- Managerial Skills for Technical Personnel
- Strategy and Leadership Development for Managers
- Corporate Performance Measurement
- Economic Tools for Managers
- Productivity, Efficiency and Business Forecasting
- Competition Policy
- Economic Indicators for Managerial Decision Making
- Network Market for Business Decision Making

# Research /Publications/Conference/Research Projects/Workshops

# Prof Som Shekhar Bhattacharya

#### Journal publications

- Bhattacharya S S and Atre S, (2020) Additive Manufacturing Technology; realities and strategic perspectives from India", International Journal of Asian Business and Information Management (IJABIM), Vol. 11, Issue 1, pp-1-20.
- 2. Bhattacharya S S , (2020) Humanistic orientation in firm-stakeholder technology-based interaction and its impact on stakeholder satisfaction, Emerging Economy Studies, Vol 6, (No 1),pp-86-105.

- 3. Bhattacharya S S, (2020) Development of a typology regarding Collaborative Inter-Firm Corporate Social Responsibility (CIF-CSR) initiatives; Explication through conceptual archetypes., FIIB Business Review, Vol 9, No-1,pp-55-66.
- 4. Bhattacharya S S (2020) Doctoral Research Work in Strategic Management: Perspectives for Executives & Part-time Candidates, IJIR, Vol 55, No 4, pp-710-720.
- 5. Bhattacharya S S , Jha S and Sharma D , (2020) Development of a scale on individual perspectives on Corporate Social Responsibility constructs: Based on microfoundation theory, Vision, Vol 24, No-1, pp-47-59.
- 6. Bhattacharya S S (2020) Explicating the characteristics of 'Yogic perspectives' and 'Vedic philosophy' for individual growth; Evolving from manager to a business leader. IJIR, Vol 56, No 2, pp-374-383.
- 7. Yalla, S. P., Jain, K., & Bhattacharya, S. S. (2020). Impact of monetary policy announcements on bank index in India. Afro-Asian Journal of Finance and Accounting, 10 (1), 112-130.
- 8. Bhattacharya, S. S., & Naser, S. (2020). Comparative analysis of mergers and acquisitions in Indian and international pharmaceutical industry with unique case-lets. International Journal of Business and Globalisation, 25(1), 112-136.
- Jha, S., & Bhattacharya, S. S. (2020). Moderated Mediation Analysis of Leader Technology Orientation: A Study of Operations and Manufacturing Leaders of India. Journal of Operations and Strategic Planning, 3(1), 58-80.
- 10. Bhattacharya S S(2020) International Business Strategy: Development of an integrated framework and typology, Review of



- International Business and Strategy, Vol. 30 No. 3, pp. 345-373. https://doi.org/10.1108/RIBS-10-2019-0138
- Bhattacharya SS, (2019) "Development of International Corporate Social Responsibility framework and typology" Social Responsibility Journal, Vol. 16 No. 5, pp. 719-744. https:// doi.org/10.1108/SRJ-04-2018-0094
- 12. Bhattacharya S S and Verma S, (2019) ."The intellectual core and structure of International Business Strategies (IBS): a co-citation analysis, Review of International Business and Strategy, , Vol. 29 No. 3, pp. 180-206.
- 13. Bhattacharya S S, (2019), Study of industry level 'Bargaining Power': Quest for 'Value Capture' versus 'Value Creation', Journal of Services Research. Volume 19 Number 2 (Oct. 2019 March 2020),pp-43-60.
- 14. Verma S, Chaurasia S and Bhattacharya S S,(2019) "The effect of government regulations on continuance intention of in-store proximity mobile payment services", International Journal of Bank Marketing, Vol. 38 No. 1, pp. 34-62.
- 15. Verma S and Bhattacharya S S, (2019) The intellectual core of Mergers and Acquisitions-a co-citation analysis, International Journal of Business Innovation and Research, Vol. 20 No. 3, pp. 305-336.
- 16. Bhattacharya S S , Raghuwanshi V, Mohan K, Prasad A, Murari K and Sarkar A (2019)" An empirical investigation of the internationalization of Indian engineering, procurement and construction firms." , Indian Journal of Industrial Relations, Vol 55, No 3, pp-506-558.
- 17. Bhattacharya S S, (2019) Comparative cross cultural study of Indian managers' perspectives on doing international business in Bedouin and Guanxi culture, International Journal of

- Asian Business and Information Management (IJABIM). Vol. 10, Issue 3, pp-1-21.
- 18. Bhattacharya S S and Nair S, (2019) 'Explicating future of work; perspectives from India' Journal of Management Development. Vol 38, No 3, pp- 175-194.
- 19. Nayak, B., Bhattacharya, S. S., & Krishnamoorthy, B. (2019). Integrating wearable technology products and big data analytics in business strategy. Journal of Systems and Information Technology, , Vol. 21 No. 2, pp. 255-275.
- Bhattacharya, S. S., & Malik, A. (2019). Development of an integrated canvas on turnaround strategy. International Journal of Organizational Analysis, Vol. 28 No. 2, pp. 523-554.
- 21. Nayak, B., Bhattacharya, S. S., & Krishnamoorthy, B. (2019). Application of digital technologies in health insurance for social good of bottom of pyramid customers in India. International Journal of Sociology and Social Policy, Vol. 39 No. 9/10, pp. 752-772.
- 22. Bhattacharya S S and Fernandes C , (2019) Carasid: Interventions that make businesses sustainable" , Vision, Vol 23, No-2, pp-208-214.
- 23. Bhattacharya S S (2019) Development of an integrated perspective on strategy implementation, IJIR, October, Vol 55, No 2,pp-306-320.
- 24. Nair A and Bhattacharya 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.
- 25. Nair A and Bhattacharya 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.
- 26. Nayak B and Bhattacharya 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.
- 27. Bhattacharya S S , (2019) "Development of an integrated model on strategic alliance." , Indian Journal of Industrial Relations, Vol 54,No-3,pp-441-457.
- 28. Bhattacharya S S, (2019) LokSuvidha, converting non-customers to customers; the saga of organizational growth through technology, Emerging Economies Cases Journal, 1(1-2), pp-33-42.
- 29. Bhattacharya SS, (2019) "Exploratory study of international CSR initiatives of Indian firms.", Business Strategy and Development.Vol-2,No-1,pp-51-62.

# **Book chapters**

- Bhattacharya S S , Mergers & Acquisition by Indian firms; managerial perspectives on challenges and solutions, in "Dynamic Perspectives on Globalization and Sustainable Business in Asia". IGI Global.
- 2. Bhattacharya S S , "Expats in India: Perspectives on difficulties of doing business in India and its implications of having born global firms from India" in "Dynamic Perspectives on Globalization and Sustainable Business in Asia", IGI Global.
- 3. Bhattacharya and Apurva , S " Supply Chain Startups in India: A cross-case comparative Analysis", in Handbook of Research on Corporate Restructuring and Globalization, IGI Global.

- 4. Bhattacharya S S, Laik, B and Jaiswal R, "Study of technology based innovations in supply chain management function of Indian firms: Strategic imperatives", Managerial Practices and Disruptive Innovation in Asia, IGI Global.
- 5. Jumle V and Bhattacharya S S, Study of motives of Indian strategic alliances: marketing or innovation seeking, "Innovation management and business practices in Asia".

  Innovative Management and Business Practices in Asia, IGI Global.
- 6. Bhattacharya S S, Laik B, Sharma D and Bose T, A comparative historical analysis of the evolution of Venture Capital industry in the economic regions of United States of America, Europe, China with that of India, Innovative Management and Business Practices in Asia, IGI Global.
- 7. Bhattacharya S S and Neenu N (2020) Active social listening and its impact on firm strategies: Study of Indian Context, Global Challenges and Strategic Disruptors in Asian Businesses and Economies, IGI publications.

# Conferences proceedings

- Bhattacharya 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 12-13, 2019 at NTNU Business School Trondheim, Norway.
- 2. Bhattacharya 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 12-13, 2019 at NTNU Business School Trondheim, Norway.



# Prof Vijaya Gupta

# Journal publication

 Barun Kumar Thakur and Vijaya Gupta, (2019), Valuing health damages due to groundwater arsenic contamination in Bihar, India, Economics and Human Biology, Elsevier, 35, 123-132.

### **Book Chapter**

• 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.

# Reviewer and editorial responsibility

- Expert Reviewer for the First Order Draft (FOD) of the Working Group II (WGII) Contribution to the IPCC Sixth Assessment Report (AR6), 2019
- Energy Policy
- Natural Resources Forum, a United Nations Sustainable Development Journal
- Associate Editor and reviewer Journal of Entrepreneurship and Innovation in Emerging Economies

# **Prof Poonam Singh**

#### Journal publication

• KS Ranjani, Poonam Singh. Reciprocity, performance, and training expenditure in microfinance institutions: evidence from South Asia, Enterprise Development and Microfinance, 2019, 30(2):97-116

# Policy paper:

 Poonam Singh. Takeover and Corporate Governance in India, NSE Centre for

- Excellence in Corporate Governance Quarterly Briefing, February 2020
- PG Babu, Vikas Kumar, Poonam Singh. Employment and Covid-19: Trends and Issues in Tamil Nadu, Occasional Policy Paper 11 (Covid-19 Series), 2020.

# **Popular Press:**

 Vikas Kumar and Poonam Singh. The problem of excessive purchasing power in politics, Mint, 14 August 2019

# Research Project

 Poonam Singh and KS Ranjani, Impact of Skill Development Programme on Borrower and Institutional Development in Microfinance, ICSSR IMPRESS. 2019. Amount of grant 5 lakhs.

# **Prof Utpal Chattopadhyay**

#### **Book Publication**

Utpal Chattopadhyay, 2020, Inclusive Growth
 An Indian Perspective with Paramasivan Sivasooriyan Vellala, Mani K Madala as coauthors, Bookwell Publications, New Delhi, 2020, 244 pages.

#### Conference/ Seminar papers

- Chattopadhyay, Utpal, Make, Break or Exit: Tata Motor's JLR Dilemma over Brexit, presented in International Conference on Management Cases (ICMC 2019), organised by Birla Institute of Management Technology (BIMTECH), Greater Noida, December 05-06, 2019.
- Chattopadhyay, Utpal, Mukundan, R. and Arun, A., Technology Transfers through International Joint Ventures- Case of Indian Automotive Industry, presented in 28th International Conference of the International Association for Management of Technology IAMOT 2019, organised by NITIE and IAMOT, Mumbai, April 7-11, 2019.



#### Awards/ Achievements

 Received Faculty Excellence and Student Development Award from NITIE Alumni Association (NAA) during Sansmaran 19 held on 2nd November 2019.

#### Prof Binilkumar AS

#### Conference presentations

- Binilkumar Amarayil Sreeraman and Gyanendra Singh Konthoujam 2019 Preferences of Stakeholders over Sustainable Conservation of a Wetland Ecosystem: A Case of Loktak Lake in Manipur India presented at 2nd Annual Sustainability and Development Conference (Organised by Elsevier), held on 11-14, October 2019, at University of Michigan.Ann Arbor, Michigan (USA).
- Binilkumar Amarayil Sreeraman and Karuna Jain 2019 Regional Innovation Systems and Competitiveness of MSME Clusters: A case of Sangli Raisin Making Cluster in Maharashtra, INDIA presented at 28th International Conference of the International Association for Management of Technology held on 7-10 April 2019 at Mumbai, India.

# Research Projects Undertaken

 Prof. Binilkumar Amarayil Sreeraman has initiated a research project on "Preference Over Multi-Modal Mobility Options of Urban Dwellers: A Case of Aizawl City in Mizoram" in collaboration with Prof. Gyanendra Singh of NIT Mizoram, funded by Indian Council of Social Science Research under IMPRESS Scheme.

#### 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 a reviewer of Sage, Elsevier and Springer Journals in the area of Environmental Economics
- Prof. Binilkumar Amarayil Sreeraman has been acted as a reviewer for the latest edition of Domestic Salvatore, Managerial Economics Text Book for Oxford University Press India.

#### **Awards**

 Prof Binilkumar A S received Faculty Excellence and Student Development Award from NITIE Alumni Association (NAA) during Sansmaran 19 held on 2nd November 2019.

#### Prof Mainak Mazumdar

#### Conferences paper:

• Mainak Mazumdar, 2019, Is Agriculture Still Important for Sustainability and Convergence of overall Economic Growth? The striking case of India" participated in the Sustainability and Development Conference. The conference was hosted by The University of Michigan and took place October 11-14, 2019.

# Conference and Workshop organized:

- As a Centre Coordinator of The Centre for Global Competitiveness organized training on the Udyammimitra portal of SIDBI, provided to MSMEs and students attended the workshop on 02nd March 2019.
- 2. In IAMOT, organized two sub-themes in Technology Management in SMEs and Innovation System for MSMEs.
- 3. The Centre organized a workshop on Fintech Reinvesting MSME's in India, in MSME Entrepreneurship Conclave 2019, on 18th Oct. 2019, under the umbrella of AVARTAN.



# 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. This 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 specialisation:

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. Ajaya Kumar Panda (Assistant Professor)	International Finance, Applied Corporate finance, Financial Economics and Applied Econometrics	Teaching, Training, and Research
2.	Prof. K. S. Ranjani (Assistant Professor)	Accounting Financial Inclusion Project Finance	Teaching, Training, and Research
3.	Prof. Venkateswarlu (Professor)- On lien at present.	Risk Management Corporate Finance Quantitative Finance Regulatory Risk, Cost of Capital and Valuation Project Finance	Teaching, Training & Research
4.	Prof. Vipul Kumar Singh (Assistant Professor)	Financial Engineering, Applications of Derivatives in Project Management, Financial Markets	Teaching, Training, and Research

#### c) 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 2019-20 area has offered many electives, that are heavily subscribed by the students.



Faculty	Electives Offered				
Prof. K.S. Ranjani	1. Strategic Cost Manageent				
Prof Vipul Singh	2. Financial Derivatives				
	3. Financial Time Series Modeling				
Prof. Ajaya Kumar Panda	4. Investment Analysis and Portfolio Management				
	5. International Finance, Forex Management and Analytical Finance.				

Following is the list of core and electives courses currently on the 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.

# **Program 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:

- 1. Offer the basics of financial management and its environment to the participants.
- 2. 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 decisionmaking 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**

**Course Objectives**: The course primarily aims to acquaint participants/students with the basics of different types of financial derivatives instruments and focuses on various standardised 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 the interlinking of derivative products and risk management.

# Financial Risk Management

**Course Objectives:** 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**

#### **Course Objectives:**

- To introduce the concept of regression and to apply OLS (ordinary least square) method in Finance using Eviews or MS EXCEL.
- To able to identify the reasons as to why OLS (ordinary least square) method of regression will not always suffice for analysis of timeseries 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 MS 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 has published quality research papers indexed in Scopus and Web of Science. In future, the area would like to collaborate within and outside the area and produce Research that would be multi-disciplinary. Below is the list of research papers published by the area faculties in 2019-20.

- Panda. A.K, Nanda S and Panda, P (2020), Working Capital Management, Macroeconomic Impacts, and Firm Profitability; Evidence from Indian SMEs, (Accepted), Business Perspectives and Research (Sage) SCOPUS
- 2. Panda. A.K. and Nanda S. (2020), Receptiveness of effective tax rate to firm characteristics; An empirical analysis on Indian listed firms, (Accepted), Journal of Asia Business Studies-(Emerald), SCOPUS.
- Ranjani K.S., Singh Poonam (2019).
   Reciprocity, Performance and Training Spends: Evidence from South Asia. Enterprise Development and Microfinance. (Accepted)
- 4. Singh, V. K., Kumar, P., and Nishant, S. (2019). Feedback Spillover Dynamics of Crude Oil and Global Assets Indicators: A Systemwide Network Perspective. Energy Economics, 80(May), 321-335. https://doi.org/10.1016/j.eneco.2019.01.005 (A\* Category)
- Nanda S. and Panda. A.K. (2019), A Quantile Regression Approach to Trail Financial Performance of Manufacturing Firms, Vol. 20, No: 3, pp: 290-310. Journal of Applied Accounting Research, SCOPUS, ABDC-C
- 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, African Journal of Economic and Management, Vol. 10, No: 3, pp: 314-335; SCOPUS, ABDC-C
- 7. 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

8. 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: 2, pp.174-198, https://doi.org/10.1108/MRR-01-2018-0024, SCOPUS, ABDC-C.

# **Management Development Program**

**Title:** Financial Time Series Modeling using Python

**Duration:** 5 classes, 3 hours per class: 15 hours

**Date:** 10th Oct., 11th Oct., 16th, 17th and 18th

Oct 2020

Participants: Faculty, Research scholars,

Professionals from finance, economics and related

functional areas

**Delivery:** Web based Sessions

# Course Coordinator and Faculty Resource:

Dr. Ajaya Kumar Panda



# **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 (as per alphabatecial order):

Sr. No.	Faculty	Focus Area	Spectrum of Work			
1.	Prof. Manoj Kumar Jha	Marketing Management	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			
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		

Research – Fellow (Awarded & Ongoing)

Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area / keywords
1.	Trisha Parekh	Prof. M.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 (Thesis Submitted)	Prof. Sanjeev Verma	Determinants of Engagement on Social Media: A Study of NGO's in Indian Education Sector	Industry	Customer Engagement



Sr. No	Fellow	Faculty	Topic	Research Level - Firm / Industry / Sector	Research Area / keywords
8.	Harish Suri	Prof. Sanjeev Verma	Determinants of Experience Components that Co-create Value for Customer: A Study in Indian Healthcare Industry	Industry	Customer Experience
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

# Prof. Sanjeev Verma

#### **Publications**

- 1. Singh, V., Chaudhuri, R., & **Verma, S.** (2019). Psychological antecedents of apparel-buying intention for young Indian online shoppers. *Journal of Modelling in Management*.
- 2. Bhattacharya, A., Srivastava, M., & **Verma, S.** (2019). Customer experience in online shopping: a structural modeling approach. *Journal of Global Marketing*, 32(1), 3-16.
- 3. Prasad, R. K., & **Verma, S.** (2019). Industry-Institute Perceptual Map (PM) and Management Students' Satisfaction Index (MSSI): A Road Map for Academic Excellence. *Prabandhan: Indian Journal of Management*, 12(11), 21-31.
- 4. Prasad, R. K., & **Verma, S.** (2020). An Investigation on Brand Boycott: Understanding Negative Psychology of Consumers in the Era of Digital Marketing. *Academy of Marketing Studies Journal*, 24(1).



#### Prof. Neeraj Pandey

- 1. Pandey, N., Tripathi, A., Jain, D., & Roy, S. (2020). Does price tolerance depend upon the type of product in e-retailing? Role of customer satisfaction, trust, loyalty, and perceived value. *Journal of Strategic Marketing*, 28(6), 522-541.
- 2. Tripathi, A., & Pandey, N. (2019). Voluntary pricing mechanisms for green product purchase: altruistic versus self-enhancing consideration. *The International Review of Retail, Distribution and Consumer Research*, 29(2), 198-217.
- 3. Pandey, N. (2019). Case Analysis II Carasid: Interventions that Make Businesses Sustainable. *Vision*, 23(2), 217-218.
- 4. Singh, G., & Pandey, N. (2019). Revisiting green packaging from a cost perspective. *Benchmarking: An International Journal*, 26 (3), 1080 -1104.
- 5. Tripathi, A., & Pandey, N. (2019). Promotional framing of green products: Mediating role of sale proneness. *Journal of Promotion Management*, 25(7), 983-1008.
- 6. Pandey, N., Patwardhan, A. A., & Rao, S. (2019). Four decades of new product development research: an integrative review. *International Journal of Product Development*, 23(1), 1-14.
- 7. Pandey, N., & Gudipudi, B. (2019). Understanding 'what is privacy'for millennials on Facebook in India. *Journal of Data Protection & Privacy*, 2(3), 224-233.
- 8. Pandey, N., & Raina, A. (2019). Five decades of research in healthcare pricing: future directions for academia and policymakers. *International Journal of Management Practice*, 12(3), 301-320.



# ORGANIZATIONAL BEHAVIOUR AND HUMAN RESOURCE MANAGEMENT

# I. Area Objective

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.

