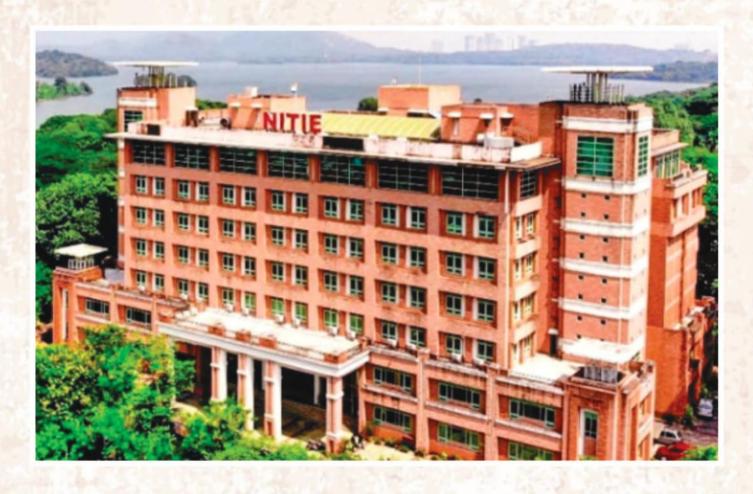
Annual Report 2020-2021

NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING





NITIE for Nurturing Industry Towards Excellence

Annual Report 2020-2021

Annual Report
National Institute of Industrial Engineering
(NITIE), Mumbai
(1 April 2020 – 31 March 2021)



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 the United Nations Development Programme through International Labour Organisation.

NITIE offers a 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 jointly offers a one-year full-time Post-Graduate Program for Executives–Visionary Leadership for Manufacturing (PGPEX-VLFM) with IIT Delhi. This Programme is specially designed for experienced engineers with 5-12 years of experience in the manufacturing domain. NITIE also offers a Fellowship Programme, which is recognized as equivalent to a Ph. D. of an Indian University. In addition, 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 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 align academic concepts with practical problems. By introducing new concepts, techniques and programmes to meet the changing needs of rapid technological development and socioeconomic transformation, NITIE endeavours to equip the managers, administrators and specialists in government, public utilities, industry and other service sectors with the necessary skills and expertise for efficient performance.

NITIE publishes quarterly a professional journal, UDYOG PRAGATI. This journal 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.



INSTITUTE GOVERNANCE

- i. NITIE Board of Governors/Society
- ii. Deans and Faculty Resource
- iii. Administrative Officers



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NITIE BOARD OF GOVERNORS/SOCIETY

Number of Board/Society Meetings held with dates:

Board Meeting No.	Date	Society Meeting No.	Date
156	15.05.2020	-	-
157	18.09.2020	-	-
158	27.01.2021	77	27.01.2021

BOARD OF GOVERNORS (w.e.f. 27th March 2017 to 6th April 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. (Up to 6.11.2020) Shri Shashi Kiran Shetty (w.e.f. 7.11.2020) Chairman, Allcargo Logistics; Chairman, ECU Worldwide; Chairman Gati and Chairman, NITIE 6th Floor Avvashya House, CST Road, Kalina Santacruz (East), MUMBAI – 400 098.
II	Representatives of Central Government 1. Finance	Smt. 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 – 110 001.
	2. Education	Shri Madhu Ranjan Kumar Joint Secretary (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. (Up to 31.08.2020)
		Shri Mohd. Zakaria Khan Yusufzai (w.e.f. 20.01.2021) Senior Development Officer (Engg.) Department of Promotion of Industry & Internal Trade Ministry of Commerce and Industry Room No.468 B1, Udyog Bhawan, New Delhi-110 011



III	Representative of National Productivity Council	Shri Arun Kumar Jha, IES (w.e.f. 02.08.2019) 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, IIT Roorkee) Pro-Chancellor, Professor of Eminence & Chief Mentor The NorthCap University, HUDA Sector 23-A Gurugram-122017 (Upto 16.02.2021)
		Dr Ajeet Singh (w.e.f. 17.02.2021) Regional Officer & Assistant Director Western Regional Office (WRO)-Mumbai 2nd Floor, Industrial Research Building National Institute of Industrial Engineering (NITIE) Campus Vihar Lake, Mumbai-400 087.
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 (Upto 6.11.2020) 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	 Dr A.M. Rawani Professor, NIT Raipur 1-B, Gulmohur, Kailash Residency, Bottle House Road Shankar Nagar, Raipur, CHHATTISGARH – 492001. Prof. Nomesh Bolia Professor (JE & OR) 					
		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 (co-opted by the Board)	 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 Rajiv Jalota, IAS Additional Chief Secretary, Higher & Technical Education Department Government of Maharashtra Madam Cama Road, Mantralaya, Mumbai-400 032 (From 01.09.2020 to 25.11.2020)					
		Shri Om Prakash Gupta, IAS (w.e.f. 26.11.2020) Principal Secretary, Government of Maharashtra Higher & Technical Education, 409, Annexe Building 4th Floor, Mantralaya, Mumbai 400 032.					
X	Ex-Officio-Member	Prof. Manoj Kumar Tiwari Director NITIE					
XI	Two Members of NITIE Teaching Faculty to be co-opted by the Chairman	Prof. Seema Unnikrishnan NITIE 2. Prof. Vijava Gupta					
		2. Prof. Vijaya Gupta NITIE					
XII	Ex-Officio-Secretary	Shri Basavaraj Swamy Registrar NITIE					