# II. List of Area members and their specialization

Sr. No	Faculty	Focus Area	Spectrum of Work			
1.	Prof. D. K. Srivastava (DKS)	HR& OB, Principles of Management	Organizational Structure & Performance, Training & Development.			
2.	Prof. S. K. Nair (SKN)	OB & HR, Psychology	Job Redesign & Work Motivation, Psychologica Assessment, Personnel Selection, Leadership Positive Psychology.			
3.	Prof. T. Prasad (TP)	Principles of organization and Management, Entrepreneurship	Entrepreneurship, Developing entrepreneur personality			
4.	Prof. Nikhil K. Mehta (NKM)	Communication, Ethics	Pedagogical Developments, Human Communication, Transactional Analysis, Bhagavad Gita, Indian Culture, Queer Studies.			
5.	Prof. Sumi Jha (SJA)	OB and HR, Analytics	Leadership, HR analytics, Competency management, Organizational health and employee empowerment.			
6.	Prof. Upasna A Agrawal (UAA)	OB and HR, Communication, Career development	Leadership, Gender, Entrepreneurship, Diversity and Inclusion, Discretionary behaviors			
7.	Prof. Sumant K. Bishwas (SKB)	Organizational behaviour and Strategic leadership	Human Resource Management, Strategic leadership, HR Analytics			

# III. 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	14	6	20				
2	Prof. S.K. Nair	12.5	3	15.5				
3	Prof. T. Prasad	7.5	9	16.5				
4	Prof. N.K. Mehta	18	7	25				
5	Prof. S. Jha	14.5	6	20.5				
6	Prof. U A Agarwal	14.5	6	20.5				
7	Prof. S.K Biswas	9	3	12				



# IV. Courses Offered by the Area Faculty in the Postgraduate Programme

# 1. Institute Core Subjects:

- Business Communication
- Legal and Ethical Aspects of Business (50 % shared along with Economics and Strategic Area)
- Organizational Behaviour

### 2. Programme Core Subjects

• Human Resource Management

#### 3. Non-Area Programme Core Subjects

- Business Research Method
- Strategic Management

#### 4. Electives

- Entrepreneurship development
- HR analytics
- Leadership Development
- Qualitative Research
- Competency Assessment
- Organizational Development
- Managing Negotiations
- Principles of Management
- Positive Psychology
- Soft Skills Development
- Strategic HRM
- Diversity and Inclusion

# V. Courses Offered by the Area in the Fellow Programme

- Research Methodology II
- Organizational Structure Theories and Design (stream specific core)
- Strategic HRM (stream specific core)
- Personality Theories (stream specific elective)

#### VI. Research 2019-2020

#### **Present Fellow Students**

DKS	SKN	TP	NKM	SJA	UAA	SKB	
1	1	1.5	2.5	2	1	0.5	



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

SN	Academic activity	No. of Students							
		DKS	SKN	TP	NKM	SJA	UAA	SKB	Total
1	Fellowship awarded	1	1	-	-	3	1	NIL	06
2	Summer Internship	8	8	8	8	8	8	8	56
3.	Three months PGDIM / PGDISM projects Field Project	5	5	5	5	5	5	5	35
4 Six-month PGDIE PGDMM / PGDM projects		3	3	3	2	2	2	2	17
	Totals	17	17	16	15	18	16	15	114

#### **VIII. Publications of Faculty Members**

Faculty	Conferences	Journals	Case/ Case Studies	Newsletters / others	Book	Book Chapters	Total
DKS	02	01	00	00	00	00	03
SKN	00	03	00	00	00	00	03
TP	00	01	00	00	00	00	01
NKM	02	02	01	00	00	00	05
SJA	00	06	01	00	00	00	07
UAA	02	12	00	00	00	00	14
SKB	01	00	00	00	00	01	02
Total	10	25	02	00	00	01	38

#### IX. Publications

- Jain, S. & **Nair, S. K.** (2019). "Exploring Job and Family Satisfaction: Scale Validation and Role of Demographic Variables". Asia Pacific Journal of Management Research & Innovation (Sage).
- Jain, S. & **Nair, S. K.** (2020). Exploring the Moderating Role of Core Self-Evaluation in the Relationship between Demands and Work-Family Enrichment, Journal of Indian Business Research (Emerald).
- Nair, B. P., **Prasad, T., & Nair, S. K.** (2020). "Study Examining Impact of Authentic Leadership on Team Members' Work Engagement", IOSR Journal of Business & Management, 22(7)
- Agarwal, U. A., & Rai, A. (2019). Exploring bullying among Indian managers: a grounded theory approach. *Journal of Asia Business Studies*.
- Rai, A., & **Agarwal, U. A.** (2019). Examining the Relationship Between Personality Traits and Exposure to Workplace Bullying. Global Business Review, 20(4), 1069-1087.
- Rai, A., & **Agarwal, U. A.** (2020). Examining the impact of justice perceptions on workplace bullying: a moderated mediational model of PCV and PDO. Personnel Review.



- **Agarwal, U. A.** (2019). Examining links between abusive supervision, PsyCap, LMX and outcomes. Management Decision.
- **Agarwal, U. A.,** Dixit, V., & Jain, K. (2019). Exploring the Role of Organisational Practices in Influencing Horizontal Leadership in Projects: A Study of Indian Organizations. Project management in the emerging world of disruption, 216.
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# X. Area Involvement in Institute Administration

SN	Name of the Faculty Member	Institute Administration
1	Prof. D. K. Srivastava	Director-Incharge, NITIE; Chairpersona, NAA; Chairperson: Health Care Management Committee, PRMS, Advertisement Committee
2	Prof. S. K. Nair	Area Coordinator-OB and HRM, Professor-In-Charge Psychology Lab
3	Prof. T. Prasad	Faculty Coordinator: Swacch Bharat Abhiyaan, Subscriber-NIFIE
4	Prof. N. K. Mehta	Prof. In-charge Communication Centre, Member-Hindi Rajbhasha Karyanvayan Samitee, VLFM Committee member –Admission, Chairperson Staff club, Coordinator- Ek Bharat Shrestha Bharat.
5	Prof. S. Jha	Programme Coordinator -PGDIM, Coordinator, Secretary NITIE Alumni Association
6	Prof. U. A. Agarwal	VLFM Committee Member, Member Communication Centre, PIC-CDEL

# XI. Outreach

# **Management Development Programme**

SN	Course Title	Duration	Starting Date	Course Leader(s)	Total No. of Participants
1	Managerial Skills for Technical Personnel	3-Day	14.10.2019	Prof. D. K. Srivastava	07
2	Managerial Skills for Technical Personnel	3-Day	17.02.2020	Prof. T. Prasad	09

# **Unit Based Programme**

SN	Course Title	Name of the Organisation	Duration	Starting Date	Course Leader(s)	Total No. of Participants
1.	Managerial	M/s. Indian	5-day	03-02-2020	Prof. T.Prasad,	25
	Skills for	Rare Earths			Prof. Nikhil K. Mehta	
	Technical	Limited,			Prof. B. E. Narkhede	
	Personnel	Mumbai			Prof. Poonam Singh	



# Consultancy

SN	Faculty	Topic	Organisation	Consulting/PCS
1.	Prof. D.K. Srivastava/ Prof. R. Raut/ Prof. P. Acharya	Manpower Study	M/s. Coromandel International Limited, Ankaleshwar Plant, Bharuch, Gujarat	Consulting
2.	Prof. D.K. Srivastava/ Prof. R. Raut/Prof. P. Acharya	Manpower Study	M/s. Coromandel International Limited, Ankaleshwar Plant, Bharuch, Gujarat	Consulting
3.	Prof. V. Khanapuri, Prof. B. Narkhede, Prof. Ruchita Gupta, Prof. Rakesh Verma, and <b>Prof. S. Jha</b>	Manpower Study	M/s Prism Cement Ltd.	Consulting

# **Faculty Achievements**

- Prof. D.K. Srivastava served as Director In-charge, NITIE From August 30, 2019-Nov 04, 2019.
- Prof. D.K. Srivastava was invited as Keynote speaker in International Supply Chain and Logistics Conference Mumbai Sept 19-20
- Prof. D. K. Srivastava delivered expert lecture in industry-institute conclave organized by NIT, Raipur 09-09 Nov 2019.
- Prof. N.K. Mehta received Best Professor-Motivation certificate during Teachers Day celebration-2019 from NITIE students.
- Prof. Sumi Jha received AIMS International women Management teacher award 2019.

# **ACADEMIC ACTIVITIES**

# c. Academic Infrastructure

- Laboratories
  - (a) Ergonomics Laboratory
  - (b) Digital Manufacturing Laboratory
  - (c) Industrial Environment Laboratory
  - (d) Psychology Laboratory
  - (e) NITIE Foundation for Innovation and Entrepreneurship (NIFIE)
- Library
- Digital Informatics Centre (DISC)





# **ERGONOMICS LABORATORY**

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.

#### Centre R&D Activities:

# 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

# **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 on 19th April 2019 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 on 19th April 2019. 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.



# DIGITAL MANUFACTURING LABORATORY

The Digital Manufacturing Laboratory (DML), formerly known as the AMCE (Advanced Manufacturing Centre of Excellence), was established at NITIE through a DST project under FIST (Funds for Improvement of Science and Technology) during 2006-07. As of today, the DML includes facilities as below:

#### Software

One user license of AnyLogic Simulation software.

Witness 2006 Simulation software.

CNC-Train, FMS-CIM, and M-Robot software

#### **Hardware**

Reverse Engineering - EIN Scan Pro handheld 3D Scanner.

Ultimaker 3 extended Rapid Prototyping System (3D Printer).

FMS/CIM setup including XL Mill, XL Turn, Aristo Robots, Automated Storage/Retrieval (AS/RS) systems, Automated Guided Vehicle (AGV), Automatic Assembly Station.

DML lab has a team of four professors, namely Prof. Milind Akarte, Prof. Vivek Khanzode, Prof. Balkrishna Narkhede, and Prof. Kanchan Joshi. Some of the important activities carried out by the DML during April 2019 – March 2020 are as below:

Installation of Post-Air filter for the air compressor line connection to the FMS has been completed.

The process of hiring a research assistant for the DML has been completed, and one research assistant has joined the Lab on March 02, 2020 to support various administrative and technical activities.

As per the Annual Maintenance Contract (AMC) process, the FMS setup has been made operational to demonstrate the same to the PGP students.

The Flexible Manufacturing System (FMS) setup, 3D Printing, and reverse engineering technology have been demonstrated to PGDMM students with FMS as an elective subject, Fellow and VLFM students of the Institute.

Under DML, it was proposed to conduct a Half-Day workshop on Additive Manufacturing with a theme "Opportunities and Challenges for Adopting Additive Manufacturing in Indian Industry" on March 14, 2020. The workshop was planned to create awareness among the students and faculty with the inputs from eminent industry and academic experts. However, in the last phase, the workshop was postponed due to COVID19 outbreak. For the above workshop, Memento for experts is created inhouse by using 3D printing.

The following activities were proposed for the next year

- Increase technology awareness among NITIE students and encourage them to use the facilities for case studies/projects works.
- Offer Summer/winter internship to external UG/PG students.
- Enhance the existing facilities or create the new project proposals for the latest technologies like IoT, Smart Manufacturing, digital manufacturing, etc. so that NITIE students can be provided with the insights on these emerging technologies.
- Propose new courses/electives like "Additive Manufacturing: Operations perspective" and "Smart Manufacturing" in association with DML for PG students of the Institute.



# INDUSTRIAL ENVIRONMENT LABORATORY

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 the assessment environment. impact these operations on air, water and soil environment become inevitable. To meet the above requirements, the researchers in the industrial environment laboratory conducts monitoring of water, air quality and noise quality. It is also equipped to analyze environmental samples and for demonstration of environmental instrumentation to students and researchers. Prof. Vidvadhar V. Gedam coordinates the laboratory with one technical staff actively seeking and submitting research proposals for external research grants.

R&D Activities: Experimentation and analysis under research project (i.e. SARASWATI and other projects)

# Physical facility available in the laboratory:

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

#### Laboratory outcomes

 The instruments and physical facility was used during the year 2019-2020 to teach the students of the Post Graduate Diploma Programme in Industrial Safety and Environmental Management (ISEM) for

- subjects like Solid Waste, Water and Wastewater, Hazardous Waste, Air and Noise Management, Noise and e-Waste Management.
- 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 laboratory.
- 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 MDP and UBP participants in the EHS area.



Industrial Environment Lab



# **PSYCHOLOGY LABORATORY**

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

The Psychology Lab is managed professionally 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, Professor in the OB & HRM area and has Masters' and Ph.D. degree in Psychology. He has acquired extensive experience in aptitude and personality testing while working in the Institute of Banking Personnel Selection (IBPS), Mumbai for more than five years. 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.

**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 class-room teaching by the OB and HR faculty.
- Using the psychometric tests in the classroom as a part of the self-awareness and 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 psychometric tests in the Psychology Lab have used include core courses such as Behaviour. Organizational Human Resource Management, and Business Communication as well courses such as Positive Psychology in Psychology, Organization, Cognitive Theories & Assessment of Personality, Soft Skills Development, and Leadership Development.



# NITIE FOUNDATION FOR INNOVATION AND ENTREPRENEURSHIP (NIFIE)

The following developments took place during 2019-2020;

- Company NIFIE got incorporated with ROC, Ministry of Corporate Affairs, Govt. of India.
- The NIFIE Board has been formed with the following list of subscriber and Subscriber cum Directors.

S.No.	Name of the Subscriber	Designation
1.	Dr. Manoj Kumar Tiwari	Subscriber & First Director
2.	Dr. Koteswara Rao Naik Bhukya	Subscriber & First Director
3.	Dr. Ajaya Kumar Panda	Subscriber & First Director
4.	Dr. Prasad Teegalapalli	Subscriber
5.	Dr. Hema Achal Date	Subscriber
6.	Dr. Vivekanand Basaveshwar Khanapuri	Subscriber
7.	Dr. Utpal Chattopadhyay	Subscriber



# **LIBRARY**

#### **About:**

Since 1965, the National Institute of Industrial Engineering (NITIE) Library is a learning and knowledge resource centre for the academic community. Keeping in view the increasing collection and to improve the service of the library, the library moved to the new premises at "Academic cum Library Building" in 2016. The new library comprised of three floors and has more space and facilities. 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. Provision of these services has made the library a happening comfortable place for the users.

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.

#### 2. Collection:

The objective of NITIE library is to facilitate acquisition, organisation, and dissemination of knowledge resources and providing value-added services. The total collection of the library (as on March 31, 2020) is presented as follows in Table. The Library collection is as under:

Collection	Nos.
Technical Books	57297
Light Reading Books	8023
Hindi Books	2920
Marathi Books	855

Collection	Nos.
Complimentary + Free Books	1440
Technical Journals	103
	(58 Online;
	12 print +
	Online; 33 Print)
Semi-Technical, Light Reading	45
Journals	
&Magazines	
Bound Volumes	11955
Newspaper	21
• English	
• Hindi	
Regional Language Newspapers	7
• Marathi,	
Gujarati,	
• Tamil,	
• Telugu,	
Malayalam, and	
Bengali.	
Total	82490

#### 3. Other Subscriptions:

Apart from the aforementioned subscriptions, NITIE library also subscribes to some important **databases** and **educational software**:

#### 1. CMIE

- 1.1 ProwessIQ
- 1.2 Industry Outlook
- 1.3 Economic Outlook
- 1.4 States of India
- 2. CEIC Database



- 3. EBSCO: Business Source Complete
- 4. EBSCO Discovery Services
- 5. Emerald Management Extra 310
- 6. Emerald Cases
- 7. EMIS database
- 8. EPWRF ime Series
- 9. Euromonior Database
- 10. E-view Software
- 11. Grammarly Software: Writing Tool
- 12. HBS Cases
- 13. IEEE ASPP/POP
- 14. IMD World Database
- 15. Indiastat Database
- 16. INFORMS Collections
- 17. Proquest ABI/INFO
- 18. RemoteXs Facility— for accessing the subscribed databases outside the campus through secured login credentials
- 19. Science Direct
  - 19.1 Business Management & Accounting
  - 19.2 Decision Science
  - 19.3 Environment Science
- 20. SCOPUS Database
- 21. Subscription to other individual journals/ magazines of the reputed publishers
- 22. Taylor & Francis 3 Subject Collections
  - 22.1 Science & Technology
  - 22.2 Business Management & Economics
  - 22.3 Planning & Urban Environment
  - 23. Turn-it-in: Anti Plagiarism Software

NITIE Library is also 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 get 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. URKUND Plagiarism Detection Software
- 11. World e-book library
- 12. 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.

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

The library has upgraded its library management software into "LIBSYS.10 – Webcentric Version". For library security, the entire collection is Barcode enabled with the 3M security system.

# 5. 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. Case Studies
- 8. Textbook procurement & distribution to PGP students
- 9. The library creates the Institute ID card using LIBSYS Software and distribute to PGP students.
- 10. Remote Access Facility
- 11. User Awareness Programs The Library takes active participation in the institute's Orientation program for the benefit of new students at the beginning of the academic year. Also, regularly organising Webinar, Training session of various Library databases and services.
- 12. Institute I-Cards to Students The Library prepares Institute I-cards for all the students

# 6. Library Interns:

Three library interns were appointed for smooth functioning of the library. As on date, out of three, two has left. Process of hiring new library interns is in progress.

#### 7. New Book Racks:

This year, new book racks has been purchased and installed successfully in the designated place.

#### 8. Reprographic Facilities:

Library has procured a new photocopy machine to enhance reprographic facilities.

# 9. New PC's for setting up Digital Library:

The library received 20 new PC's for setting up Digital Library. In this connection, one room has been identified and 14 PCs installed for the use of the library users and others are installed on a different location of the library.

# 10. Library Committee Meetings:

During the year 04 + 2 (special) Library Committee Meetings were organised to take many decisions related to the development of library, procurement of books, subscription renewal of existing E-resources, etc.

# 11. Library Team:

The Library is managed by a team of 4 professional, 4 Semi-Professional, 2 Administrative staff and 1 Library Intern (on contract). They collectively handle important library activities like Collection Development, Collection Maintenance, Circulation, Reference, and other Information Service.

#### 12. Library Timing:

The library timings at NITIE are as follows:

- 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.



# **DIGITAL INFORMATICS CENTRE (DISC)**

The Institute is equipped with the state of art computer hardware and software facilities 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 were maintained. 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, Manufacturing Management, PGPEX-VLFM and Fellow Programs are being highly benefited in their assignments and projects handling. The latest versions of software like SPSS 26.0, AMOS 26.0, Matlab, Bloomberg, Anylogic, CPLEX - Academic version, Relecura, Typeset have been made available for various users at the Institute along with the Microsoft University Alliance Programme and SAP University Alliance Programme. The utility software like Segrite Antivirus, Adobe creative suite. Adobe DC Pro available for users for the academic and official use. All the software are running on windows and Redhat Linux 5 operating system.

The Institute has signed an agreement with Microsoft for their Microsoft Campus 3 subscription enrolment. All users at Institute shall 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 S00GB/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) to enable students to have the facility of the 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 classrooms/conducting UBP Programmes etc. The online classes, webinars and event are conducted on cloud based video conferencing solution like Webex, Zoom and Microsoft Teams platform. Institute has purchased 1250 licenses of CISCO Webex and subscription-based license of Zoom.

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 utilising the services of 1 Gbps from National Knowledge Network (NKN) and 155 MBPS from M/s Powergrid Corporation of India for providing bandwidth to the Institute. The Institute is also equipped with a Firewall of M/s Checkpoint.

The DISC has assisted all the users, PGP students, Fellowship Scholars, Faculty Members and the departments in their supporting service development works. The DISC facilitates uploading of various information on the NITIE website and admission to the various Programmes through in house developed Admission Portal. The Programme Section. Academic Section. Accounts Section. Administration Section, Placement Section and Library have been largely benefited from the DISC's support. Maintenance of all Computer Equipment, Operating Systems and Application Software, are primarily supported by DISC.



# **RESEARCH CENTRES**

1. Centre for Environmental Studies Prof. Seema Unnikrishnan

2. Centre for Innovation, Incubation and Entrepreneurship

Prof. Koteswara Rao Naik



Annual Report 2019-20





### CENTRE FOR ENVIRONMENTAL STUDIES

This centre was set up in 2009 with the aim to enhance research avenues in Environmental Studies. The centre coordinator was Prof.Shankar Murthy till May 2019. Prof. Seema Unnikrishnan took over in June 2019 as the coordinator of CES.

Staff in Centre: Nil

#### Research Work:

Work carried out under the centre of Environmental Studies during this period are reported as follows:

- Life cycle assessment study of three refineries and Storage Units using the GaBi and Sima Pro Softwares
- A lifecycle assessment study of LEDB22 CFL and incandescent Bulbs
- LCA of waste water plants
- LCA of power plants using Gabi and Sima Pro
- Research Using the CDP Database
- CDP data assessment

Following studies in the sector were carried out:

SN	Study	Sector
1	Study of the cashew business in India and developing a business model	Agriculture
2	Circular economy in agriculture: adaptability and governing factors in Indian context	Agriculture
3	Technologies and Supply chain.	Winery

#### Site Visit:

In the pursuance of centre work and project "Study the production Process and the agricultural supply chain" a site visit to the Sula Winery was carried out. As a part of centre work and their final project work, Mr. Mahesh Chunade and Mr. Sagar Tathoude visited Sula Winery. The aim was to perform a critical study of non-thermal food processing methods and tackling perishability.

#### **Externally Funded Projects:**

- The Project from Sweden on "Research and development on environmental product regulations and policies" has been initiated. The main objectives of this Project was to sector-specific product-related study environmental regulations in India and perform a comparative analysis with other countries within the sector. It will cover a sectoral analysis using various research tools and preparedness analysis of the companies in the sector. The total amount for three years is 23 lakhs (PI: Prof. Anju Singh).
- 2. The project SARASWATI 2.0 has been initiated and to identify the best available as well as affordable decentralised wastewater treatment technologies with the goal of resource/energy recovery and reuse. The project partners are as follows:

#### a. Indian partners

- i. Indian Institute of Technology Kharagpur (Lead Coordinator)
- ii. Indian Institute of Technology Roorkee;
- iii. Indian Institute of Technology Madras;
- iv. Indian Institute of Technology Bhubaneshwar:
- v. National Institute of Industrial Engineering (NITIE) Mumbai;
- vi. Malaviya national Institite of technology, Jaipur (MNIT) Jaipur;
- vii. TERI School of Advanced Studies (TERI SAS), New Delhi).



#### b. European Project Partners:

- i. BOKU University (Lead Coordinator),
- ii. TU Delft, CENTA Sevilla.
- iii. UT.
- iv. UA.
- v. SPI.
- vi. CEMDS.
- vii. SFCU.
- viii. BGU.

The principal investigator from NITIE was Prof. Anju Singh.

- 3. Bombay Chamber of Commerce and Industry (BCCI) sponsored a project on Carbon disclosure Project database was completed and a tool was developed to benchmark industry in their respective sectors using scope 1,2, 3 and total emissions (PI: Prof. Anju Singh, Prof. Sushmita Aghalaya).
- 4. Bombay Chamber of Commerce and Industry (BCCI) sponsored a project on Water disclosure Project database was completed and assessed for trends. Also case studies were collected on water initiatives by companies across India. In the agriculture sector crops and their water requirements were benchmarked globally (Principal Investigators: Prof. Anju Singh and Prof. Seema Unnikrishnan).

# Centre Outcomes and Intellectual Property created:

#### Journal papers

- Anju Singh, Rohit Panchal, Mayuri Naik, Circular economy potential of e-waste collectors, dismantlers, and recyclers of Maharashtra: a case study, Environmental Science and Pollution Research (2020) 27:22081–22099.
- 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
- Sheetal 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
- 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).
- Potdar, A., Unnikrishnan, S., and Singh, A. (2019) "A framework for climate change management in organisations: a case for India", World Review of Entrepreneurship, Management and Sustainable Development, Vol. 15, No. 3, pp. 303-334."
- Shrivastava S, Unnikrishnan S., (2019) Review of Life Cycle Assessment and Environmental Impacts from The Oil & Gas Sector. Oil Gas Res 5: 164. doi:10.4172/2472-0518.1000164
- Shrivastava S, Unnikrishnan S., (2020) Life cycle assessment of oil storage unit in India. Int. J. Oil, Gas and Coal Technology, Vol. X, No. Y, xxxx

#### Conferences:

- Shrivastava S, Unnikrishnan S., (2020). Life Cycle sustainability Assessment of crude oil refineries in India. International Conference on "Energy and Environmental Technologies for Sustainable Development. (14-16 Feb 2020, MNIT, Prayagraj).
- Shrivastava S, Unnikrishnan S., (2019).
   Review of Life Cycle Assessment and Environmental impacts from the Oil & Gas Sector. IAMOT Conference. (7-11 April, 2019, NITIE Mumbai)



# CENTRE FOR INNOVATION, INCUBATION AND ENTREPRENEURSHIP (CIIE)

- This centre was created by merging Center for Mind to Market, NIDHI-TBI Incubation Center and Center for Entrepreneurship Development on December 27, 2019. The proposed budget for the centre is Rs. 20 lakhs
- 2. During 2019-2020, this centre supported one student to register starts-up.
- 3. CIIE has become the Member of Ministry of Education's Innovation Cell, part of which we have created Institute Innovation Council (IIC).
- 4. During the year 30 interested students got registered to work on Start-ups.
- 5. To support the students CIIE has initiated:
  - a. Mentorship programme.
  - b. Incubation services by provision of basic infrastructure and other facilities.



# OUTREACH: INSTITUTE – INDUSTRY COLLABORATION

- i. Management Development Programme (MDP)
- ii. Unit Based Programme (UBP)
- iii. Consultancy Assignments
- iv. Memorandum of Understanding (MoUs)







### MANAGEMENT DEVELOPMENT PROGRAMME (MDP)

# MANAGEMENT DEVELOPMENT PROGRAMMES CONDUCTED DURING 01/04/2019 TO 31/03/2020

Sr. No.	Course Title	Duration	Starting Date	Course Leader(s)	Total No. of Participants
01.	Project Planning & Control	3 Days	26.10.2019	Prof. V. B. Khanapuri Prof. Kanchan Joshi	05
02.	Managerial Skills for Technical Personnel	3 Days	14.10.2019	Prof. D. K. Srivastava	07
03.	Project Management	3 Days	03.02.2020	Prof. Ashok K. Pundir	05
04.	Project Procurement and Contracts Management	3 Days	13.02.2020	Prof. V. B. Khanapuri Prof. Kanchan Joshi	10
05.	Managerial Skills for Technical Personnel	3 Days	17.02.2020	Prof. T. Prasad	09



# **UNIT BASED PROGRAMMES (UBP)**

No	Name of Organisation	Course Title	Venue	Period	Days	Course Leader	No. of Part
1	M/s. Sterlite Technologies Limited, Silvassa	Inventory Management	Silvassa - OFC Rakholi Plant	15th -16th April 2019	2	Prof. (Ms.) Karuna Jain Prof. Sushmita N. Aghalaya	16
2	M/s. Sterlite Technologies Limited, Silvassa	Manufacturing for Competitive Advantage	Silvassa - OFC Rakholi Plant	06-07 June 2019	2	Prof. Priyanka Verma Prof. (Ms.) Neha Srivastava	18
3	M/s. Naman Integrated Management Sevices Pvt. Ltd., Gujarat is agency of M/s. Elecon Engineering Pvt. Ltd. Gujarat	Quality Management	Gujarat	18-19 June 2019	2	Prof. Balkrishna Narkhede Prof. Kanchan Joshi	32
4	M/s. Naman Integrated Management Sevices Pvt. Ltd., Gujarat is their agency of M/s. Elecon Engineering Pvt. Ltd. Gujarat	Industrial Engineering	Gujarat	17-18 September 2019	2	Prof. Balkrishna Narkhede Prof. Jinil Persis	29
5	M/s. ITC limited-Hotels Division ITC Green Centre, Gurgaon	Supply Chain Management	Gurgaon	24th - 26th Sept 2019	3	Prof. Sushmita Narayana Prof. Debabrata Das	31
6	M/s. Naman Integrated Management Sevices Pvt. Ltd., Gujarat is their agency of M/s. Elecon Engineering Pvt. Ltd. Gujarat	Quality Management	Gujarat	09th - 10th October 2019	2	Prof. Balkrishna Narkhede Prof. Kanchan Joshi	22
7	M/s. Bharat Electronics Limited, Bangalore	Industrial Engineering Programme	Bangalore	18th Nov 2019 to 13th Dec 2019	20	Prof. KVSS Narayana Rao Prof. Ashok K. Pundir	25
8	M/s. Indian Oil Corporation Limited, Mumbai	Risk analysis & Hazop Study	NITIE	19th - 21st Nov 2019	3	Prof. Shankar Murthy Prof. Rauf Iqbal	20



No	Name of Organisation	Course Title	Venue	Period	Days	Course Leader	No. of Part
9	M/s. Piramal Pharma Solutions, Mumbai	Web Based Session on Environmental Sustainability	Mumbai	22nd November 2019	50 Minutes	Prof. Seeema Unnikrishnan Prof. Anju Singh	-
10	M/s. Indian Oil Corporation Limited, Mumbai	Risk analysis & Hazop Study	NITIE	18th-20th December 2019	3	Prof. Shankar Murthy Prof. Rauf Iqbal	18
11	M/s. Hindustan Petroleum Corporation Limited, Mumbai	Risk Assessment and Emergency Preparedness	Nigdi, Pune	06th-08th January 2020	3	Prof. Anju Singh Prof. Rauf Iqbal	16
12	M/s. The Indian Hotels Company Ltd.,	Sustainability Leadership Programe	NITIE	03rd - 08th Feb 2020 excluding on 7th Jan 2020	5	Prof. Shirish Sangle Prof. V. V. Gedam	29
13	M/s. Indian Rare Earths Limited, Mumbai	Managerial Skills for Technical Personnel	Odisha	03rd - 08th Feb 2020	6	Prof. T.Prasad Prof. Nikhil K. Mehta Prof. B. E. Narkhede Prof. Poonam Singh	25
14	M/s. Hindustan Petroleum Corporation Limited, Mumbai	Risk Assessment and Emergency Preparedness	Nigdi, Pune	10th - 12th Feb 2020	3	Prof. Seema Unnikrishnan Prof. Rauf Iqbal	14
15	M/s. Hindustan Petroleum Corporation Limited, Mumbai Conducted at Nigdi, Pune	Strategic Project Management	Nigdi, Pune	02nd - 06th March 2020	5	Prof. V. B. Khanapuri Prof. Kanchan D. Joshi	23



## **CONSULTANCY SERVICES**

#### **COMPLETED NITIE CONSULTANCY ASSIGNMENT (2019-20)**

Sl.No	Name of the Organization	Area
1	M/s. H & R Johnson, Pen, Division of M/s. Prism Cement Ltd.	Manpower Study
2.	M/s. Parry Agro Industries Limited,	Ergonomics Study
3.	M/s. Coromandel International Limited, Ankaleshwar Plant, Bharuch, Gujarat	Manpower Study
4.	M/s. Coromandel International Limited, Ankaleshwar Plant, Bharuch, Gujarat	Manpower Study
5.	M/s. Prism Cement Ltd.	Manpower Study

# CONSULTANCY IN PROGRESS Year 2020-21

Sl.No.	Name of the Organisation	Area
1.	M/s. Silica Ceramica Pvt. Ltd., (A Subsidiary of M/s. Prism Johnson Ltd., Vijayawada Plant	Manpower Study
2	M/s. TVS Institute for Quality & Leadership Bangalore	Industrial Workplace Improvement Study
3	M/s. Haldia Petrochemical Ltd.,	Organisational Structure



### 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, Mumbai

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

National Institute of Technology (NIT), Raipur

Administrative Staff College, Hyderabad

### **INDUSTRY** (MoUs)

TVS Motors, Hosur Larsen & Toubro Infotech, Mumbai

# INTERNATIONAL ACADEMIC MOUS

Ecole Centrale de Lille - France

University of Alabama -USA

University of Pittsburgh - USA

#### **PROFESSIONAL MOUS**

National Knowledge Network - New Delhi

Indian Institute of Industrial Engineering - Mumbai

National Productivity Council - New Delhi



# **FACULTY ACTIVITIES**

- Faculty Resources
- Areawise Faculty List
- Conference / Seminars and Awards
- Research and Publications



Annual Report 2019-20





#### **FACULTY RESOURCES**

#### DIRECTOR

#### Prof. Karuna Jain

(Relieved w.e.f. 30/08/2019)

#### Prof. D.K. Srivastava

(Director Incharge from 01/09/2019 to 04/11/2020)

#### Prof Manoj Kumar Tiwari

(w.e.f. 5/11/2019)

#### **PROFESSOR**

- 1. Prof D K Srivastava
- 2. Prof S K Nair
- 3. Prof L Ganapathy
- 4. Prof R Ramaswamy
- 5. Prof KVSS Narayana Rao
- 6. Prof A K Pundir
- 7. Prof (Ms.) Seema Unnikrishnan
- 8. Prof (Ms.) Vijaya Gupta
- 9. Prof M Venkateshwarlu (on lien from 1.04.19 to 31.03.2021)
- 10. Prof Sanjay Sharma
- 11. Prof M K Jha
- 12. Prof T Prasad
- 13. Prof V B Khanapuri
- 14. Prof (Ms.) Hema A Date
- 15. Prof Shankar Murthy
- 16. Prof (Ms.) Purnima S Sangle
- 17. Prof Shirish Sangle
- 18. Prof Milind M Akarte
- 19. Prof Padmanav Acharya

#### ASSOCIATE PROFESSOR

- 1. Prof (Ms.) R D Chikhalkar
- 2. Prof (Ms.) Anju Singh
- 3. Prof Sachin S Kamble
- 4. Prof. Maddululetty
- 5. Prof Sanjeev Verma
- 6. Prof Rakesh Verma
- 7. Prof Ranjan Chaudhuri

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

#### ASSISTANT PROFESSOR

- 1. Prof (Ms.) Hema Diwan
- 2. Prof Binilkumar A. S.
- 3. Prof (Ms.) Priyanka Verma
- 4. Prof (Ms.) Ruchita Gupta
- 5. Prof Ravindra Shridhar Gokhale
- 6. Prof Rakesh Dulichand Raut
- 7. Prof (Ms) K.S.Ranjani
- 8. Prof (Ms.) Poonam Singh
- 9. Prof Vipul Kumar Singh
- 10. Prof (Ms.) Sushmita N. Aghalaya
- 11. Prof Ajaya Kumar Panda
- 12. Prof (Ms) Kanchan Dilip Joshi
- 13. Prof Mainak Mazumdar
- 14. Prof Debabrata Das
- 15. Prof (Ms) D Jinil Persis.
- 16. Prof. Sumant Kumar Bishwas
- 17. Prof (Ms) Neha Srivastava (on contract)
- 18. Prof Vidyadhar V Gedam (on contract)
- 19. Prof Gaurav Kabra (on contract)

#### **Adjunct Faculty**

- 1. Prof. Shashikant A Kelkar
- 2. Prof. M .D.Agarwal
- Prof Arvind Shriram Patil



### AREA-WISE FACULTY LIST

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

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

#### **Economics and Strategy**

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

#### **Environmental Engineering and Management**

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

#### **Engineering Technology Project Management**

- 1. Prof V B Khanapuri Area Coordinator
- 2. Prof B Koteswara Rao
- 3. Prof (Ms.) Ruchita Gupta
- 4. Prof (Ms) Kanchan Dilip Joshi

#### **Finance & Accounts**

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

# Industrial Engineering and Manufacturing Systems

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

#### Marketing

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



### Organisation Behavior and Human Resource Management

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

### Operations & Supply Chain Management

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



# CONFERENCE / SEMINARS AND AWARDS

SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
1	Prof (Ms.) Seema Unnikrishnan Professor	IAMOT-2019 28th International Conference at Management of Technology	IAMOT-2019	07-04-2019 TO 11-4-2019 NITIE, MUMBAI
2	Prof (Ms) K.S.Ranjani Assistant Professor	TAPMI International Marketing Conference	ТАРМІ	26-04-2019 TO 28-04-2019 Manipal, India
3	Prof Rakesh Verma Associate Professor	Faculty Development Programme on Machine Learing with Business Application	IIM Bangalore	20-05-2019 TO 25-05-2019 Bangalore
4	Prof ( Ms.) Poonam Singh Assistant Professor	28th International Conference on Management of Technology	IAMOT-2019	08-04-2019 TO 10-04-2019 NITIE, MUMBAI
5	Prof (Ms.) Sumi Jha Associate Professor	Training Programme on FDP Machine Learning with Business Application	IIM Bangalore	20-05-2019 TO 25-05-2019 Bangalore
6	Prof Karuna jain Director	2019 POMS Annual Conference Washington DC	POMS	02-05-2019 TO 06-05-2019 USA
7	Prof V B Khanapuri Professor	2019 POMS Annual Conference Washington DC	POMS	02-05-2019 TO 06-05-2019 USA
8	Prof Nikhil Mehta Associate Professor	28th International Conference on Management of Technology	IAMOT-2019	1804-02019 to 19-04-2019 Mumbai
9	Prof Nikhil Mehta Associate Professor	2nd International HR Conference	IBS Bombay	07-04-2019 TO 11-4-2019 NITIE, MUMBAI
9	Prof Sanjeev Verma Associate Professor	28th International Conference on Management of Technology	IAMOT-2019	07-042019 TO 11-04-2019 NITIE, MUMBAI



SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
10	Prof (Ms.) Hema A Date Professor	28th International Conference on Management of Technology	IAMOT-2019	07-04-2019 TO 11-4-2019 NITIE, MUMBAI
11	Prof B Koteswara Rao Associate Professor	28th International Conference on Management of Technology	IAMOT-2019	07-04-2019 TO 11-4-2019 NITIE, MUMBAI
12	Prof Som Sekhar Bhattacharya Associate Professor	12th ELASM workshop on the challenges of Managing the third sector in Norwegian, University of Science and Technology	NTNU	12-06-2019 TO 13-06-2019 Trondheim, Norway
13	Shri Mahesh Kumar Senior Stenographer	Modern Office Management for Executive Secretaries, PA/PS & Office Staff	SIERD	24-06-2019 TO 26-06-2019 GOA
14	Prof (Ms.) Upasna A Agarwal Associate Professor	Certification Course in Talent Management offered by Harrison Assessment	Harrison Assessment	06-06-2019 TO 07-06-2019 MUMBAI
15	Prof (Ms.) Anju Singh Associate Professor	Training Programme "2019 Global Leadership program on the Circular Economy	Australian Federal Government and Green Industries	22-07-2019 TO 26-07-2019 South Australia
16	Shri Hariram Assistant Registrar	Orientation Programme on 18th July, 2019	Ministry of Social Justice and Empowerment	18-07-2019 New Delhi
17	Shri Anand Naidu Manager, Computer Centre	Human Resource Development and Right to Information Act, 2005	Scope Complex, New delhi	09-08-2019 New Delhi
18	Prof Debabrata Das Assistant Professor	POMS 2019 International Conference	Brighton, UK	02-09-2019 to 04-09-2019 Brighton, UK
19	Prof Binilkumar A. S Assistant Professor	2nd Annual Sustainability and Development Conference	Michgan, USA	11-10-2019 to 14-10-2019 Michgan, USA



SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
20	Prof Neeraj Pandey Associate Professor	International Conference on Management systems	Bangkok	29-09-2019 to 30-09-2019 Bangkok
21	Prof (Ms) Kanchan Dilip Joshi Assistant Professor	9th International Symposium on Operations Management and Strategy (ISOMS) 2019	Tokyo, Japan	04-09-2019 to 06-09-2019 Tokyo, Japan
22	Prof Milind M Akarte Professor	2 days CEP Program on "3D Printing"	IIT Bombay	26-08-2019 to 27-08-2019 Mumbai
23	Prof Padmanav Acharya Professor	Asia Oceania Systems Engineering Conference	AOSEC-19	Bangalore
24	Prof Utpal Chattopadhyay Associate Professor	ICMC 2019 - International Conference on Management Cases	ВІМТЕСН	Greater Noida
25	Prof Mainak Mazumdar Assistant Professor	Sustainability and Development Conference	University of Michgan	11-10-2019 to 14-10-2019 Michgan, USA
26	Prof S K Md. Rauf Iqbal Associate Professor	17th International Conference on Humanizing Work and Work Environment	Dr. B R Ambedkar NIT Jalandhar	Jalandhar
27	Prof Shankar Murthy Professor	Urban Air Pollution, Human Exposure Assesment & Public Policy	IIT Madras	07-10-2019 to 17-10-2019 Chennai
28	Prof Gaurav Kabra Assistant Professor	GLOGIFT 2019, an International Conference	IIT, Roorkee	06-12-2019 to 08-12-2019
29	Prof Gaurav Kabra Assistant Professor	XXIII Annual International Conference of The Society of Operations Management (SOM 2019)	IIT, Kanpur	19-12-2019 to 21-12-2019 Kanpur
30	Prof Ajaya Kumar Panda Assistant Professor	1st Annual Capital Markets Conference (CMC)	National Institute of Securities Markets (NISM) Raigad	21-11-2019 to 22-11-2019 Raigad
31	Prof Milind M Akarte Professor	2019 IEEE International Conference on Industrial Engineering and Engineering Management (IEIM 2019)	Macau	15-121-2019 to 18-12-2019 Macau



SR. NO.	NAME AND DESIGNATION	DESCRIPTION	ORGANISED BY	DATE & VENUE
32	Prof KVSS Narayana Rao Professor	5th International Conference on Industrial Engineering (ICIE-2019)	SVNIT, Surat	12-12-2019 to 14-12-2019 Surat
33	Prof (Ms.) Upasna A Agarwal Associate Professor	6th Biennial Conference of the Indian Academy of Management (INDAM 2020)	IIM Tiruchirapalli	02-01-2020 to 04-01-2020 Tiruchirapalli
34	Prof Neeraj Pandey Associate Professor	8th AIMAMA (American Marketing Association) Sheth Foundation Doctoral Consortium	Greater Noida	03-01-2020 to 05-01-2020 Greater Noida
35	Prof Neeraj Pandey Associate Professor	ISB-JM Research Development Workshop	ISB, Hyderabad	11-01-2020 to 12-01-2020 Hyderabad
36	Prof Mainak Mazumdar Assistant Professor	3 day worshop on Data environment Analysis for Performance Evaluation and Benchmarking	South Asian University, New Delhi	12-01-2020 to 14-01-2020 New Delhi
37	Prof Ajaya Kumar Panda Assistant Professor	Changing Landscape of Securities Markets Conference	NISM & SEBI	23-01-2020 to 24-01-2020 Navi Mumbai
38	Prof Shankar Murthy Professor	6th Biennial Conference of the Indian Academy of Management (INDAM 2020)	IIM Tiruchirapalli	02-01-2020 to 04-01-2020 Tiruchirapalli



### RESEARCH AND PUBLICATIONS

#### Research and Publications

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Bhattacharya, A., Srivastava, M., & Verma, S. (2019). Customer experience in online shopping: a structural modeling approach. *Journal of Global Marketing*, *32*(1), 3-16.

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R. Verma, S. Koul and G. Singh, "Intelligent Decision-Making: Using Control Tower at a Logistics Company," 2020 IEEE International Conference on Computing, Power and Communication Technologies (GUCON), Greater Noida, India, 2020, pp. 550-554, DOI: 10.1109/GUCON48875.2020.9231108.

Verma, Rakesh and Koul, Saroj and Prasad, Babli, Expert System – A Case of Indian Railway's Track Maintenance and Renewal Operations (28 March 2020). Proceedings of the International Conference on Innovative Computing & Communications (ICICC) 2020, Available at SSRN: http://dx.doi.org/10.2139/ssrn.3563091 (ELSEVIER).

Saroj Koul; CSN Venkata Datta; Rakesh Verma Car Rentals' Knowledge and Customer Choice, 2020 IEEE Int'I Conference on Emerging Trends in Information Technology and Engineering (ic-ETITE), Vellore, India, 2020, pp. 1-5, DOI: 10.1109/ic-TITE47903.2020.331

Potdar, A., Unnikrishnan, S., and Singh, A. (2019) "A framework for climate change management in organisations: a case for India", World Review of Entrepreneurship, Management and Sustainable Development, Vol. 15, No. 3, pp. 303-334."

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Shrivastava S, Unnikrishnan S., (2020) Life cycle assessment of oil storage unit in India. Int. J. Oil, Gas and Coal Technology, Vol. X, No. Y, xxxx

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Development of simplified WQIs for assessment of spatial and temporal variations of surface water quality in upper Damodar river basin, eastern India; Ravindra Kumar Verma, Shankar Murthy, Rajani Kant Tiwary, Sangeeta Verma, Received: 25 July 2017 / Accepted: 3 January 2019 / Published online: 22 January 2019, Applied Water Science (2019) 9:21 https://doi.org/10.1007/s13201-019-0893-0

Bhagat, S., Gedam, V.V. & Pathak, P. (2020). Adsorption/desorption, Kinetics and Equilibrium Studies for the Uptake of Cu (II) and Zn(II) onto Banana Peel. International Journal of Chemical



Reactor Engineering, Volume 18: Issue 3. doi:10.1515/ijcre-2019-0109 (SCIE, Scopus index, IF-1.15, Publisher-DE GRUYTER)

Ajay H. Dwivedi, Vidyadhar V. Gedam, M. Suresh Kumar (2020), Sustainable hydrogen production from fruit and vegetable waste (FVW) using mixed anaerobic cultures via dark fermentation: kinetic aspects. International Journal of Energy and Environmental Engineering, DOI: https://doi.org/10.1007/s40095-020-00340-6 (ESCI, Scopus indexed, IF-1.87, Publisher-Springer Berlin Heidelberg)

Anju Singh, Rohit Panchal, Mayuri Naik, 2020 Circular economy potential of e-waste collectors, dismantlers, and recyclers of Maharashtra: a case study, Environmental Science and Pollution Research, (2020) 27:22081–22099.

Hemant Bherwani, Anju Singh, Rakesh Kumar, 2020, Review Article on Assessment Methods of Urban Microclimate and its Parameters: A Critical Review to take the Research from Lab to Land, Urban Climate, Manuscript number UCLIM 2020 229 R2.