NITIE DEANS & FACULTY RESOURCES

DIRECTOR Prof Manoj Kumar Tiwari

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 Iqbal – 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)

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 K Maddulety



- 5. Prof Sanjeev Verma
- 6. Prof Rakesh Verma
- 7. Prof Ranjan Chaudhuri
- 8. Prof S K Md. Rauf Iqbal
- 9. Prof Nikhil K 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 Gauray Kabra (on contract)

Adjunct Faculty

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



ADMINISTRATIVE OFFICERS

Registrar

Shri Basavaraj Swamy

Controller of Examination

Dr Utpal Kumar Debnath

Medical Officer

Dr Smruti R. Patel

Assistant Registrar

- 1. Smt. Sangita Jadhav
- 2. Smt. Nisha Singh (Retd. Lt. Cdr.)
- 3. Shri T M Hariram
- 4. Shri Prashant R Salunkhe (w.e.f 19.08.2020)

System Designer and Officer Incharge, Network Administration

Shri S. M. Venkataramaiah Ramagiri

Officer Incharge, DISC

Smt. Pratima N. Dabholkar

Library & Information Officer

Smt. Bhagyashree E. Kordey (Retired on 30.11.2020)

Dr Utpal Debnath (LIO In-charge) (from 30.11.2020)

Executive Engineer

Shri R.M. Gaikwad (On deputation)

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)

b. Areas and Faculty Activities

- i. Operations and Supply Chain
 Management, Industrial Engineering and
 Manufacturing Systems, and Engineering
 Technology and Project Management
- ii. Analytics & Data Science
- iii. Sustainability Management
- iv. Finance and Economics
- v. Marketing, OB, HR and Strategy

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ACADEMIC PROGRAMMES

i) FELLOW (Doctoral) Programme

Fellow (Doctoral) programme aimed to admit individuals with a sound academic background, strong motivation and potential to become excellent researchers at national and international level. The interdisciplinary nature of the programme stimulated opportunities in exploring the different facets of research areas. The details of fellow (Doctoral) programme are as follows:

- o 40 Students have presented the Credit Seminar.
- o 07 Students have presented Pre-Synopsis Seminar
- o 16 Students have presented Progress Seminar.
- o 13 Students have defended Viva-Voce Examination successfully

ii) Post Graduate Programmes:

a) Post Graduate Diploma in Industrial Engineering (PGDIE)

NITIE offers a two-year residential Post Graduate Diploma in Industrial Engineering, equivalent to a 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 focuses on technomanagerial and cross-functional skills. Admission was offered to the candidates who qualified through the Graduate Aptitude Test in Engineering (GATE). Group Discussion and Personal Interviews were also the criteria for their selection in the programme. Industry Sponsored candidates fulfilling eligibility criteria were also considered for admission.

The 48th batch PGDIE programme (2018-20) have completed their programme and placed in various organizations.

The 49th batch PGDIE programme (2019-21) have completed their 6th quarter, were busy

with their 7th quarter, final project, and placed in various organizations.

The students of the 50^{th} batch PGDIE programme (2020-22) have completed the 3^{rd} Quarter and are busy with their Summer Project.

b) Post Graduate Diploma in Manufacturing Management (PGDMM)

NITIE offers a two-year residential Post Graduate Diploma in Manufacturing Management. Admission was offered to the candidates who qualified through the Graduate Aptitude Test in Engineering (GATE). Group Discussion and Personal Interviews were also the criteria for their selection in the programme. Industry Sponsored candidates fulfilling eligibility criteria were also considered for admission.

The 5th batch PGDMM programme (2018-20) has been completed and placed in various organizations.

The 6th batch PGDMM programme (2019-21) have completed their 6th quarter, were busy with their 7th quarter final project and were placed in various organizations.

The 7^{th} batch PGDMM programme (2020-22) have completed the 3^{rd} 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 was offered to the candidates who qualified through the Graduate Aptitude Test in Engineering (GATE). Group Discussion and Personal Interviews were also the criteria for their selection in the programme. Industry Sponsored candidates fulfilling eligibility criteria were also considered for admission.



The 5th batch PGDPM programme (2018-20) have completed their programme and placed in various organizations.

The 6th batch PGDPM programme (2019-21) students have completed their 6th quarter, are busy with their 7th quarter final project, and are placed in various organizations.