S. Verma, P. K. Singh, S. K. Mishra, V. P. Singh, V. Singh, A. Singh, 2020, Activation Soil Moisture Accounting (ASMA) for Runoff Estimation using Soil Conservation Service Curve Number (SCS-CN) Method, Journal of Hydrology, Volume 589, October 2020, 125114.

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evaluation of municipal wastewater treatment plants in India: a life cycle approach Water. Sci Technol (2019) Water Sci Technol (2019) 79 (6): 1102-1112.

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Kamble, S. J., and Singh, A, 2019, Recent Advances in Life Cycle Assessment and Municipal Wastewater Treatment: A Review and Agenda for Future Research, Journal of Environmental Sciences

Dalvi, M., Singh, A., and Gosavi, M, 2019, Business sustainability-an automobile industry perspective, EPRA international journal of economic and business review -peer reviewed journal, Volume: 7 ISSUE: 2

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Dalvi, M., Singh, A., Rambabu, P., and Murthy, N.N., 2019, Business Sustainability - A Study of



Most Sustainable Corporations Environmental Management and Sustainable Development, Environmental Management and Sustainable Development, ISSN 2164-7682 2019, Vol. 8, No. 2

Bhattacharya S S and Atre S , (2020) Additive Manufacturing Technology; realities and strategic perspectives from India", International Journal of Asian Business and Information Management (IJABIM), Vol. 11, Issue 1 , pp-1-20.

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As a Centre Coordinator for Global Competitiveness of MSMEs organized a workshop on "Digitization of MSMEs: opportunities and Challenges, at NITIE on 02nd March 2019 (SIDBI sponsored Rs. 1, 00,000 for the event).



As a Centre Coordinator of The Centre for Global Competitiveness organized training on the Udyamimitra portal of SIDBI, provided to MSMEs and students attended the workshop on 02nd March 2019.

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# STUDENT AFFAIRS AND ACTIVITIES



Annual Report 2019-20





### STUDENT AFFAIRS AND ACTIVITIES

- ABHISANSKARAN-2019 (June 10, 2019) -ABHISANSKARAN (orientation) was organised to introduce the new batches to the NITIE culture and officially marked the beginning of their two-year journey. The event started with a welcome address by Prof. (Ms) Karauna Jain, Director, NITIE and by all the Deans. Director, NITIE congratulated all the students and wished them success. Prof. (Ms) Hema Date, Dean (Student Affairs) shared NITIE way of life with students. Dean Academics, Prof. P Acharya made students aware of the different courses offered at NITIE and the importance of these courses with respect to the industry. Faculty members conducted the sessions to induce the students and acclimate them to the heritage, vision and culture of teh Institute. Their narratives on instituional achievements encouraged the students to think towards their potential contribution in the overall growth of NITIE.
- 2. **Tarang (Alumni Interaction) (August 04, 2019)**: Mr. Saurabh Shankar, 2005 NITIE Alumnus and founder of Stealth Mode (Fintech Startup) took the Finance session and educated the students about various work roles in the Financial sector.





Mr. Varun Udeshi, 2013 NITIE Alumnus, senior engagement lead in Oliver Wymen visited the campus to guide the Junior Batch on how to solve consultancy cases.







Mr. Bharath Katta (Senior Marketing Manager, Yes Bank) and Mr. Dinesh Valiramani (Senior Manager - Retail Marketing, Yes Bank), both 2016 NITIE Alumni visited the campus to guide the students about marketing as a career after MBA.

Mr. Shirish Janai, a 2005 NITIE Mumbai Alumnus, senior manager supply chain – Asian Paints educated the junior batch about the supply chain planning process.

 Independence day Marathon (August 15, 2019): On the occasion of 73rd Independence Day, the Sports Committee organised a





campus marathon. It began with an inauguration ceremony by Prof. Hema Date, Dean, Student Affairs. This year the marathon had **12 different categories**. The distance to be covered in the marathon was of **one lap** for boys & girls (under 5 & 10 years), **five laps** for boys, **three laps** for girls and one lap for faculty & staff members. At the end of the run, all the participants were provided with refreshments.

**Top 3 winners** from each category were awarded medals and certificates by the hands of honourable Director in the valedictory function that followed the flag hoisting ceremony in the NITIE campus.







4. Entrepreneurship Workshop (September 21, 2019 to September 22, 2019): A two-day workshop was conducted by Mr. Nikhil Kulkarni, founder of Darwin Tech and also an alumnus of the 2006 batch of the PGDIM program.

The session was divided into two parts – one a lecture on "Entrepreneurship as a career option for MBAs" which was open to all followed by a workshop exclusively targeted at the budding entrepreneurs of the institute. A total of 10 students participated in the workshop.



Zest- An Intra-College Sporting Event (27th – 29th September, 2019) : ZEST was organised to select college team of various games which represent NITIE in JOSH 2019 & various other Inter B-School Tournaments. Various events were conducted:-



- 1. Futsal
- 2. Cricket
- 3. Basketball (Men's & Women's)
- 4. Chess
- 5. Carrom
- 6. Volleyball
- 7. Table Tennis
- 8. Lawn Tennis







We witnessed the participation from teams of every section of PGP-1st year & PGP-2nd year in all 8 sports. This year, VLFM & FPM were the new entrants to the event.

# 6. AVARTAN-2019 (October 12, 2019 – October 18, 2019) :

AVARTAN refers to a rhythmic cycle of Indian music. Chosen as the name for the grand unification, it captures the essence of various events coming together in harmony to create a symphony that befits NITIE.



AVARTAN an annual Fest is an umbrella event that amalgamates of Lakshya, Prerana, Empressaio, with the cultural festival - Josh and Arohan. The highlights of the AVARTAN 2019 were as follows:-

i) Lakshya Business Visionary Awards- In Avartan, the fraternities of NITIE felicitate business leaders with the 'Lakshya Business Visionary Award'. These awards were given in recognition and appreciation of achievements, to those industry leaders, who have emerged winners due to their exemplary vision and extraordinary leadership. This year Dr. Srivastava, Director felicitated Mr. S. P. Oswal (Chairman and Managing Director of the Vardhman Group) with the "Lakshya Business Visionary Award 2019".



ii) LakshyaSM Industrial Engineering Conclave- The LakshyaSM Industrial Engineering Conclave provides an annual platform to exchange ideas and collaborate on the impact of market dynamics and new technologies for current and future industrial engineering leaders. Eminent speakers from various backgrounds spoke on the topic: "The Wave of Productivity Driven by Data Analytics"

The esteemed dignitaries for the Lakshya Industrial Engineering Conclave 2019 were:

- **1. Mr. Hemant Narvekar**, Head-Manufacturing Switchgear factory, Siemens Ltd.
- Mr. Tanmay Agarwal, Vice President & Head
   Business Shared Services at Hindustan
   Coca-Cola Beverages Pvt Ltd.
- **3. Mr. Saikat Chakraborty**, Vice President-Retail Analytics, Accenture
- iii) LakshyaSM Supply Chain Management Conclave- The LakshyaSM Supply Chain Conclave brought together globally renowned thinkers, achievers, and change-makers.





Focused on Supply Chain, the event brought in a valuable learning experience for young budding managers and decision-makers from various industries. This event has brought the best minds of the supply chain from different industries. Focused on Supply Chain, the event brought in the valuable learning experience for young budding managers, decision-makers from various industries, and students. The topic of the supply chain conclave management was "Leveraging Disruptive technologies for Supply Chain **4.0**". The esteemed dignitaries for the Lakshya Supply Chain Management conclave were:

- **1. Mr. Alagu Balaraman**, Partner & Managing Director, CGN Global.
- **2. Mr. Dheeraj Shah**, Global Head Supply Chain Management Retail Business Group, Tata Consultancy Services.
- **3. Mr. Hardeep Singh**, Chief Executive Officer, 7-Eleven India.
- **4. Mr. Nandkumar Kulkarni**, Director-Integrated Supply Chain, Mondelez India Foods Private Limited.

iv) LakshyaSM Manufacturing Conclave- The LakshyaSM Manufacturing Conclave brought together globally renowned thinkers, achievers and change-makers on a common platform to exchange ideas and collaborate on the impact of market dynamics and new technologies for current and future manufacturing leaders. This year the conclave was focused on manufacturing, this conclave brought in a valuable learning experience for young budding managers and decision makers from various industries. The conference delivered an indepth look at possible opportunities within different industries. The topic of the conclave was "Smart Factories- The rise of the digital supply network"





The distinguished speakers for the LakshyaSM Manufacturing conclave were:

- **1. Mr. Amol Nagar**, Director Manufacturing Operations & Supply Chain, GE Aviation.
- **2. Mr. Anil Kumar**, Head Manufacturing IT & Automation, Cipla.
- **3. Mr. Anirban Saha**, Head EHV Transformer & Reactor Business, CG Power and Industrial Solutions Limited.
- **4. Mr. N C Chakrabarti**, Head Smart Manufacturing, Reliance Industries Limited.
- **5. Mr. Vinod Padmanabhan**, Director Manufacturing Operations, Raymond
- was an ideal platform for budding & practising managers to present their innovative and path-breaking projects. The projects were judged by an elite jury panel consisting of industry stalwarts (VPs & MDs of top-notch firms). It is a confluence of best practices, technological advancements, their implementations and impact on the industry and equips the budding managers with the latest trends and advancements. Lakshya 2019 "On the Job Achievers' Contest" had participation from corporate sector across four well-defined verticals:
  - 1. Supply Chain Management
  - 2. Operations Management
  - 3. Systems & IT Management
  - 4. Industrial Engineering

Some of the organisations that participated in the event were Apollo Tyres Ltd., Mahindra Logistics Ltd., Ashok Leyland, Beiersdorf India, Sun Pharma, Hindustan Aeronautics Ltd., etc. The Jury for the above events was as follows:

- **1. Mr. Deepak Bankapur**, Operations Leader- Supply chain, Becton Dickinson
- **2. Mr. Pankaj Kapoor, Head** New Product development, Marico Ltd.
- **3. Mr. Vaibhav Agrawal**, Head- Customer service & Logistics, Fonterra Fortune
- **4. Mr. Somnath Das**, Director Supply chain, Beiersdorf (Nivea) India
- **5. Mr. Pankaj Agrawal**, VP- Operational Excellence, Lupin Ltd.
- **6. Ms. Poonam Bareja**, GM- Strategy & Deployment, Johnson & Johnson
- **7. Mr. Akshay Shrawge**, GM Sourcing, Parekhplast Limited
- **8. Mr. Venugopala Rao Banki**, VP Organisational design & Productivity Improvement, ACC Limited
- **9. Mr. Abhay Chidri**, CEO & Partner, Discover India packaging
- 10. **Mr. Khatib Rehman**, GM- Supply chain, Yokohama Tire corporation (ATG)
- 11. **Mr. Govindamani Krishnan**, Consultant, Self-Employed
- 12. **Ms. Shaveta Wadhera Jain**, Chief Information Officer(CIO), General Electric
- 13. **Mr. Krishna Tewari**, Executive Director, Lumina Datamatics Ltd.
- vi) Testimonials In this 20th edition of the event, we witnessed corporates visiting from various organisations & different sectors. This year team Lakshya put forwarded a novel initiative of making testimonial videos of juries and participants in association with Team TDX.

Participants shared their views about their experience of the event, suggestions, and encouraged the organisers to improvise future editions of Lakshya in a much bigger and







better way. The testimonials not only helped making memories but acted as medium for promotion of Avartan and NITIE as a brand.

vii) Power Talks- Under the umbrella of LakshyaSM, Power Talks was a candid Gyan

session to enlighten the ignited young managerial minds in the institute. This year, **Mr Vikas Dimri**, an Everester and Endurance athlete by passion, a banker by profession and also the founder of the Happy Feet program, graced the event. He shared his words of wisdom and enlightened everyone present with his inspiring experience and knowledge.

viii) AROHAN 2019











Arohan - The Annual Cultural Festival of NITIE Mumbai, entails three-day dance, music, drama and non-stop fun. Events range from poetry slam to plays, pop to rock shows, and fusion to fashion shows. All of these events were graced by famous professionals of the respective fields, as judges.

#### ix) 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. Over the years, leaders have shared their philosophies and success mantras with the industry and academia.

RERANA BUSINES





During Prerana Business Meet, NITIE hosted three brilliant minds of the industry, for Prerana Business Meet, 2019: Prof. D K Srivastava, Offg. Director, welcomed the speakers and shared his views on synthesizing global value chain.

**Mr. Arvind Mathur**, Chief Executive Officer, Raymond UCO Denim

**Mr. Madan R. Krishnan**, Vice President & Managing Director, Medtronic

**Mr. Praveer Sinha**, Chief Executive Officer & Managing Director, Tata Power

#### x) Summer Project Contest

In the Summer Project Contest (SPC) lies the genesis of Prerana. The event provided a platform for second year management students to showcase their summer projects and shared their internship experiences. Their presentations were scrutinised and judged by an elite panel of judges from the Industry and faculty from NITIE. This year the event saw the presence of students from Top management





schools presenting their internship experiences and project details to students and elite industry panelists. SPC comprised of three modules.

- 1. Operations/SCM
- 2. Marketing
- 3. Human Resources

#### XI) Prerana Decibelz

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. The trailblazers from the world of performing arts and cinema showcases their performance, music legends like Shankar-Ehsaan-Loy, Sona Mahapatra, Anushka Manchanda, Indian Oceans, Euphoria, Terrazak and other big names have performed in the past, Decibelz promises to be a night full of excitement and ecstasy. This year, Decibelz witnessed the widely acclaimed and renowned Indian music artist, **Ritviz**, mesmerise the crowd with his music.

#### XII) Cita-De-La Prerana

It is an event where celebrities put forth a canvas of their colorful (and indeed successful) life stories to the audience. This year, we were blessed to have with us **Mr. Darshan** 





Jariwalla, Padma Shri Manoj Joshi, Ms. Sonali Kulkarni and Ms. Sheeba Chadha. The diverse experiences shared by the dignitaries inspired the audience to follow their passion.

#### XIII) NITIE Finance Conclave

STREET, the Finance Forum in association with Avartan 2019 had successfully organized the Annual Flagship event 'NITIE Finance Conclave' as a part of Avartan on 17th October 2019. The Conclave provided a platform , an unparalleled opportunity, for interaction





between Academia and Leaders of Finance Industry and discuss some of the contemporary topics.

The theme for this year's panel discussion was "Balancing fiscal deficit and the Economic growth of India"

We had the privilege of having the following distinguished Guests:

- Mr. Sarang Bhutada- Director, CRISIL Limited
- Mr. Anand S- Director and CFO, De Lage Landen (DLL) Financial Services
- **Mr. Chandru Badrinarayanan** Managing Partner-, Ecube Investment Advisors
- Mr. Sandeep Mantri- VP & CFO, Datamatics Global Services Limited
- **Mr. Sunil K Pandey** Director, Arth Vritt Capital LLP
- Prof. Utpal Chattopadhyay- Associate Professor, Economics and Strategy-NITIE Mumbai

**XIV)** Josh 2019 - JOSH, the annual Sports Festival of NITIE was organized from 12th -14th October 2019. JOSH is one of the largest sports festivals among the B-schools in the country. This year, JOSH witnessed participation from around 400 students representing IIMs, IITs, SP Jain and other premier B Schools.











JOSH has been promoted by eminent sporting personalities every year. This year JOSH was inaugurated by the Fastest 1000 run scorer in international cricket, **Mr. Vinod Kambli**. The students gathered in huge number to welcome the guest and were highly motivated by his inspirational words. Mr. Vinod Kambli spoke about the importance of Dream, Discipline and Dedication in the lives of humans.



#### XV) Empresario Entrepreneurship Awards

Empresario Entrepreneurship Award is a salute to leaders who have set exemplary standards, inspired all with their ideas, beliefs, persistence, and unparalleled businesses acumen. In a spirit of acknowledging entrepreneurss capabilities of innovating, introducing new technologies, generating new products and services. Empressario bestows the "Most Inspiring Entrepreneur of the Year" Award. The recipient of the award, Swapnil Jain left the audience with a unique perspective of his experience and challenges.

"I was able to succeed because I never knew the challenges were too big for me to solve alone." - Swapnil Jain (Founder - Ather Energy).

#### XVI) MSME Entrepreneurship Conclave

E-Cell NITIE, Mumbai successfully organised the MSME Entrepreneurship Conclave in collaboration with Center for Global Competitiveness of MSMEs (CGCM) on 18th October 2019 as part of NITIE's annual mega event Avartan.

Topic for this year's panel discussion was "Fintech reinventing MSMEs in India".

We were honoured to have below guests as our panelists:

- Mr. Vinod Kumar, President India SME Forum
- Mr. Nelson D'Souza, CFO Origa Leasing





- Mr. Ashish Patel, Partner, Plasma Engineering
- **Dr. Vinish Kathuria**, Professor, IIT Bombay

#### XVII) Other Events in AVARTAN 2019

**My Story** 

Navkriti

**Brain Child** 

**Freshers Evening** 

Headbangerz

Sparsh

Lakshawiz

On the Job Achiever's contest

Strategem

**Enpower** 

Vivad

**NITIE Youth Parliament** 

**Proicere** 

Beat the Street

7. SPICMACAY Folk music concert by Shri Nandesh Umap (12 Nov 2019)- NITIE chapter of the Society for the promotion of Indian

Classical Music and Culture among youth organized a folk music concert by Shri Nandesh Umap, Marathi Folk singer on 12 November 2019.







8. Athletic meet (24 & 25 January 2020)
Sports Committee, NITIE conducted an Athletics Meet in the campus for all the students on the 24th and 25th of January 2020. The event was conducted for the second time in NITIE and saw active participation from students and fellows.



The meet comprised of 12 activities:

1.	Sprint (100m) - Male
2.	Sprint (100m) - Female
3.	Sprint (200m) - Male
4.	Sprint (200m) – Female
5.	Sprint (400m) - Male
6.	Relay (4*100m) – 4M
7.	Relay (4*100m) - 3M+1F
8.	Shotput - Male
9.	Shotput - Female
10.	Javelin Throw - Male
11.	Discus Throw - Male
12.	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.

9. Lohri (13 Jan 2020) The Cultural Committee, NITIE organized and celebrated Lohri festival on 13th January, 2020. The ancient significance of the festival is both as a winter crop season celebration and a remembrance of the Sun deity. Lohri songs mention the







Indian Sun God asking for heat and thanking him for his return. The crowd gathering and batch's response on this auspicious festival was overwhelming. We indeed had a great time dancing around the bonfire. 10. Republic day Celebration (26 January 2020) On the occasion of 71st Republic Day, the Sports Committee in NITIE arranged a campus marathon to celebrate zeal and patriotism. The Marathon was organized on









the morning of **Republic Day** in NITIE campus and had an active participation by the faculty, students and staff members. It began with an inauguration ceremony by Prof. Hema Date, Dean, Student Affairs. This year saw **9 different categories in the Marathon**. Republic day witnessed quite a large participation (Around 100+) for the 3.5km run and turned out to be a successful celebration filled with patriotism and energy.

On the auspicious morning of the 26th January, 2020, NITIE celebrated the 71st Republic Day in the college premises. It was a matter of great pride for all of us. The lawns were decked up in tricolour balloons, ribbons and flowers. Paper Flags and badges were distributed amongst all present there, followed by the National Anthem. Following that, Dean Student Affairs, Dean Academics, Professors,







students, teaching and non-teaching staff recited the Preamble of the Constitution of India. Cultural performances by the students, where patriotic songs like "Vande Mataram", were sung and enjoyed by the applauding crowd. The Prize Distribution ceremony, honouring the winners of the Athletics Meet and Marathon, followed the performances. The program ended with the message to create a great Nation through collective efforts from all individuals.

11. **BOARDROOM DISCUSSION (05/02/2020)**Samiksha organized a boardroom discussion on "**Uber Eats acquisition by Zomato**" on **05/02/2020**. Through this discussion, participants tried to emulate the actual discussion that would have taken place among the Board of Directors of Zomato. Different





domains of Operations, Marketing, Strategy, Finance, and HR were represented by different students, and the deal was analyzed by considering the present market scenario, different implications on the food-tech sector and its prospects for the future. It helped the participants and audience to visualize the deal comprehensively. Board room members comprised of students Kaustubh Kulkarni, Shubham Jain, Anmol Tamrakar, Shubham Mallik. Anshul Suryavanshi, Manas Rupainwar, and Himansu Sekhar Satapathy.

Post the boardroom discussion- an online quiz was conducted that involved participation from all boardroom members and students from the audience. The Quiz comprised of questions related to much talked about Mergers and Acquisitions in different industries at that time. Top 3 winners- were awarded e-certificates.

- 12. **B-Cube** (**09 Feb 2020**) Team Impact (Admission Committee) organized the 11th edition of B-Cube on 09 Feb 2020 in collaboration with Career Anna and Bolo Indya. Meant to impart skills imperative to crack the B-school interviews and experience the B-school life for a day, the event saw active participation from candidates with diverse domains of Industries. Opening with remarks from Prof Anju Singh, Professor-in-Charge, Admission Committee, the event continued with addresses from Prof Manoj Kumar Tiwari, Director, NITIE, Prof Hema Date, Dean,
- 13. **Ataria Jam 2020 (12 Feb 2020)** The senior students have always guided the Junior Batches through difficult time of SIP. They have been the ray of hope in a dark cave, and nothing less than elder brothers and sisters. To celebrate this special bond between Juniors and Seniors, Cultural committee, NITIE organized "Ataria Jam" on 12th Feb, 2020.







This event was a tribute to passing out senior students and seniors reciprocated beautifully by participating in full swing. We received enthusiastic participation from juniors and seniors. The night was full of music, poems, dance, laughter and tears of joy. That's how we bid our farewell to seniors.



**14. NITIE Premier League- 10.0 (15 Feb - 22 Feb 2020)** The month long cricketing extravaganza kicked off with the inter section cricket tournament, CRICKSHETRA, where the players got a chance not only to defend the pride of their respective sections, but also to showcase their talents on the field prior to the auctions. CRICKSHETRA was conducted from 30th Jan to 2nd February 2019 and it was Fellow student's team who emerged the winners in a tightly fought final against **Section F Senior**.





**TEAM & PLAYER AUCTIONS** Post the exciting event CRICKSHETRA , NPL extravaganza moved onto auctions in grand style, with the team auctions happening first on 6th 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.

OPENING CEREMONY All eyes moved to the New Auditorium on 15th February 2020 for the opening ceremony and inaugural ceremony of NPL 10.0 and to mark this occasion one of the eminent cricket personality Mr. Sandeep Patil inaugurated the event. In his speech Mr. Patil addressed the student gathering regarding how to maintain focus and passion towards achieving their goal. He shared an many inspiring instances of his cricket career with the audience.

He also shared interested dressing room stories which reflected how team bonding and people management is important in an individual life. At the function, the NPL trophy was unveiled and the captains of all six team Participating in tournament with great anticipation, all the members and owners flocked to the venue to witness the inauguration. Prof. Manoj Kumar Tiwari, Director, NITIE extended a heartfelt thanks to Mr. Patil for gracing the occasion and motivating the student. Mr. Patil ensured that he would be giving all his support to NITIE regarding sports in future.







**RESULTS** The top 4 teams that qualified for the playoffs were: Siachen Soldiers, Mumbai Marathas, North Central United & Royal Ayodhya XI. The playoff saw some intense matches after which Siachen Soldiers & Royal Ayodhya XI made it to the finals.

The final was one for the ages. Royal Ayodhya XI posted a competitive total. Chased quite well in the tournament with one of the opening batsman Hari Shankar hitting century &



remaining not out at 118 of 38 balls. The crowd were in awe of such hitting from the Siachen Soldiers batsman. The winning team **Siachen Soldiers** was awarded with the cash prize of Rs. 85,000 and runner-up Royal Ayodhya XI with an amount of Rs. 70,000 and total cash prize amounted to **Rs. 2.25 lakhs**. This provided a befitting end to such a grand event.





# 15. Enactus (15 February 2020) Mentorship workshop on social entrepreneurship and innovation.

Enactus NITIE organized Social Incubation Workshop at NITIE in association with Enactus India on 15 February 2020. It was attended by 70 students of Enactus community from 10 Business Schoolsand Engineering colleges across West region of India. Sessions were conducted by Prof Devdip Purkayastha (President. Enactus India and Adjuct Professor, IIT Bombay), Prof Raj Jaswa (Serial Entrepreneur and Visiting Professir, IIT Bombay) and Ms Shmita Ramkumar (Vice President and Chief Programme officer, Enactus India). They guided the students on how to create a social venture with valuable insights on social entrepreneurship and how to scale the projects to become a flourishing business.

Prof VB Khanapuri, Professor and Dean(SRIC), NITIE welcomed the Enactus India Team and interacted with the students teams during the proceedings of day and provided insights to the teams on their respective projects.

- 16. SAMIKSHA (22 Feb 2020) PANEL DISCUSSION Samiksha organized a panel discussion on 22/02/2020 on the topic "Supply Chain 4.0 Overcoming challenges in supply chain digitization". The event was graced by Prof. Manoj Kumar Tiwari, Director and moderated by Prof Ashok Pundir, Professor Operations Area. The event was graced by the presence of following esteemed panelists:
  - 1. Mr. Akash Srivastava, Partner, Deloitte India
  - 2. Dr. Rakesh Paras Singh, Chairman, Institute of Supply Chain Management
  - 3. Mr. Venkatesh Seshadri, Head- Supply Chain Consulting, Confederation of Indian Industry
  - 4. Mr. Murugan Pugalenthi, Director, J&J Consumer
  - 5. Mr. Ranjan Sharma, CIO, Head SCM BestSeller India
  - 6. Mr. Raghavan Santhanam, Ex- Country Head, Standard Chartered Bank







The event was guided by Prof. Sachin Kamble, Professor in Charge, Samiksha, Associate Professor of Operations and Supply Chain, and was marked by the presence of **Prof.**Hema Date, Dean Student Affairs and Prof. Padmanav Acharya, Dean Academics. Prof. Manoj Kumar Tiwari, Director delivered a keynote address highlighting the importance of digital transformation, major challenges, and opportunities for different sectors.

- 17. Marksfest (23 Feb 2020) Marketing Interest Group, MIG at NITIE organized its corporate Panel discusion on `Levering Customer Experience Through Mar Tech". The event was graced by Prof Hema Date, Dean, Student Affairs. She addressed the students with a keynote highlighting the importance of Technology in marketing. The other esteemed panelist were:-
  - 1. Mr Vishnu Subhash, Director PwC
  - 2. Dr Kushal Sanghavi, Business Head, Reliance Entertainment and Digital
  - 3. Ms Jacqueline P Mundkur, Sr Advisor and Customer Engagement, Transaction Square
  - 4. Mr Shiv Tiwary, Chief Marketying Officer, Reliance Nippon Life Insurance
  - 5. Mr Nikhil S Gurjar, President, Consulting Connoisseurs

- 6. Mr Sharjeel Siddiqui, Chief Marketing Officer, Netsoftmate
- 7. Prof Neeraj Pandey, Associate Professor, NITIE, Marketing Management

Mark-Sense: Live Case Study Competition: This Marketing Case Study Competition was based on live challenges faced by industries. It aimed at testing the ability of participants to apply the marketing concepts to practical situations through an exhaustive business case, students provided solutions to the problems currently faced by company/industry. Competition was open to all B-school students and consisted of 2 Rounds.

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.

18. SAMIKSHA (29 Feb 2020) Samiksha organized a panel discussion on 29/02/2020 on the topic "Shift to a Circular Economy: A changing view on value creation in the supply chains". The event marked the presence of Prof. Manoj Kumar Tiwari, Director, NITIE and moderated by Prof Ashok Pundir, Professor and Former Dean Student Affairs, NITIE. The event was graced by the presence of following esteemed panelists:







- Dr. Rakesh Sinha, Founder and CEO, Reflexive Supply Chain Solutions
- 2. Mr. Balaji Reddipalli, Group Head Supply Chain and IT, Borosil Group
- 3. Mr. Ponraj Periswami, Head SCM, Wahl Clipper Corporation
- 4. Mr. Ashish Bansal, Head India Procurement, Colgate-Palmolive India Ltd.
- Mr. Umesh Madhyan, AVP-SC Strategy & Transformation, HCCB

#### Launch of Newsletter and Pharma Sector Analysis

Samiksha launched its newsletter and sectoral analysis of the pharma industry post the panel discussion. The newsletter 2020 by Samiksha provides insights from different industry verticals about essential supply chain management components, emerging trends, strategies and new practices being adopted via/thorough analysis of Pharma Sector industries 2020. Samiksha tried to delve deeper into the nitty-gritties of its supply chain, the vision of market leaders and what prospects the sector holds for the future.

The event was then addressed by Prof. Manoj Tiwari, Director, NITIE. He delivered a keynote address where he shared his notions about the need for collaborative approaches and new business opportunities while adopting a circular economic framework.

The event was guided by Prof. Sachin Kamble, Professor in Charge, Samiksha, Associate Professor of operations and supply chain, NITIE and was attended by Prof. Hema Date, Dean Student Affairs.

19. Post budget Analysis (28 February 2020)
Team Street, The Finance Forum of NITIE, organised the 6th edition of "Post Budget Analysis" on 28th February 2020. The event provided an opportunity for students to gain meaningful and practical insights about the Union Budget for the fiscal year 2020-2021, along with the prospect of interacting with senior executives from the finance domain. This year, we hosted the following as our esteemed Speakers:







- Sachchidananda Shukla. (i). **Dr.** Chief Economist. Mahindra Group: Chairperson of Banking, Finance and Economic Activity of the of Chambers Commerce and Industry(BCCI); Member in Panel of Economists, NITI Aayog; Member of ASSOCHAM Shadow Monetary Policy Committee.
- (ii). **Mr. Mayur R. Dwivedi**, Executive Vice President and Head of Strategy at Religare Group, Former Senior President and Head of Corporate Banking, Yes Bank,
- (iii). **Mr. Hersh Shah**, SIRM, Promoter and CEO of Gleco, India Affiliate Partner of Institute of Risk Management, UK, Member of Institute of Chartered Accountants, Founder and Former Head of TIVikas a micro-finance NBFC at The Investment Trust of India.
- (iv). **Mr. Ashok Vashisht**, Finance Controller/
  Regional CFO at Essel Propack Limited,
  Global Finance Professional Fellow
  Member, Chartered Institute of
  Management Accountants, Fellow
  Member, Institute of Cost Accountants of
  India, Fellow Member, CPA Australia.

The Panel Discussion was led by **Dr. Aditi Chaubal**, Associate Professor of Economics, IIT Bombay. The event was also graced by the presence of Professor Hema Date, Dean Student Affairs and Professor Mainak Mazumdar. Asst. Professor of Economics.

20. Farewell to 2018-20 Batch (03 March 2020)

The end of a term marked a very important stage in the lives of postgraduates who stepped into NITIE two years ago with a dream to achieve and explore their potentials. NITIE bid a warm farewell to the final year 2018-2020 batches. The farewell was organized by cultural committee for the outgoing 2018-2020







batch on March 3, 2020. A colourful event and moments to relive the good memories they had of the time spent with their companions and teachers at NITIE. A rocking performance from renowned band was organized followed by a video compiling old memories of the seniors at NITIE, gifts and great food were all the ingredients of the farewell.





- 21. NITIE Futsal Championship (02 March to 6th March 2020) The Sports Committee in NITIE organized NITIE Futsal Championship in the campus from 2nd to 6th of March 2020. This year, NFC launched its second edition. The conduction of NFC 2.0 had following objectives:
  - 1. To portray and encourage football talent of students.
  - 2. To enhance comprehension among students regarding applications of managerial skills.
  - 3. To build harmony and cooperation among student community.

This year, 6 teams participated in NFC. A team could be owned by maximum 1 playing and 2 non-playing owners. The 6 teams that were registered under NFC 2.0 were –





- 1. Northern Knights FC
- 2. Kerala Tuskers FC
- 3. Madras Mariyans
- 4. Jaipur Jaguars
- 5. Wasseypur FC
- 6. **8FC** बम्बई

The winning team and runners up were awarded with cash prizes and a trophy at the closing ceremony held at the Sports Ground by the hands of Prof. Rauf Iqbal.

**22.** Sustainability & You (Safety Week- 02 March 2020) On the eve of Safety Week, SAY has organized a Corporate Panel Discussion. The discussion was themed on the topic of: Sustainability Reporting

Following were the Industry Leaders, who enlightened the minds of students and grace this event with their presence:

Ashwini Mavinkurve, Sr. Manager Corporate Sustainability, TATA Motors

Richa Pant, CSR and Sustainability Head, L&T Finances

Ruchi Birla, Principal EHS Specialist, Medtronic

Priyanka Mathur, Lead, Corporate Reporting Consortium, CII-ITC Centre of Excellence for Sustainable Development.



The discussion was moderated by **Ms. Ruchi Birla**, an **Alumnus of NITIE (ISEM-09)**. The session has provided a brief overview on the intricacies of Sustainability Reporting, and it's growing significance aligned with the current Organizational and Consumer needs.

23. Mantrana 9.0 (Consul' Live) - NITIE Students' Consulting Club conducted its annual event Mantrana 9.0 which had CONSUL'LIVE - Case study competition as one of its events. This time case was provided by WebXpress 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 120+ teams from top B-Schools of India. All the registered teams had access to the case. Registered teams had to provide their solution to the given case study bv WebXpress in **PowerPoint** presentation format. The last round was held on 6th March 2020 which saw 6 teams from NITIE, IIM K, NMIMS, SJMSOM and JBIMS competing in front of our esteemed jury members, Dr. Ranjan Chaudhuri - NITIE, Mr. Akshay Sawant, Head - Projects, Mr. Shams Nagaonkar, Head - Projects, Mr. Rahul Malkani, Design Head - Platforms from WebXpress. The joint winners of CONSUL'LIVE. 2020 were Black Mamba (NITIE Mumbai) and Team Ruhani (IIM K).





### **PLACEMENT**

#### **Summer Internship**

Total of 491 students out of 491 students of PGDIE, PGDIM, PGDISEM, PGDMM & PGDPM (Class of 2021) have been placed in 134 organizations across the country for 8-weeks Summer Internship from 27 March 2020 to 03 June 2020. However, due to COVID-19 pandemic situation and extended lockdown period total of 05 recruiter have cancelled their offer of summer Internship. The affected 15 students were being offered from other recruiters and also the Institute projects have been offered to them. Also, the Internship period was then extended upto 28 June 2020.

#### **Final Placements**

In the mission of creating tomorrow's leaders for the country, we at NITIE are extremely focused on providing quality education alongwith developing overall personality of our students. The aim is to create well balanced individuals who would be the change agents of future yet carry forward the legacy of NITIE. Over the years, our rich blend of students has managed to excel in the industry and this belief has been reinforced by the consistent faith of recruiters in offering our students diverse and key roles in their organisation.

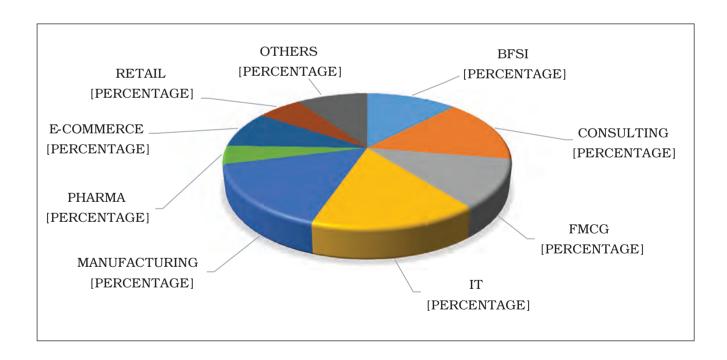
REPORT ON FINAL PLACEMENTS OF PG DIPLOMA IN INDUSTRIAL ENGINEERING (PGDIE-48), INDUSTRIAL MANAGEMENT (PGDIM-25), INDUSTRIAL SAFETY & ENVIRONMENTAL MANAGEMENT (PGDISEM - 18), POST GRADUATE DIPLOMA IN MANUFACTURING MANAGEMENT (PGDMM-05) AND PROJECT MANAGEMENT (PGDPM -05) BATCHES - YEAR 2019-20

	Particulars	Year : 2019-20					
1	No of companies	125					
2	No of students placed	PGDIE	PGDIM	PGDISEM	PGDMM	PGDPM	Total
	PPO	35	83	3	6	3	130
	LRP	17	90	6	1	4	118
	CRP	50	62	5	21	14	152
	Domestic	102	235	14	28	21	400
	Foreign	5	4	0	0	0	9
	Total Placed	107	239	14	28	21	409
3	No of students yet to be placed	0	0	0	0	0	0
4	No. of Students opted for DPP	0	0	0	0	0	0
5	No of students opted out of placements	0	3	1	0	1	5
6	Total number of students in the batch	107	242	15	28	22	414



#### 2. Sector-wise Placements of Students (2018-2020 Batch)

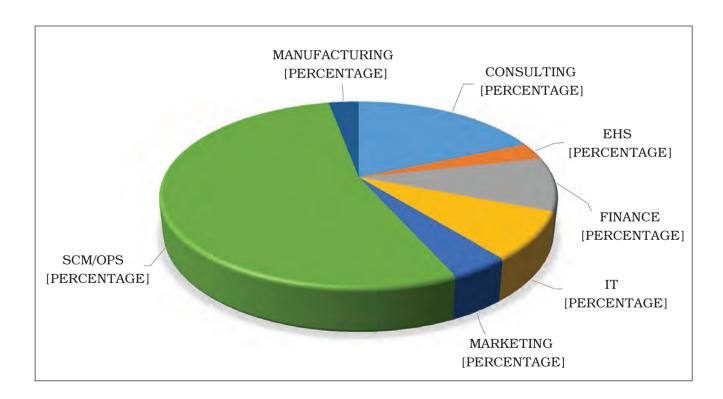
Sector	PGDIE	PGDIM	PGDISEM	PGDMM	PGDPM	Total
Banking and Finance	9	36	0	2	3	50
Consulting	14	45	2	1	1	63
FMCG	21	26	1	0	0	48
IT	15	36	2	9	3	65
Manufacturing / Process	25	26	4	7	3	65
Pharma	0	13	1	3	1	18
E-commerce	4	28	0	0	4	36
Retail	9	9	1	4	2	25
Others	10	20	3	2	4	39
Total	107	239	14	28	21	409





#### 3. Function wise Placements of Students (2018-2020 Batch)

Function	IE	IM	ISEM	MM	PM	Total
Consulting	14	57	0	3	2	76
ЕНЅ	0	0	12	0	0	12
Finance	5	29	0	1	3	38
IT & ITES	3	26	0	4	1	34
Sales & Marketing	7	8	0	1	1	17
Supply Chain / Operations	75	115	2	16	12	220
Manufacturing	3	4	0	3	2	12
Total	107	239	14	28	21	409





# PHYSICAL FACILITIES AND INFRASTRUCTURE



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## **ESTATE**

The Estate Section carries out the maintenance and repairs to office and residential buildings of the campus. The Institute is in need additional capacity for accommodation students, faculty and also renovation of its existing management development building (Pragati Vihar). Besides Institute's is also in need of strenghtening security of the campus with a compound wall and also a Bungalow for Director. Necessary measures have been initiated and estimates have been worked out with the help of CPWD for carrying out these important projects.

The Institute has received approval from MHRD vide letter No. F. No.18-1/2019-TS.VII dated 25th Otober, 2019 for its proposal regarding the requirement of funds for capital works through loan from HEFA for following projects:

Sl. No.	Project	Cost (Rs. in Cr.)
1.	Boundary Wall Phase-II	10.00
2.	Taylor Hall - Phase II	22.00
3.	Pragati Vihar - Renovation	2.50
4.	Construction of Director's Bungalow	1.50
5.	Construction of Type V-B/Type VI-A Quarters	45.00
6.	Multipurpose Hall & Students Activity Centre	14.50
	Total	95.50

The Institute has applied for the loan which is under process with HEFA authorities.

The various maintenance works undertaken by section of value of more than 10 lakhs is given below:

Sr. No.	Name of Work	Agency	Amount
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.	Protection and Services	22,36,920.00
2.	Comprehensive annual maintenance contract including spare parts and labour (with oil and refrigerant) of HVAC plant (high & low side) at ALB.	India Pvt. Ltd.	11,26,580.00
3.	Supply of casual labourers for various activities in NITIE campus.	M/s Moosa Services Company	1,98,74,827.00
4.	Proposed interior work at rear wing of 6th floor ALB for NITIE at Powai Mumbai	M/s Bhagyasri Design Consultants	17,30,407.50





Sr. No.	Name of Work	Agency	Amount
5.	Internal/external painting to campus buildings of NITIE	M/s Nityanand Painting Contractor	58,38,498.00
6.	Replacement of main doors of 168 rooms and repairs to door frames at Gilbreth Hall	M/s Inter Art	14,43,336.00
7.	A/A of ground floor and basement of Anand Vihar to convert into Director's residence	M/s Panchratna Decorators	17,16,093.00
8.	Repairs and renovation of dispensary	M/s Inter Art	10,02,574.00
9.	Patch repairs to campus road	M/s G R Engineering and Infrastructure	12,33,836.00
10.	Internal and external painting and patch plaster repairing of Godavari building	M/s Panchratna Decorators	21,77,123.00



## **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**. The dispensary is the backbone of the Health of all NITIE community. NITIE Dispensary is open every day for 12 hours morning 9.00 am to 9.00 pm. The daily patient attendance is approximately 70-75 numbers. NITIE Dispensary provides services to the all PGP and PhD. Students, including all staff and faculty members and their families.

The NITIE Dispensary has paramedical staff Nurse, Compounder and Residential Medical officer (RMO) for 24hours and to attend emergencies. Day to Day basis medicines are dispensed including Intravenous injectables. Service has been provided since last 30 years without any interruption and with dedication.

The Following visiting Doctors' were available in Dispensary during the year:

- 1) **Ophthalmologist**: One consulting Ophthalmologist visits NITIE Dispensary once in a week for 2 hours and take care of all the patients.
- 2) **Gynaecologist**: One Gynaecologist consulting Doctor visits NITIE Dispensary once in a week to take care of ladies patients.
- 3) **Paediatrics**: One Paediatrics consulting Doctor visits NITIE Dispensary twice a week for two hours.

- Physician: Physician consulting Doctor visits NITIE Dispensary five days a week for two hours.
- 5) **Dentist**: 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.
- 6) **Homeopathy**: Presently three hours twice a week homeopathy medicines and consultation is being made available for NITIE Community by qualified Doctors.
- Orthopaedic: Presently one consulting orthopaedic doctor visit NITIE Dispensary for two hours in a week.
- 8) **Counselor**: In order to help with the academic pressure and hectic work schedule the service of one qualified counsellor has been arranged in NITIE Dispensary. This service is available twice a week for two hours.
- 9) Physiotherapist: Physiotherapist consultant is always available from Monday to Friday for two hours in NITIE Dispensary to take care of NITIE Student and Employee community.
- 10) Ambulance Service: One full fledge ready Ambulance has been hired on contract and made available for 24X7 to NITIE Community.



#### **SECURITY & TRANSPORT**

NITIE has 3 security guards (Watchman) at present; further NITIE has outsourced the security work to Maharashtra State Security Corporation (MSSC). 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 11 designated posts spread across NITIE Campus.

NITIE Transport Section has 1 Bus which is off road with effect from 01 May 2019 & which was earlier providing transport facility to our students as and when required to visit the industries.

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), Dy. Registrar (Administration) and Registrar are looking after the work for smooth functioning.



#### RIGHT TO INFORMATION ACT

Right to Information (RTI) is an Act of the Indian Parliament enforced from the year 2005, to provide for a practical regime for citizens to secure access to information under the control of public authorities. This aims to promote transparency and accountability in the working of every public authority.

The basic object of the Right to Information Act is to empower the citizens, to promote transparency and accountability in the working of the Government, to contain corruption, and to enhance people's participation in democratic process thereby making our democracy work for the people in a real sense. The Act is a big step towards making the citizens informed about the activities of the Government.

As per the mandate of RTI act, mandatory disclosure has been uploaded in the Institute

website by computerizing the records for the purpose of wide spread relay so that any information sought by the public can be processed quickly aided by the information categorization.

Director, NITIE is the Appellate Authority and Shri Anand Naidu, Manager Computer Centre has been designated as Central Public Information Officer to deal with the request of information and also to assist the persons seeking information. The Heads of the Departments/Sections are designated as Public Information Officers. The reply to RTI seekers is provided by the CPIOs within the prescribed time-limit.

Total No. of 3 RTI requests and 1 Appeal was received during the year 2019, and replies were provided to the RTI applicants, as per the guidelines under the RTI Act.



# VISITS OF FOREIGN EXPERTS

a. Foreign Experts visits to NITIE



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# FOREIGN EXPERTS VISITS TO NITIE

Prof. Alok Choudhary	Department of Supply Chain Management, Loughborough University, UK
Prof. Mukesh Kumar	Operations Management, IFM – University of Cambridge, UK
Prof. Satish Bukkapatnam	Industrial and Systems Engineering, Texas A&M University, USA
Prof. Bhavik Bakshi	Chemical and Biomolecular Engineering, Ohio University, USA
Dr. Urmila Diwekar	President, Stochastic Research Technologies LLC, USA



Prof. Peruvemba S Ravi	Operations and Decision Sciences, Wilfrid Laurier University, Canada
Prof. Rob A Zuidwijk	Global Supply Chains and Ports, Rotterdam School of Management, The Netherlands
Prof. Ashesh Kumar Sinha	Industrial and Manufacturing Systems Engineering, Kansas State University, USA
Prof. Subhash Sarin	Industrial and Systems Engineering, Virginia Polytechnic Institute and State University, USA
Prof. Rahul Rai	Mechanical & Aerospace Engineering at University at Buffalo, USA





Mr. Darryl Day	MD, International Centre of Excellence in Water Resources Management, Australia
Dr. Marco Andreozzi	PegasoCanton, Italy
Prof. Vithala Rao	Marketing and Quantitative Methods, Samuel Curtis Johnson Graduate School of Management, Cornell University, USA



### **NITIE ALUMNI ASSOCIATION**



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### NITIE ALUMNI ASSOCIATION (NAA)

### A. Annual General Body Meeting:

NITIE Alumni Association organized the 35th Annual General Body Meeting on 2nd November, 2019, at NITIE, Mumbai. The members discussed the activities carried out by NAA and shared their views on the same. Annual Statement of Account for the year 2018-2019 was passed by the members.

### Following is the list of Executive Committee Members for year 2019-2020

President : Prof. Dr. Manoj Kumar Tiwari, NITIE.

Chairman : Mr. Dev Bhatttacharya

Hon. Secretary : Prof. Sumi Jha
Hon. Treasurer : Prof. K.S. Ranjani
Vice-Chairman (PGP) : Mr. Nikhil Gurjar
Vice-Chairman (MDP) : Mr. P.R.Kondekar

### **Zonal Representative:**

West Zone (PGP) : West Zone (MDP): Lt.Co.(R) Rameshwar Naik

East Zone (PGP) : Mr. Deb Kumar Guha
North Zone (PGP) : Mr.Siddharth Tripathi
South Zone (PGP) : Mr.Paresh Masade
Fellow Representative : Prof. Nigel D'Silva

The Annual General Body Meeting was attended by 64 members of NAA, NITIE Faculty members and students representatives. Sansmaran was attended by 400 members.

### B. Alumni Activities:

### 1. Alumni Felicitation:

- a) Distinguished Alumnus Awards were presented to the outstanding alumni Mr. Sushil Kumar Rathi and AVSM Rajiv Gandotra during Sansmaran on 2nd November, 2019. Similarly, the Promising Young Alumnus Award was presented to Ms. Vaishali Bansal and Mr. Mandeep Manocha by NAA.
- b) Following PGP, Fellowship and MDP batches were felicitated during Sansmaran, on 2nd November 2019
  - a) 40 years of completion (PGDIE 7th Batch)
  - b) 25 years of completion (PGDIE 23rd Batch, PGDIM 1st Batch) Silver Jubilee Batches
  - c) 10 years of completion

(i) PGDIE - 37 (ii) PGDIM - 14 (iii) PGDISEM - 7

(iv) Fellow Students - Completion year 2009(v) MDP Participants - Completion year 2009



2. Faculty Award/Student Rangan & Madala Scholarship, were presented on 2nd November, during Sansmaran' 2019:



Best faculty award for special contribution to society / student community sponsored by Mr. Dev Bhattacharya, awarded by Dr. Ganesh Natarajan to Prof. Utpal Chattopadhyay, and presided by Dr. D.K. Srivastava, Director Incharge, NITIE.



Award sponsored by Mr. Dev Bhattacharya to Prof. Sumi Jha for her consistent efforts towards new initiatives for betterment of NITIE Alumni Association, awarded by Dr. Ganesh Natarajan and presided by Dr. D.K. Srivastava, Director Incharge, NITIE.

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

- 1. Ms. Laveena Rastogi
- 2. Ms. Shaily Singh

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

- 1. Mr. Bhargav Bhatt
- 2. Mr. Sarthak Singh
- 3. Website and mobile application were launched during Sansmaran 2019. The website is up to date with latest events held within the campus and achievements of our alumni as well. A new feature to accept donations for the alma mater is now active on the portal.
- 4. NAA organized Regional Alumni Meets at cities like Bangalore, Delhi, Mumbai, Kolkata, Pune, Chennai and Hyderabad during April-May 2019. Apart from within India, RAM has also been organized in the US, Singapore and Dubai. As a rebranding initiative for Regional Alumni Meet, NAA newly named regional meets as 'Anusmriti'.
- 5. Involving Alumni in Institute administration as members of Board of Governor and Academic Council of NITIE.
- 6. NAA organized periodical guest lectures as alumni and interaction with students to develop their knowledge base.



- 7. Institute involved various alumni to be part of admission process of PGDIE/IM/ISEM/MM/PM Course. This was initiated to get industry perspective at the time of students' admission.
- 8. NAA organized alumni-student interaction through our engagement initiatives like Abhisanskaran, Tarang, Pre-placement guidance sessions amongst various others.
- 9. Prof. D.K.Srivastava, Director I/c & President NAA released "AlumNiti" the alumni magazine on 2nd November, 2019 at the Annual Meet "Sansmaran" 2019.

### **Executive Committee Meeting:**

NITIE Alumni Association organized Executive Committee Meetings on 2nd August, 2019 at NITIE and on 27th March, 2020 via Zoom Platform.



### **INSTITUTE EVENTS**

- a) XXV Convocation NITIE
- b) HINDI Implementation
- c) Vigilance Awareness Week
- d) Yoga Day
- e) NITIE Cultural and Welfare Activities



Annual Report 2019-20





### **XXV CONVOCATION - NITIE**

On 14th September, 2019, National Institute of Industrial Engineering (NITIE) celebrated XXV Annual Convocation Ceremony. The event was graced by Shri Bishnupada Sethi, IAS, Managing Director, Odisha State Disaster Management Authority (OSDMA) Odisha, India as Chief Guest and the Guest of Honour Shri Ramanathan Ramanan, Mission Director, Atal Innovation Mission, NITI Ayog. 384 students of PGDIE-XLVII, PGDIM-XXIV, PGDISEM-XVII, PGDMM-IV and PGDPM-IV Batches have been awarded Degree/Diploma certificates and 18 students have been awarded Fellow of NITIE. The first batch of 17 (seventeen) students were awarded PGPEX-VLFM programme.



XXV Annual Convocation Ceremony – Chief Guest Shri Bishnupada Sethi, IAS, Managing Director, Odisha State Disaster Management Authority (OSDMA) Odisha, India and the Guest of Honour Shri Ramanathan Ramanan, Mission Director, Atal Innovation Mission, NITI Ayog with Prof. Sanjay G. Dhande, Chairman, Board of Governors, Prof. Dinesh K. Srivastava, Director Incharge.





XXV Annual Convocation Ceremony – Chief Guest Shri Bishnupada Sethi, IAS, Managing Director, Odisha State Disaster Management Authority (OSDMA) Odisha, India and the Guest of Honour Shri Ramanathan Ramanan, Mission Director, Atal Innovation Mission, NITI Ayog with Prof. Sanjay G. Dhande, Chairman, Board of Governors, Prof. Dinesh K. Srivastava, Director Incharge, Shri Basavaraj Swamy, Registrar, Board Members and Teaching Faculty Members of NITIE, Mumbai.



### HINDI IMPLEMENTATION

### **OFFICIAL LANGUAGE ACTIVITIES:**

### 1. HINDI WORKSHOP (April - June, 2019):

A one-day Hindi Workshop was organised in NITIE on 17th May, 2019. Eight Officers/ Employees of the Institute participated in the workshop. 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; Correct use of Grammar & Spelling in Hindi, Original form of Official Correspondence in Hindi,. Shri Prashant Goswami, Mrs. Shobhana Suresh, Shri Ramotar Kumawat, Mrs. Jalaja Ramachandran, Mrs. Sushma Bele, Shri Devendra Swant, Shri Prabhakar Parab and Shri Sanjay Rane were present in this workshop. Md. Aftab Alam, Hindi Officer, NITIE conducted the programme and gave vote of thanks.



Dr. Jawahar Karnavat, GM(Official Language), Bank of Baroda, Mumbai with the participants of Hindi Workshop.

### **2. HINDI WORKSHOP** (July - September, 2019):

A one-day Hindi Workshop was organised in NITIE on 21st August, 2019. Ten Officers /

Employees of the Institute participated in the event. The eminent personalities working for the progress of Hindi delivered lectures on various subjects i.e Computer and Hindi Unicode. Official Correspondence Practice, Grammar & Spelling in Hindi: Easy Solutions, Official Language Implementation in Govt. Offices, etc. Mrs. Bhagyashree E. Korday, Mrs. Sangita N. Jadhay, Mrs. Pratima N. Dabholkar, Ms. Sunita R.Karkera, Shri C.N. Mokal, Shri Rajesh V. Lad, Shri Ravi A. Sawant, Shri Nitin V. Devikar, Shri M. Bhoominathan and Shri Dipesh D. Rawool were present in this workshop. Md. Aftab Alam, Hindi Officer, NITIE conducted the programme and gave vote of thanks.



Dr. Anant Shrimali, Asstt. Director, Central Hindi Teaching Sub Institute, Govt. of India, Navi Mumbai delivering his lecture to the participants of Hindi Workshop.

### **3. HINDI WORKSHOP** (October - December, 2019):

A one-day Hindi Workshop (October - December, 2019) was organised in NITIE on 15th November, 2019. Nine Officers / Employees of the Institute participated in the event. The eminent personalities working for the progress of Hindi delivered lectures on various subjects i.e Correct use of Grammar & Spelling in Hindi, Official Noting - Drafting and



Practice, Official Correspondence and Practice, Implementation of Official Language Policy and Annual Programme. Shri Liju David Mathew, Mrs. Lakshmi Narayan, Shri G.M. Kokani, Shri A. K. Vishwakarma, Mrs. Archana S. Padman, Shri V. A. Patankar, Shri Y. N. Thombare, Shri Atul M. Dhoble and Shri Dinesh G. Solanki were present in this workshop. Md. Aftab Alam, Hindi Officer, NITIE conducted the programme and gave vote of thanks.



Dr. Rajeshwar Uniyal, Deputy Director (O.L), CIFE, Mumbai with the participants of Hindi Workshop.

### **4. SPECIAL HINDI WORKSHOP** (January - March, 2020):

A special Hindi Workshop was organised in NITIE on 20th January, 2020. Seventeen Faculty Members, Officers and Employees of the Institute (including Prof. Manoj Kumar Tiwari, Director, NITIE) participated in the event. Ms. Suniti Sharma, Director (OL), Ministry of HRD, Government of India, New Delhi delivered lectures on various subjects i.e Official Language Policy, Official Correspondence, Implementation of Annual Programme, etc. Prof. Purnima Sangle, Prof. BE Narkhede, Shri Basavaraj Swamy, Shri Anand Naidu, Mrs. Sangita Jadhav, Dr. Smruti Patel, Shri Prashant Salunkhe, Shri Prashant Goswami, Shri BT Havelikar, Mrs. Sobhana Suresh, Ms. Sunita Karkera, Shri Ramotar Kumawat, Mrs. Jayashree Nair, Mrs. Vandana Parkhal and Shri Rakesh Kumar Shaw were present in this special Hindi Workshop. Md. Aftab Alam, Hindi Officer, NITIE conducted the programme and gave vote of thanks.



Ms. Suniti Sharma, Director(OL), Ministry of HRD, Government of India, New Delhi delivering her lecture to the participants of special Hindi Workshop.

### OFFICIAL LANGUAGE IMPLEMENTATION COMMITTEE & HINDI CO- ORDINATION COMMITTEE MEETINGS:

During the year 2019-20, NITIE conducted Four joint meetings of "Official Language Implementation Committee" and "Hindi Coordination Committee" constituted for the implementation of Official Language Hindi in the Institute on 28.6.2019, 30.8.2019, 3.12.2019 and 5.3.2020. Director, NITIE and Chairperson of the Committee presided over the meetings. The Committee discussed in detail in meetings and appropriate decisions were taken regarding the implementation of Official Language Hindi in the Institute.

### 6. HINDI FORTNIGHT CELEBRATIONS - 2019

NITIE celebrated Hindi Fortnight from 14th September, 2019 to 30th September, 2019. Essay writing, Memory Power, Cross Word Puzzle, Questionnaire (About office), Debate, Noting Writing, Hindi Stenography, Hindi



Typing, Photo Story Writing, Self written Poetry, Legible Handwriting, Dictation Competition were organised on this occasion for Faculty Members, Officers, Staff and Student in which many participants were won the prizes.

The valedictory function was organised on 26th November, 2019 and the prizes and letters of appreciation to the winners of various Hindi competitions were distributed by the Chief guest and Director of the Institute.

At the valedictory function, Chief guest Dr. Kiran Roy, Associate Professor, Maharashtra National Law University, Powai, Mumbai congratulated the winners of the competitions of Hindi fortnight and appreciated to all for regular use of Hindi.

Prof. Manoj Kumar Tiwari, 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.



Prof. Manoj Kumar Tiwari, Director, NITIE delivering his speech on the occasion of Valedictory Function of Hindi Fortnight. On Dias, Dr. Kiran Roy, Chief Guest & Assoc. Professor, Maharashtra National Law University-Mumbai; Prof. Sachin Kamble, Assoc. Professor and Shri Basavaraj Swamy, Registrar, NITIE were present.

### 7. HINDI TRANSLATION TRAINING (Compulsory):

- (i) Shri Rakesh Kumar Shaw, Jr. Hindi Translator successfully completed Hindi Translation Training (compulsory) from 1st April to 14th May, 2019 organised by Central Bureau of Translation, Ministry of Home Affairs, Govt. of India, Belapur CBD, Navi Mumbai.
- (ii) Shri Mohd. Aftab Alam, Hindi Officer successfully completed Hindi Translation Training (compulsory) from 6th January 2020 to 14th February, 2020 organised by Central Bureau of Translation, Ministry of Home Affairs, Govt. of India, Belapur CBD, Navi Mumbai. He received "Silver Medal" in Translation Training Examination also.

### 8. RAJBHASHA KEERTI AWARD TO NITIE:

NITIE was awarded with "2nd prize of Rajbhasha Keerti Award" in "B" region by Official Language Department, Ministry of Home Affairs, Govt. of India for the year 2018-19 for the excellent implementation of Official Language Hindi in the Institute. Md. Aftab Alam, Hindi Officer received the prestigious award from Hon'ble Home Minister of India Shri Amit Shah. at Vigyan Bhavan, New Delhi on 14th September, 2019 on the occasion of Hindi Day.

The Official Language Department, Ministry of Home Affairs, Govt. of India invited entries for Rajbhasha Award in which Central Govt. Offices / Institutions / Undertakings etc. through out of India send their Hindi Implementation reports. It is a matter of pride and pleasure that NITIE has been chosen for this prestigious award.

It is worth noticing that NITIE has been honoured with "Official Language Award" for diferent years (2005-06, 2007-08, 2013-14,



2014-2015 and 2017-2018) for the excellent implementation of Official Language Hindi in the Institute. Prof. D. K. Shrivastava, Director in-charge of the Institute expressed pride and happiness and reiterated NITIE's commitment to speed up Hindi Implementation in the Institute in coming years.



Md. Aftab Alam, Hindi Officer, NITIE, receiving the "Rajbhasha Keerti Award" by Shri Amit Shah, Hon'ble Home Minister of India. Shri Nityanand Rai & Shri Kishan Reddy, Minister of State for Home Affairs were also present on this occasion.

### 9. AASHIRWAD RAJBHASHA AWARD TO NITIE:

NITIE was awarded with 3rd prize of "Aashirwad Rajbhhasha Award" for carrying out excellent work in Hindi for the year 2018-19 by Aashirwad, a Literary-Socio-cultural Organisation. Md. Aftab Alam, Hindi Officer, received this Award from Shri Kaiser Khalid, Inspector General of Police, in a special function organised on 20th September, 2019 at Walchand Auditorium, Indian Merchant Chambers, Churchgate, Mumbai. On this occasion, Dr. Umakant Bhajpayee, Director, Aashirwad and several eminent personalities of media, literature and official Language were present.



Md. Aftab Alam, Hindi Officer, NITIE, receiving the "Aashirwad Rajbhasha Award" on behalf of the Institute.

### 10. TOLIC PRIZE TO SHRI ANAND WARE, LDC (SRIC):

Received consolation prize for 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 12.03.2019. Honoured by Shri Chandrapal Singh Chauhan, Development Commissioner, Office of the Development Commissioner, SEEPZ - SEZ, Andheri (E), Mumbai with Shawl, Bouquet and Memento in 2nd Half Yearly meeting organised by the committee.



Shri Anand Ware, LDC (SRIC) receiving the prize of TOLIC.



### 11. DETAILS OF CONFERENCE/MEETING/WORKSHOPS, ATTENDED:

### PROF. SANJEEV VERMA, ASSOCIATE PROFESSOR

Participated in 2nd 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 18th December, 2019.

### MD. AFTAB ALAM, HINDI OFFICER

Participated in 2nd 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 18th December, 2019.

### EK BHARAT SHRESHTHA BHARAT

Under the directives of MHRD regarding initiatives of EK Bharat Shreshtha Bharat (EBSB), NITIE is paired with IIT Bhubaneswar, Odisha. The objective of this programme is to promote national integration through systematic exchange between paired state/UTs in the cultural literary and linguistic fields. In the pursuance of these objectives, NITIE, Mumbai initiated several activities under EBSB Club at NITIE. During the year (January 2020-March 2020), following events were organized under the auspice of this club.

SN	Event	Start Date	End Date	No. of participants	No. of resource person
1	Inauguration of EBSB Club	13-01-2020	13-01-2020	150	8
2	Swachta Pledge in Odiya, Marathi, Hindi, English	13-01-2020	13-01-2020	150	8
3	Celebration of the confluence of various Indian harvest festivals like Agira Purnima (Odisha), Makar Sankranti (several states of India), Lohri (Punjab), Pongal (Tamil Nadu) along with NITIE Hostel Student activities.	13-01-2020	13-01-2020	150	8
4	EBSB DAY: Photo Exhibition of Odisha's cultural heritage	24-01-2020	26-01-2020	150	10
5	EBSB Odia and Marathi Language Classes and Swachta Pledge in Odiya, Marathi, Hindi and English	10-02-2020	10-02-2020	30	5
6	EBSB DAY: EBSB Heritage Video Screening on Maharashtra and Odisha	26-02-2020	26-02-2020	35	2
7	Saraswati Pooja along with NITIE Hostel Student activities	29-01-2020	29—01-2020	800	10



In view of COVID-2019, the cultural exchange trip to IIT, Bhubaneshwar (planned in March 2020) was postponed until later.







### **VIGILANCE AWARENESS WEEK**

NITIE observes Vigilance Awareness Week every year to create awareness amongst all our stakeholders.

This year NITIE observed the Vigilance Week from 28th October, 2019 to 2nd November, 2019 with the theme "Integrity: way of Life (ईमानदारी – एक जीवन शैली)" and the following activities were conducted:

- 1. Printing of Posters, Banners, Stickers and Display (Bilingual)
- 2. Integrity Pledge
- 3. Organizing Debate and Guest Lecture by an eminent person
- 4. Other Programmes:
  - a) A write-up on Anti-corruption was displayed on the Institute website.
  - b) A Slogan competition (in Hindi or English) on the theme "Integrity : way of Life (ईमानदारी एक जीवन शैली)".
- 5. Display of books on the subject 'Anti-corruption'.



### **YOGA DAY**

As per the directives of MHRD, NITIE celebrated 5th International Yoga Day on Friday, 21st June 2019.

On this occasion, a Yoga Workshop was organized for the students, faculty, officers, staff and campus residents. Ms Charu Doshi, Yoga Trainer from Kaivalyadham, Mumbai conducted the workshop at Taylor Hall, NITIE.

Poster display competition on the theme "Yoga and You" was also organized. A book display at Library during the week. Various available books on Yoga in the Library were displayed.









More than 50 participants participated in the event. Prof. Karuna Jain, Director, NITIE, Dr Basavaraj Swamy, Registrar NITIE, all the Deans, faculty members, students, and campus residents were present during the occasion.

Shri Ajay Maderana and Prof. Nikhil K Mehta conducted the proceedings while Mr Liju Thomas proposed the vote of thanks. The programme concluded with the national anthem.



### NITIE CULTURAL AND WELFARE ACTIVITIES

### Women Development Cell of NITIE - WDC

- 1. A session on Art of living was organized by WDC. It was successfully conducted by Varsha D'Souza, a senior Art of Living faculty member and Soham D'Souza. This session included meditation, sukshma yoga, techniques for mind management and stress-reduction.
- 2. WDC organized a self-defence workshop for women in NITIE conducted by the renowned Trainer Mr Rajenderan Nair, Erstwhile Head-Admin & Corporate Affairs at TATA Power. This was part of the confidence building for the women and girl students at NITIE.
- 3. A soft copy of the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 was circulated to all employees and students by the Women Development cell as a part of awareness building in the campus.
- 4. The Honourable Director of NITIE has approved the provision of a ladies room for girl students and employees as requested by the WDC and also has approved the purchase of an incinerator for safe disposal of sanitary napkins in the ladies Hostel

### Women's Day Celebrations

Women Development Cell of NITIE, Mumbai organized many events on the occasion of Women's day under the Guidance of Prof. Seema Unnikrishnan, Prof. Anju Singh, Prof. Upasana Aggarwal & Prof. Priyanka Verma.

Competitions like Essay writing, Drawing, Poster and Debate competition on women empowerment have been conducted for all the members of the NITIE Fraternity. All the topics were related to the UN theme for Women's day this year - "An Equal world is an enabled world", promoting the thought of equal position for women in our Society.

Sports events like slow cycling, 100 m race, Table tennis and badminton were held on 8th of March, International Women's Day for women in the NITIE campus.

Prize distribution ceremony and Panel discussion by successful corporate women on topic "Leadership and Women empowerment" was held on 11th March 2020. Esteemed guests for the event were Ashu Khanna, Founder and CEO of ARKA Leadership.Neha Parekh, GM Planning at GCPL,Santoshi Kittur, MD Service Delivery Centre PWC, Kanimozhi Subburaman, Data Scientist Raw Material Sourcing at Mondelez International.

The panelists were from diverse professional backgrounds and shared their inspirational journey to leadership positions in the corporate world. The panelists motivated budding managers of NITIE to develop grit, grace and confidence to pursue their dreams and career. Have a voice, declare your aspirations and persevere, was a strong message from all panelists to the audience.







Self Defence workshop



The art of Living Workshop by WDC:



Panel Discussion By WDC Held on 11th March2020:



Debate Competition on Women Empowerment:





Prize Distribution to the winners of WDC competitions by our Honorable Director

Institute also celebrated the following activities as per Government of India norms for the year 2019-2020.

- 1. Independence Day
- 2. Yoga Day
- 3. Swachhata Abhiyan
- 4. Rashtriya Ekta Day
- 5. Constitution Day
- 6. Republic Day Celebration
- 7. Matrubhasha Day
- 8. Women's Day



### **ANNUAL ACCOUNTS**



Annual Report 2019-20





### **ANNUAL ACCOUNTS**

For the financial year 2019-2020 the ministry (MHRD / MOE) has been sanctioned an Amount of Rs.7331.00 lakks towards Grant-in-Aid to the institute. The details as below.

- Grant in Aid An amount of Rs. 22,97,00,000/- (Rupees Twenty-Two Crore Ninety-Seven Lakhs Only) under OH-31 (Non salary), Rs.75,00,000/- (Rupees Seventy-Five Lakhs Only) under OH-35 (Creation of Capital assets), and Rs. 49,59,00,000/- (Rupees Forty-Nine Crores Fifty-Nine Lakhs Only) under OH-36 (Salary) was sanctioned during the Financial Year 2019-2020 by GOI, MHRD to NITIE, Mumbai.
- The total Grant in aid sanctioned from MHRD is Rs. 73,31,00,000/- (out of which Rs. 46,31,00,000/- was received during the year and the remaining Rs. 27,00,00,000/- was shown as grant receivable) for the financial year 19-20 and Internal Revenue Generated is Rs. 65,94,19,651/-
- Total Expenditure is Rs. 142,72,15,317/- (Under OH-31 is Rs. 90,98,02,352/-, For OH-35 is Rs. 04,21,95,666/ and OH-36 is Rs. 47,52,17,299/- Closing balance as on 31st March 2020 is (negative) Rs. -6,74,14,412/-
- The closing balance amount as on 31.3.2020 under OH-35 (Capital Assets) is overspent of Rs. (-) 6,74,14,412/- and the balance under OH-31 (Non Salary) is Rs. (-) 5,86,83,723/- and under OH-36 (Salary) is Rs. 5,86,83,723/- hence the net effect and available balance under OH-31 & OH-36 is Rs. NIL.
- Total expenditure accounted under the OH-31 (Non Salary) is Rs. 90,98,02,352/- which included actual expenditure of Rs. 44,29,75,607/-, plus an amount of Rs. 9,55,00,000/- which is transferred to building fund and Rs. 9,33,65,349/- which is transferred to contribution towards corpus / capital fund. An amount of Rs. 27,79,61,396/- earmarked towards the transfer to Endowment account from the Capital fund of Main Account.

Object Head	Opening Balance As on 1.4.2019	Grant Sanctioned / received during the year	Internal Revenue Generated	Total Gross	Expenditure	Balance as on 31.3.2020
OH 31 (Non Salary)	-3,80,01,022	22,97,00,000	65,94,19,651	85,11,18,629	90,98,02,352	-5,86,83,723
OH 35 Capital)	-3,27,18,746	00,75,00,000	-	-02,52,18,746	04,21,95,666	-6,74,14,412
OH 36 (Salary)	3,80,01,022	49,59,00,000	-	53,39,01,022	47,52,17,299	5,86,83,723
Total	-3,27,18,746	73,31,00,000	65,94,19,651	135,98,00,905	142,72,15,317	-6,74,14,412



### Details of Fund-Flow- Object head wise for the year 2019-20.

### **Details of Bank Accounts:**

Sr.No	Name of the Account	Bank	Operational Purpose.
1	NITIE Main A/c (Non Plan)	State Bank of India, Vihar Lake, Mumbai	Recurring Expenditure
2	NITIE Main A/c (Plan)	Canara Bank, IIT, Mumbai	Capital Expenditure
3	NITIE BCPAAA A/c	State Bank of India, Vihar Lake, Mumbai	Internal account for Misc. Activities.
4	NITIE Endowment Fund A/c	State Bank of India, Vihar Lake, Mumbai	Endowment Fund
5	NITIE GPF A/c	State Bank of India, Vihar Lake, Mumbai	GPF of Employees
6	NITIE CPF A/c	State Bank of India, Vihar Lake, Mumbai	CPF of Employees
7	NITIE Post-Retirement Medical Scheme (PRMS) A/c	State Bank of India, Vihar Lake, Mumbai	Medical Benefits to Retired Employees
8	NITIE DDF A/c	State Bank of India, Vihar Lake, Mumbai	Director Discretionary Fund
9	NITIE TIFAC - CORE	State Bank of India, Vihar Lake, Mumbai	Project Account
10	NITIE IIPC A/c	State Bank of India, Vihar Lake, Mumbai	Project Account
11	NITIE Main A/c (Savings)	Canara Bank, IIT, Mumbai	For receiving grants from Ministry
12	NITIE Avartan Account (Savings)	Canara Bank, IIT, Mumbai	Recurring expenditure – Student Activities

The Institute maintains separate Bank account for the funds received from government under Plan (OH-35) and Non Plan grants (OH-31 & OH-36). Funds are banked at Canara Bank and State Bank of India. Details of all operating accounts are mentioned below.

The Institute has opened separate Saving Bank Account for receiving Grant-in-Aid from the Ministry, as per the instructions received from MHRD & subsequent approval of Chairman, BOG NITIE, Mumbai. Saving Account no. 2724101113266 opened in the name of "NITIE Main Account" at Canara Bank, IIT Powai, Mumbai.

As per the revised formats of Financial statement for Central Institutions, the Institutes prepares separate Financial statement of Annual Accounts for all these accounts. The Institute maintains Receipts & Payments Accounts, Income & Expenditure Accounts and Balance Sheet in respect of the following accounts.



### Table 1: Institute Account

Sr. No.	Name of the Account
1	NITIE Main A/c - Plan and Non-Plan Account
2	NITIE BCPAA A/c - Boarding Charges for Participants and Aluminise Amenities Account
3	NITIE Endowment Fund Account
4	NITIE DDF A/c - Director Discretionary Fund Account

### **Table 2: Internal Accounts**

Sr. No	Name of the Account
1	NITIE GPF A/c and CPF A/c - General Provident Fund Accounts and Contributory Provident Fund Account
2	NITIE PRMS A/c - Post Retirement Medical Scheme Account
3	NITIE Projects A/c - TIFAC CORE & IIPC Account
4	NITIE New Plan Scheme - Closed Project

The financial statement of the Institute Accounts for the financial year 2019-20 is annexed here with.



# Financial Statement for the Financial Vear

2019-2020

## Main Account (Plan & Non-Plan)

1. Balance Sheet

2. Income & Expenditure Account

3. Receipts & Payments Account (With All Schedules)



### NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING Vihar Lake, Mumbai – 400 087



### NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI BALANCE SHEET AS AT 31ST MARCH, 2020

			(Amount in Kupees)
	Schedule	Current Year	<b>Previous Year</b>
SOURCES OF FUNDS	No.	2019-2020	2018-2019
CORPUS/CAPITAL FUND	1	1,656,003,317	514,332,436
DESIGNATED / EARMARKED / ENDOWMENT FUNDS	2	183,753,277	910,382,163
CURRENT LIABILITIES & PROVISIONS	3	275,612,101	253,679,540
TOTAL		2,115,368,695	1,678,394,139

	Schedule	Current Year	Previous Year
APPLICATION OF FUNDS	No.	2019-2020	2018-2019
FIXED ASSETS	4		
Tangible Assets		984,064,957	174,973,226
Intangible Assets		2,911,161	2,327,116
Capital Work In Progress		168,630,040	1,046,869,518
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5		
Long Term		,	'
Short Term		46,489,074	43,665,515
INVESTMENTS - OTHERS	9	484,923,980	292,643,147
CURRENT ASSETS	7	53,480,121	25,817,716
LOANS, ADVANCES & DEPOSITS	8	374,869,363	92,097,901
TOTAL		2,115,368,695	1,678,394,139

ACCOUNTS OFFICER

MONTH MONTH

DIRECTOR

INTERNAL AUDITOR



### NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING

## INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2020

Dartiniare	Cchodulo	3
Latticatals	No.	2 2
INCOME		
Academic Receipts	6	
Grants / Subsidies	10	
Income From Investment	11	
Interest Earned	12	
Other Income	13	
Prior Period Income	14	
TOTAL (A)		
EXPENDITURE		
Staff Payments & Benefits (Establishment Expenses)	15	
Academic Expenses	16	
Administrative and General Expenses	17	
Transportation Expenses	18	
Repairs & Maintenance	19	
Finance Costs	20	
Depreciation	4	
Other Expenses	21	
Prior Period Expenses	22	
Total (B)		
Balance being excess of Income over Expenditure (A-B)		
Transfer to / from Designated Fund		
Building Fund		
Others (Contribution towards Corpus / Capital Fund)		
Balance being Surplus / (Deficit) carried to Capital Fund		
	Married Street, Control of the Contr	

380,180,786

100,179,151

125,480,260

55,501,028

552,730,043

736,259

64,009,324 132,929 110,759,368 2,825,094 6,018,601 918,192,906 466,826,745

58,713,871 1,620,281 176,695 14,649,479

52,907,292

608,427,555

95,207,720

95,500,000.00 93,365,349.00 277,961,396

314,815,893

620,952,244 725,600,000

(Amount in Rupees) Previous Year 2018-2019

> urrent Year 019-2020

327,500,000 41,733,457 91,040

> 36,776,278 123,841

17,640,584

1,567,288

1,854,301

703,635,275

1,385,019,651







DY. REGISTRAR (ACCOUNTS)



95,207,720



DIRECTOR







Opening Balances     a) Cash Balances     b) Bank Balance     i. In Current Accounts     SBI - Main Account	2019-2020	Previous Year 2018-2019	PAYMENTS	Current Year 2019-2020	Previous Year 2018-2019
a) Cash Balances b) Bank Balance i. In Current Accounts SBI - Main Account			I. Expenses		
b) Bank Balance i. In Current Accounts SBI - Main Account	12,003	86,200 a)	a) Establishment Expenses	407,380,388	354,614,781
i. In Current Accounts SBI - Main Account			b) Academic Expenses	196,987,263	111,368,256
SBI - Main Account			c) Administrative Expenses	47,964,357	50,651,157
	12,959,169	23,453,941	(p	504,734	680,270
Canara Bank - Plan Account	3,969,251	6,126,158 e)	e) Repairs & Maintenance	44,591,794	40,917,714
Canara Bank - Avartan Account	1,183,868		f) Prior period Expenses	7,338,366	325,246
ii. In Deposit Accounts	,	D.	g) Other Expenses		
iii. Savings accounts					
II. Grants Received			II. Payments against Earmarked / Endowment Funds	294,704,162	518,108,089
a) From Government of India	463,100,000	432,850,000			
b) From State Government					
C) From other sources					
III. Academic Receipts	605,215,691	337,011,339	337,011,339 III. Payments against Sponsored Projects / Schemes	900,371	1,056,633
IV. Receipts against Earmarked / Endowment Funds	199,553,797	150,365,044	150,365,044 IV. Payments against Sponsored Fellowships / Scholarships	î	- 6
V. Receipts against Sponsored Projects / Schemes	916,218	1,586,100	<ul> <li>Investments and Deposits made</li> </ul>		,
			<ul> <li>a) Out of Earmarked/Endowments funds</li> </ul>		
			b) Out of own funds (Investments - Others)	1,228,169,824	1,835,447,832
				The second secon	
VI. Receipts against sponsored Fellowships and Scholarships			VI. Term Deposits with Scheduled Banks	×	9
VII. Income on Investments from			VII. Expenditure on Fixed Assets and Capital Work - In -		
			Progress		
a) Earmarked/Endowment funds			a) Fixed Assets	42,126,061	24,094,166
b) Other Investments		35,126,929 b)	b) Capital Works - in - Progress		1111



RECEIPTS	Current Year	Previous Year 2017-18	PAYMENTS	Current Year 2018-19	Previous Year 2017-18
VIII. Interest received on	27.0404		VIII. Other Payments including statutory payments	40.994.110	100.770.813
a) Bank Deposits	26,105,861	5,004,336			
	115,389	100,197			
	781,112				
IX. Investments encashed	1,035,888,991	2,003,959,684	2,003,959,684 IX. Refunds of Grants	c	i.
X. Term Deposits with Scheduled Banks encashed			X. Deposits and Advances	96,397,623	47,549,620
XI. Other income (including Prior Period Income)	7,700,175	8,525,288	8,525,288 XI. Other Payments	280,095,495	55,273,717
XII. Deposits and Advances	99,941,735	35,893,397	35,893,397 XII. Closing balances		
			a) Cash in hand	110,159	12,003
			b) Bank balances		
			In Current Accounts		
		22.	SBI - Main Account	23,258,460	12,959,169
			Canara Bank - Plan Account	21,330,747	3,969,251
			Canara Bank - Avartan Account	1,448,473	1,183,868
			In Savings Accounts		6
XIII. Miscellaneous Receipts including Statutory Receipts	41,249,917	99,320,634		×	
XIV. Any Other Receipts	235,609,211	19,573,339			
TOTAL	2,734,302,387	3,158,982,585	TOTAL	2,734,302,387	3,158,982,585









# Financial Statement for the Financial Vear

2019-2020

## ENDOWMENT FUND

- 1. Balance Sheet
- 2. Income & Expenditure Account 3. Receipts & Payments Account



# NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING Vihar Lake, Mumbai – 400 087

DIRECTOR



### NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI BALANCE SHEET AS AT 31ST MARCH, 2020 **ENDOWMENT FUND**

	•				(Amount in Rupees)
Previous Year 2018-2019	Liabilities	Current Year 2019-2020	Previous Year 2018-2019	Assets	Current Year 2019-2020
	Corpus/ Capital Fund			Interest Accrued	
572,428,534	572,428,534 Opening Balance	572,428,534	71,739,428	71,739,428 Opening Balance	59,319,477
	Add/Less: During the year		12,555,831	12,555,831 Add: During the year	54,472,108
572,428,534	572,428,534   Closing Balance	572,428,534	(24,975,782)	(24,975,782) Less: Last year	(3,906,908)
			59,319,477		109,884,677
	Matching Grant				
96,481,000	96,481,000 Opening Balance	96,481,000		Investment	
·	Add/Less: During the year		1,505,728,464	1,505,728,464 Opening Balance	1,946,534,750
96,481,000	<b>96,481,000</b> Closing Balance	96,481,000	2,050,406,821	2,050,406,821 Add: Invested during the year	3,479,316,236
			(1,609,600,535)	(1,609,600,535) Less: Encashed during the year	(3,327,746,678)
	Reserves & Surplus		1,946,534,750		2,098,104,308
914,802,048	914,802,048 Opening Balance	1,336,944,692			
422,142,644	422,142,644 Add: Excess of Income over Expenditure	204,883,687		Bank Balance	
1,336,944,692	1,336,944,692 Closing Balance	1,541,828,380	P	SBI	2,748,929
				2	
2,005,854,227 TOTAL	TOTAL	2,210,737,914	2,005,854,227 TOTAL	TOTAL	2,210,737,914

UNTS OFFICER

DY. REGISTRAR(ACCOUNTS)





### INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2020 NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI **ENDOWMENT FUND**

	>			¥	(Amount in Rupees)
<b>Previous Year</b>	Expenditure	Current Year	Previous Year	Income	Current Year
2018-2019		2019-2020	2018-2019		2019-2020
	Interest Credited to Endowment	r		Interest earned on Investment	
			67,111,585	67,111,585 Interest received during the year	59,112,649
	Other Expenses		12,555,831	12,555,831 Add: Interest accrued during the year	54,472,108
53	Bank Charges	1,882		Add: Tax recovered on interest - Refund to be obtained	1
			(24,975,782)	(24,975,782) Less: Interest accrued during previous year	(3,906,908)
			54,691,634		109,677,849
				Other Income	
		4	367,451,064	367,451,064 Misc. Receipts	95,207,720
422,142,644	422,142,644 Excess of Income over Expenditure	204,883,687			
422,142,698 TOTAL	TOTAL	204,885,569	422,142,698 TOTAL	TOTAL	204,885,569

DIRECTOR





## RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2020 NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI **ENDOWMENT FUND**

3,482,067,047	TOTAL	2,050,406,874 TOTAL	3,482,067,047	TOTAL	2,050,406,874   TOTAL
				v	
2,748,929	SBI	)		Sundry Debtors	-
	Closing Balance:		95,207,720	367,451,064 Misc. Receipts	367,451,064
				Other Incomes	
				e e	
			59,112,649	67,111,585 Interest Received	67,111,585
	e a				
1,882	53 Miscellaneous Expenses	53	3,327,746,678	1,609,600,535 Investment Encashed	1,609,600,535
	Other Expenses				
				SBI	6,243,690 SBI
3,479,316,236	2,050,406,821 Investment during the year	2,050,406,821		Opening Balance	
Current Year 2019- 2020	Payments	Current Year 2019- Previous Year 2018- 2020 2019	Current Year 2019- 2020	Receipts	Previous Year 2018- 2019
(Amount in Rupees)					

HAAN/Waku DY. REGISTRAR (ACCOUNTS)

DIRECTOR

INTERNAL AUDITOR

ACCOUNTS OFFICER

# Financial Statement for the Financial Year

2019-2020

### BCPAAA

(Boarding Charges for Participants & Alluminies Amenities)

- 1. Balance Sheet
- 2. Income & Expenditure Account
  - 3. Receipts & Payments Account (With All Schedules)



# national institute of industrial engineering Vihar Lake, Mumbai – 400 087

DIRECTOR



## NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING BALANCE SHEET AS AT 31ST MARCH, 2020



SOURCES OF FUNDS         Schedule Current Year No.         Current Year No.         Previous Year 2019-20           CORPUS / CAPITAL FUND         1         51,498,754         48,811,659           DESIGNATED / EARMARKED / ENDOWMENT FUNDS         2         990,735           CURRENT LIABILITIES & PROVISIONS         3         2,589,316         2,592,502           TOTAL         TOTAL         55,078,805         52,394,896				(Amount in Rupees)
ND         No.         2019-20         2018-           ND         1         51,498,754         48           RKED / ENDOWMENT FUNDS         2         990,735         48           ? PROVISIONS         3         2,589,316         2           TOTAL         55,078,805         52,	SOLIDCES OF FLIMES	Schedule	Current Year	Previous Year
ENDOWMENT FUNDS         1         51,498,754         48           ISIONS         3         2,589,316         2           TOTAL         55,078,805         52,	SOUNCES OF FOINDS	No.	2019-20	2018-19
ENDOWMENT FUNDS         2         990,735           ISIONS         3         2,589,316         2           TOTAL         55,078,805         52,	CORPUS / CAPITAL FUND	1	51,498,754	48,811,659
3 2,589,316 TOTAL 35,078,805 55		2	990,735	990,735
55,078,805	CURRENT LIABILITIES & PROVISIONS	3	2,589,316	2,592,502
	TOTAL		55,078,805	52,394,896

30NI II JO NOITVOI INGE	Schedule	Current Year	Previous Year
APPLICATION OF FUNDS	No.	2019-20	2018-19
FIXED ASSETS	4		
Tangible Assets		4,757,039	4,951,413
Intangible Assets			ř.
Capital Work In Progress			1
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5		
Long Term		C	
Short Term		3	X
INVESTMENTS - OTHERS	9	42,395,513	39,442,159
CURRENT ASSETS	7	6,580,567	7,305,035
LOANS, ADVANCES & DEPOSITS	8	1,345,686	696,289
TOTAL		55,078,805	52,394,896

Phank // a du DY.REGISTRAR (ACCOUNTS)

INTERNAL AUDITOR



DIRECTOR

INTERNAL AUDITOR



## INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2020 NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING

BCPAAA (BOARDING CHARGES FOR PARTICIPANTS & ALLUMINIES AMENITIES)

			(Amount in Rupees)
Particulars	Schedule No.	Schedule No. Current Year 2019-20	Previous Year 2018-19
INCOME			
Academic Receipts	6	9	,
Grants / Subsidies	10		
Income From Investment	11	2,441,925	2,363,466
Interest Earned	12		
Other Income	13	2,250,891	218,204
Prior Period Income	14	1	102,291
TOTAL (A)		4,692,816	2,683,961
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)	15	28,349	1,880,675
Academic Expenses	16		
Administrative and General Expenses	17	1,779,998	2,694,365
Transportation Expenses	18		ī
Repairs & Maintenance	19	Ü	
Finance Costs	20	1	
Depreciation	4	194,374	194,374
Other Expenses	21		1
Prior Period Expenses	22	3,000	
Total (B)		2,005,721	4,769,414
Balance being excess of Income over Expenditure(A-B)		2,687,095	(2,085,453)
Transfer to / from Designated Fund			
Building Fund		*	
Others(Specify)			
Balance Being Surplus / (Deficit) carried to Capital Fund		2,687,095	(2,085,453)
			1





AR ENDED 31ST MARCH, 2020	S & ALLUMINIES AMENITIES)	
RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEA	BCPAAA (BOARDING CHARGES FOR PARTICIPANTS	
No.	NITIE CONTRACTOR	

					(Amount in Rupees)
RECEIPTS	Current Year	Previous Year	PAYMENTS	Current Year	Previous Year
	2019-20	61-8107		07-6107	2018-19
I. Opening Balances			I. Expenses		
a) Cash Balances			a) Establishment Expenses	678,023	1,880,675
b) Bank Balance			b) Academic Expenses		
i. In Current Accounts			c) Administrative Expenses	1,710,285	2,604,072
SBI	1,163,577	314,973	II. Investments and Deposits made		
ii. In Deposit Accounts			a) Out of Earmarked/Endowments funds		
iii. Savings accounts			b) Out of own funds (Investments - Others)	150,015,361	175,653,322
			III. Expenditure on Fixed Assets and Capital Works - In -		
II. Grants Received		20	Progress		
a) From Government of India			a) Fixed Assets		
b) From State Government			b) Capital Work-in-Progress		
c) From other sources			IV. Other Payments		
III. Academic Receipts			a) Telephone Expenses	104,094	116,240
IV. Income on Investments from			b) Newspaper & Magazine Expenses	36,824	31,941
a) Earmarked / Endowment funds			c) UBP Expenses		20,786
b) Other Investments	2,253,541	2,163,653	d) Prior Period Expenditure	3,000	60,741
V. Investments encashed	147,062,007	178,922,738	e) Sundry Creditors	3,186	1,011,272
VI. Other income			f) Others	664,966	925,417
a) Accrued Interest	199,813	572,113	V. Closing Balances		
b) Prior Period Income		163,032	a) Cash in hand		
c) Others	2,975,910	1,331,534	b) Bank balances		
			i. In Current Accounts		
			SBI	439,109	1,163,577
			ii. In Deposit Accounts	1	
			iii. Savings accounts		
TOTAL	153,654,848	183,468,043 TOTAL	TOTAL	153,654,848	183,468,043

















# Financial Statement for the Financial Vear

## 2019-2020

# Director discretionary fund (ddf)

- 1. Balance Sheet
- 2. Income & Expenditure Account
  - 3. Receipts & Payments Account



# national institute of industrial engineering Vihar Lake, Mumbai – 400 087



## NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI BALANCE SHEET AS AT 31ST MARCH, 2020

DIRECTOR DISCRETIONARY FUND (DDF)

14,082,363	TOTAL	12,798,463 TOTAL	14,082,363	TOTAL	12,798,463 TOTAL
884,752	SBI	32,917			
	Bank Balance				
002'99		136,500			
(000'02)	(96,500) Less: Received back during the year	(96,500)		8	
r	45,000 Add: Given during the year	45,000			
136,500	188,000 Opening Balance	188,000			
	Loans & Advances				
12,635,934		12,105,518			
(38,868,742)	(47,712,329) Less: Encashed during the year	(47,712,329)			
39,399,158	48,917,847 Add: Invested during the year	48,917,847			
12,105,518	10,900,000 Opening Balance	10,900,000			
	Investment				v
			'	Reserves & Surplus	1
495,177		523,528			
(125,278)	(484,914) Less: Last year	(484,914)	14,082,363	12,798,463 Closing Balance	12,798,463
96,927	Add: During the year	125,278	,	Less: Excess of Expenditure over Income	
523,528	883,164 Opening Balance	883,164	1,283,900	666,688 Add: Excess of Income over Expenditure	666,688
	Interest Accrued		12,798,463	12,131,775 Opening Balance	12,131,775
				Corpus Fund	
Current Year 2019-20	ASSETS	Previous Year 2018-19	Current Year 2019-20	LIABILITIES	Previous Year 2018-19
(Amount in Rupees)		Control of the Contro	Contract of the Contract of th		THE R. P. LEWIS CO., LANSING MICHIGAN PRINCIPLE ST. LEWIS CO., LANSING, SPICE STREET,





DIRECTOR







by. REGISTRAR (ACCOUNTS)





Add: Tax recovered on interest - Refund to be obtained (484,914) Less: Interest accrued during previous year 125,278 Add: Interest accrued during the year REGISTRAR Consultancy Fees Transfer of Funds

747,399 TOTAL

1,502,038

1,283,900

666,688 Excess of Income over Expenditure

747,399 TOTAL

Other Income

747,399

204,740 1,263

784,714

Interest received during the year Interest earned on Investment

1,107,035

12,135

Other Miscellaneous Expenses

Out of Pocket Expenses

20,015

60,000 Admn. Misc. Expenses Consultancy Share

Misc. Expenses

969

Interest Credited to DDF

96,927

(Amount in Rupees)

**Current Year** 

Income

**Previous Year** 2018-19

**Current Year** 

Expenditure

**Previous Year** 2018-19

2019-20

2019-20

(125,278)

756,363

745,675

1,502,038

DIRECTOR

INTERNAL AUDITOR

ACEQUNTS OFFICER







## RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2020 NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI **DIRECTOR DISRETIONARY FUND (DDF)**

(Amount in Rupees)

Previous Year		Current Year	<b>Previous Year</b>		Current Year
2018-19	RECEIPTS	2019-20	2018-19	PAYMENTS	2019-20
	Opening Balance				
160,611	SBI	32,917	48,917,847	Investment during the year	39,399,158
				Other Misc. Expenses	
47,712,329	47,712,329 Investment Encashed	38,868,742	45,000	Refund of Loans & Advances	1
			20,015	Out of Pocket Expenses	12,135
	Interest Received		000'09	Admn. Miscellaneous Expenses	204,740
622,121	Interest on Investment	659,436	969	Miscellaneous Expenses	1,263
484,914	Accrued Interest	125,278	ĸ	Consultancy Share	1.
			r.	Transfer of Funds	10
	Other Income				
1	Consultancy Fees	-			
96,500	Loans & Advances	70,000			
1	Consultancy Share			Closing Balance	
ı	Transfer of Funds	745,675	32,917	SBI	884,752
49,076,475 TOTAL	TOTAL	40,502,048	49,076,475 TOTAL	TOTAL	40,502,048

Mary Marku DY. REGISTRAR(ACCOUNTS)









ACCOUNTS OFFICER



### INSTITUTE - EXTRACT IN FORM 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

Name of the Grantee Institution NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING

YES OWNERSHIP VESTS WITH THE GOVT.

FOR INFRASTRUCTURAL FACILITIES Brief Purpose of the grant

Whether any condition regarding the right of: ownership of Govt. In the Property or other

assets acquired out of the grant was incorporated

in the grant in aid sanction

Purpose for which utilized at present FOR ACQURING EQUIPMENT

Encumbered or not N. A.

Reason and authority if any for disposal **OBSOLETE** 

Treason and additionty I		JSAI . ODSOLETE		·		
No. and date of sanction	Amt. of the San. Grant	Particulars of Assets	Value of Asset as on 31.3.2020	Disposed	Amt. realized on disposal	Remarks
Plan Euip& Films 2019-20/01 dt. 30.4.2019	1,79,616/-	Daikin 8.5 TR Ductable AC	172182/-			
CPSC/CCTV/2019- 20/01	2,43,198/-	18.5 Inch Samasung LED Screebn	243198/-			
CPSC/Water Dispenser/2019-20/01 dt. 3.9.2019	1,51,512/-	Water Dispenser with Provision of Dispensing Normal, Hot and Cold Water Voltas	151512/-			
Note: S&T/CCTV/ NG/2019-20 dt. 04.09.2019	13,688/-	CCTV 4U Rack & 2U Rack	13688/-			
Note: S&T/CCTV/ NG/2019-20 dt. 11.09.2019	23,600/-	CCTV 4 Mtr. Pole	23600/-			
Admn/DO/I Phone 2019-20/08	68,900/-	Apple I Phone ii Black 128 GB	68900/-			
CPSC/Admn/Photocopy Machine/2019-20	1,06,499	Photocopy Machine Digital Multifunctional System	106499/-			
CPSC/Water Dispenser/2019-20/002	10,100/-	Water Dispenser with Provision of Dispensing Normal, Hot and Cold Water Voltas	10100/-			



No. and date of sanction	Amt. of the San. Grant	Particulars of Assets	Value of Asset as on 31.3.2020	Disposed	Amt. realized on disposal	Remarks
CPSC/Acd/Photocopier Machine/2019-20/005	4,99,500/-	Photocpy Machine Sharp MX-4070N/MX-4070V	499500/-			
CPSC/Xerox Machine/ BS/2019-20/06 dt. 17.12.2019	4,98,515/-	Xerox MFD Attalink C8045	498515/-			
Plan Equi & Films 2019-20/04	61,605/-	Mitsubishi 1.5 TR Inventor Split AC	61605/-			
Plan Equipment & Films /19-20/03	90,072/-	SHP Kirloskar Borwell Submersible Pumpset KS4E 55021 SHP 3 PH/21 Stage	82992/-			
Equipment Estate/19-20/01	88,117.68	Successor Board	83922/-			
CPSC/Water Dispenser/ B&S/2019-20/07	15,980/-	hot or Cold Water Dispensor Voltas	15980/-			
NITIE/PGPH/Student Welfars/2019-20/06	3,63,000/-	Washing Machines	362999/-			
Plan Equi & Films 2019-20/02	1,10,936/-	Power LED Based flood Light fitting	110936/-			
CPSC/Photocopier Machine Library/2019-20/06	1,35,256/-	Xerox Versalink B7025	135256/-			
CPSC/A/cs/Photocopy Machine /2019-20/009	3,46,909/-	Sharp MX-m5050	346909/-			
cpsc/HP Laser Jet/ RO/19-20/01	39,199/-	Desktop Computer i5 7500/44B/win 10	38900/-			
CPSC/ Dispensary/2019-20	2,13,920/-	Comen M-Para Patient Monitor STAR 8000H B613104 Heartstert FRX Dfibrillator	2,13,920/-			
Library/2019-20 dt. 1.8.2019	5,33,333.74	Double Side K.D. Book Racks	533334/-			
18/NLB /2019-20 dt. 9.8.2019	13,159/-	Godrej Book Rack Single Side	13159/-			
ALB/F&F/2019-20	80,04,558.80	WOA001893-56101706 SD00203 APO Unlearn with Groutg 1350W woa 00436 56101522 SD1101/ Diva 7046R Chair	60156/-			



No. and date of sanction	Amt. of the San. Grant	Particulars of Assets	Value of Asset as on 31.3.2020	Disposed	Amt. realized on disposal	Remarks
NITIE/PGPH2019- 20/04	1,74,699	Green Com. Ecotek Plywood	174698/-			
18/nlb-cpsc/2019-20	2,13,333/-	Metal Double Side Book Rak	213330/-			
CPSC/SRIC/ Steel filing Cabinet/ 2019-20/001	88,500/-	Steel Filing Cabinets	88500/-			
CPSC/SRIC/ Steel Almirah/ 2019-20/002	51,600	Cupboard Almirah steel	51600/-			
CC/Desktop/Gem/	59,29,800/-	Lenovo V530-17/10 TWS 0D200 Desktop Inter care 17 8th gen, 8gb ram	5929800/-			
CC/MFP/2019-20/ACT/1 dt. 1.7.2019	17393/-	Dell LED Monitor	17393/-			
CC/MFP2019-20/ACT/2	21984/-	HP Laser Jet Pro M128fn Printer	21984/-			
CCHP Laser Jet / ro/2019-20/01	51,330	HP CLJ Pro MFP M181 FW Printer	51330/-			
307/CPSC/CC/Wi-Fi/ ALB		Wi-Fi Services at ALB	9517587/-			
CPSC/CC/ACD/2019-20	69,630/-	HP Desktop 280G4 (i7) Monitor HP 21.5	69630/-			
CC/SW/2019-20/1	90000/- + 18 GST	Typeset University Solution compising (License)	1062000/-			
		HP Laser Jet Pro M128fn Multifunctin Printer	22300/-			
cc/19-20/com/PRN/1	1,16,338/-	<ol> <li>Dell Optiplex Desktop 7070 MT</li> <li>Ram for mini Tower 8GB</li> <li>Dell Monitor 27" SE2719H</li> <li>HP Color Lazerjet Printer</li> <li>HP B/W Printer M202 dw</li> </ol>	161338/-			
CC/SW/2019-20/2	22,80,220/-	Matlab Full Suite (All Toolbokes Unlimited Access)	2280220/-			





No. and date of sanction	Amt. of the San. Grant	Particulars of Assets	Value of Asset as on 31.3.2020	Disposed	Amt. realized on disposal	Remarks
CC/SW/2019-20/3		Anylogic Iniversity Research Team License	1517385/-			
CC/SW/2019-20/4	19,25,337/-	IBM SPSS Stalistic Base	1925337/-			
CPSC/ Placement/ 2019-20/7	1,45,000/-	mUni Seagull Platform Services for Students Campus Placement	141600/-			
CC/SW/2019-20/	10,36,040/-	Quik Heal Antivirus EPS Fresh License	1036040/-			
18/Libsys/2018-19	4,15,950/-	License fee for Upgradation to Web centric	83200/-			
CC/WIFI/19-20/4	1,92,930/-	1) LIC-ENT Meraki MR Enterprise Enterprise License 2) MR42-HW Meraki MR 42 Cloud Managed AP 3) AIR PWRINJ6 Power Injector	192930/-			
		Total	29154630/-			

### **ANNEXURES**



Annual Report 2019-20





### ANNEXURES

## ANNEXURE I : 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 31-03-2020

Number of	in Position		1	19	18	9	5 5		1	1	1	1	2
No.of	Posts		1	0.4	40				1	1	2	2	4
Group of Post	Group-B Group-C Group-D Unclassified		A	A	A	A	А	A	A	A	А	А	В
	Super- nume- rary		0	0	0	0	0	0	0	0	0	0	0
f Post	Tempo- rary		0	0	0	0	0	0	0	0	0	0	0
Status of Post	Regular		1	16	27	14	14	14	1	1	2	2	4
	Gazetted /Non-Gaz		* N.G.	* N.G.	* N.G.	* N.G.	* N.G.	* N.G.	* N.G.	* N.G.	* N.G.	* N.G.	* N.G.
Level			17	14A	13A2	12	11	10	12	11	11	11	2
7 CPC Pay	(MIII MAA.)		225000 Fixed	159100-220200	139600-211300	101500-167400	84800-117200	70900-98200	78800-209200	67700-208700	67700-208700	67700-208700	44900-142400
Designation		ACADEMIC	DIRECTOR	PROFESSOR	ASSOCIATE PROFESSOR	ASSISTANT PROFESSOR GR.I	ASSISTANT PROFESSOR GR.II	ASSISTANT PROFESSOR GR.II	MANAGER, COMPUTER CENTRE	LIBRARY & INFO. OFFICER	SYSTEMS DESIGNER	SENIOR PROGRAMMER	PROGRAMMER
Sr.	j E	-	П	2	3	4	5	9	2	8	6	10	11

<sup>\*</sup> Non-Gazetted

<sup>\*\*</sup> Academic Pay



## ANNEXURE II: 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 31-03-2020

Z	Designation	7 CPC Pay	Level		Status of Post	Post	Group of	No. of	Number of
	of the Post in Full	(Min Max.)	Gazetted / Non-Gaz.	Regular	Тетрогагу	Supernumerary	Post Group-A Group-B Group-C	sanctioned Posts	Employees in Position
	NON-ACADEMIC								
-	REGISTRAR	144200-218200	14	* N.G.	1	0	A	1	1
2	C.O.E.	78800-209200	12	* N.G.	1	0	A	1	1
3	DEPUTY REGISTRAR	67700-208700	11	* N.G.	3	0	A	3	1
4	MEDICAL OFFICER	56100-177500	10	* N.G.	1	0	A	1	1
2	ASSISTANT REGISTRAR	56100-177500	10	* N.G.	3	0	A	3	3
9	ACCOUNTS OFFICER	44900-142400	7	* N.G.	1	0	В	1	1
7	HINDI OFFICER	44900-142400	2	* N.G.	1	0	В	1	1
8	SECRETARY TO DIRECTOR	44900-142400	2	* N.G.	1	0	В	1	0
6	SR. SUPERINTENDENT	44900-142400	7	* N.G.	2	0	В	4	1
10	ASST.LIB.&INFO.OFFICER	44900-142400	7	* N.G.	1	0	В	1	1
11	SUPERINTENDENT	35400-112400	9	* N.G.	11	0	В	13	8
12	HINDI TRANSLATOR (SR.)	44900-142400	7	* N.G.	1	0	В	1	0
13	SR.LIB.&INFO.ASSISTANT	35400-112400	9	* N.G.	1	0	В	2	1
14	ASSISTANT	35400-112400	9	* N.G.	6	0	В	12	2
15	NURSE	35400-112400	9	* N.G.	0	0	В	1	1
16	SR. STENOGRAPHER	35400-112400	9	* N.G.	5	0	В	11	3
17	LIB. & INFO. ASSISTANT	35400-112400	9	* N.G.	1	0	В	2	1
18	JR. HINDI TRANSLATOR	35400-112400	9	* N.G.	0	0	В	1	1
19	HOSTEL MANAGER	29200-92300	5	* N.G.	0	0	С	1	0
20	CASHIER	29200-92300	5	* N.G.	1	0	C	1	1

\* Non-Gazetted



Sr.		7 CPC Pay	Level		Status of Post	ost	Group of	No. of	Number of
No.	of the Post in Full	(Min Max.)	Gazetted / Non-Gaz.	Regular	Temporary	Supernumerary	Post Group-A Group-B Group-C	sanctioned Posts	Employees in Position
	NON-ACADEMIC								
21	COMPOUNDER	29200-92300	D	* N.G.	1	0	C	2	1
22	T.O.C.R.	25500-81100	4	* N.G.	2	0	C	2	2
23	JR. STENOGRAPHER	25500-81100	4	* N.G.	1	0	C	2	1
24	U.D.C.	25500-81100	4	* N.G.	12	0	Э	13	10
25	L. D. C.	19900-63200	2	* N.G.	14	0	Э	26	15
26	LIBRARY CLERK	19900-63200	2	* N.G.	3	0	C	4	1
27	DESPATCH RIDER	19900-63200	2	* N.G.	0	0	C	1	0
28	TELEPHONE OPERATOR	19900-63200	2	* N.G.	2	0	С	9	4
29	MULTI TASKING STAFF	18000-56900	1	* N.G.	2	0	D	0	4
30	MISTRY	18000-56900	1	* N.G.	2	0	D	2	0
31	DAFTARY	18000-56900	1	* N.G.	3	0	D	3	2
32	LIB. ATTENDANT	18000-56900	1	* N.G.	3	0	D	4	2
33	BEARER	18000-56900	1	* N.G.	2	0	D	7	2
34	HOSTEL ATTENDANT	18000-56900	1	* N.G.	3	0	D	7	1
35	PEON	18000-56900	1	* N.G.	10	0	D	20	9
36	WATCHMAN	18000-56900	1	* N.G.	2	0	D	12	4
37	SWEEPER	18000-56900	1	* N.G.	10	0	D	19	4
38	MALI	18000-56900	1	* N.G.	1	0	D	2	0
39	ATTENDANT	18000-56900	1	* N.G.	10	0	D	18	2
]	-								

\* Non-Gazetted



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

		THEA		THE AUTONOMOUS BODIES AS ON 31-03-2020	ES AS C	N 31-03-205	0		
Sr.	Designation of the Post in Full	7 CPC Pay (Min Max.)	Level	St	Status of Post	t	Group of Post Group-A	No .of sanctioned	Number of Employees
				Gazetted / Non-Gaz	Regular	Temporary	Group-B Group-C	Posts	in Position
	TECHNICAL								
П	EXECUTIVE ENGINEER	67700-208700	11	* N.G.	1	0	A	1	1
2	VIDEO CAMERAMAN	35400-112400	9	* N.G.	1	0	В	1	0
က	DATA PROCESSING ASST. GR.B	44900-142400	7	* N.G.	0	0	В	2	0
4	TECHNICAL ASST.(SR)	35400-112400	9	* N.G.	1	0	В	2	1
2	JR. ENGINEER	35400-112400	9	* N.G.	2	0	В	3	2
9	TECH. ASSISTANT	29200-92300	5	* N.G.	0	0	С	2	0
7	DATA ENTRY OPR.GR-C	35400-112400	9	* N.G.	2	0	В	2	1
8	DATA ENTRY OPR.GR-B	29200-92300	5	* N.G.	2	0	С	4	0
6	MECH. 'A'	25500-81100	4	* N.G.	4	0	C	5	0
10	DRAUGHTSMAN	25500-81100	4	* N.G.	0	0	С	1	0
11	DATA ENTRY OPR GR-A	25500-81100	4	* N.G.	0	0	C	3	0
12	MECH. 'B'	25500-81100	4	* N.G.	1	0	С	2	1
13	DRIVER	19900-63200	2	* N.G.	9	0	С	6	3
14	PLUMBER	19900-63200	2	* N.G.	2	0	C	2	0
15	MECH. 'C'	19900-63200	2	* N.G.	7	0	C	8	4
16	DUPLICATING OPERATOR	19900-63200	2	* N.G.	2	0	C	2	1
17	PUMP ATTENDANT	18000-56900	1	* N.G.	1	0	D	3	0
18	BUS ATTENDANT	18000-56900	1	* N.G.	1	0	D	2	1
19	MOTOR CLEANER	18000-56900	1	* N.G.	1	0	D	2	1
20	WORKSHOP ATTENDANT	18000-56900	1	* N.G.	1	0	D	1	1

\* Non-Gazetted



### ANNEXURE IV: SUMMARY OF NO.OF SANCTIONED POSTS AND NO. IN POSITION - GROUPWISE

GROUP OF POST	SANCTIONED POST	EMPLOYEES IN POSITION (R+T)			
	ACADEMIC				
A	91	61			
В	4	2			
С	0	0			
D	0	0			
SUB-TOTAL	95	63			
	NON-ACADEMIC				
A	9	7			
В	51	21			
С	58	35			
D	97	32			
SUB-TOTAL	215	95			
TECHNICAL					
A	1	1			
В	10	4			
С	38	9			
D	8	3			
SUB-TOTAL	57	17			
TOTAL	367	175			

R - Regular

T - Temporary



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