The 7^{th} batch PGDPM programme (2020-22) have completed the 3^{rd} quarter and are busy with their Summer Project.

d) Post Graduate Diploma in Industrial Management (PGDIM)

NITIE offers a two-year residential Post Graduate Diploma in Industrial Management (PGDIM), recognized by the All India Council for Technical Education. The PGDIM addresses all the strategic, tactical and operational issues involved in today's business. understanding of the various perspectives and dimensions of business are at the base of this programme. The programme focuses on Systems, Operations, SCM, Business Policy, Tools and Techniques, Human Resources, Marketing and Finance areas, which help develop 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 was offered to Engineering Graduates who qualify through Common Admission Test (CAT) conducted by the IIMs, followed by Group Discussion and Personal Interviews.

The 25th Batch PGDIM programme (2018-20) have completed their programme and placed in various organizations.

The 26th Batch PGDIM programme (2019-21) students have completed their 6^{th} Module and are busy with their 7^{th} module placed in various organizations.

The 27th Batch PGDIM (2020-22) students have completed the 3^{rd} Module and are busy with their Summer Project.

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

NITIE has launched a Post-Graduate Diploma in Industrial Safety and Environmental Management of two years and is approved by the All India Council for Technical Education. The objective of the Programme is to:

- provide knowledge to improve the quality of industrial safety, environmental practices,
- equip the students with the necessary expertise to manage industrial safety and environmental problems effectively. This would effectively pave the way for cleaner and safer production,
- inculcate a systematic approach in dealing with Industrial Safety and Environmental Management through scientific management methodologies available for decision-making, and
- provide the foundation for specialized studies and research in safety and the environment.

Admission to PGDISEM Programme was offered to Engineering Graduates who qualify through Common Admission Test (CAT) conducted by the IIMs, followed by Group Discussion and Personal Interviews.

The $18^{\rm th}$ Batch PGDISEM (2018-20) have completed their programme and placed in various organizations.

The 19th Batch PGDISEM (2019-21) have completed their 6th Module and are busy with their 7th module and placed in various organizations.

The 20^{th} Batch PGDISEM (2020-22) have completed their 3^{rd} Module and are busy with their Summer Project.



Executive Programme

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

NITIE launched a one-year full-time postgraduate programme for Executives in Visionary Leadership for Manufacturing (PGPEX-VLFM) jointly with IIT, Delhi, from 2017. This programme is specially designed for experienced engineers with 5-12 years of experience in the manufacturing domain. Professionals eager to drive the manufacturing renaissance by putting 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 2020-21 is presented below with gender ratio:

Students admitted to the various programmes

YEAR	FELLOW	PGDIM	PGDISEM	PGDIE	PGDMM	PGDPM	VLFM	
2020-2021	25	273	16	143	42	35	20	

Gender-wise details of admissions:

YEAR	FE	LLO	w	P	GDII	M	PG	DISI	SEM PGDIE			PGDMM			PGDPM			VLFM			
	M	F	T	M	F	Т	M	F	Т	M	F	Т	M	F	T	M	F	T	M	F	T
2020- 2021	19	10	0	214	59	0	9	7	0	118	25	0	41	1	0	33	2	0	16	4	0

The number of students who graduated in 2020-2021:

YEAR	FELLOW	PGDIM	PGDISEM	PGDIE	PGDMM	PGDPM	VLFM
2020-2021	14	242	15	108	28	22	NIL

Gender-wise details of graduation:

YEAR	FE	CLLC	w	P	GDI	M	PG	PGDISEM			PGDIE		PGDMM			PGDPM			FELLOW		
	M	F	T	M	F	Т	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
2020- 2021	7	7	0	210	32	0	12	3	0	95	13	0	28	0	0	21	1	0	7	7	0



OPERATIONS AND SUPPLY CHAIN MANAGEMENT

Area Chair: Prof. L. Ganapathy

I. Introduction to Area:

Operations and Supply Chain Management (OSCM Area) is positioned as a strategic, multidisciplinary area dedicated to teaching, carrying out specialised theoretical and applied research, and consultancy related to Operations and Supply Chain Management, Industrial Engineering and Manufacturing Systems, and Engineering Technology and Project Management. This year, three areas, i.e., Operations & Supply Chain Management, Industrial Engineering & Manufacturing System & Engineering Technology & Project Management, were merged and rechristened as Operations & Supply Chain Management.

Operations & Supply Chain Management

Operations management is the business function that focuses on different aspects of work related to the manufacturing and service industries. It broadly optimises various business functions, including sourcing, operations planning, inventory management, store layout developments, distribution channels, logistics, retail, demand forecasting, and order fulfilment, balancing demand and supply. The objectives include:

- To educate and train students & practising executives support their transformation as industry leaders
- 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

Courses offered

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

Industrial Engineering & Manufacturing System

Industrial Engineering and Manufacturing Systems (IEMS) was merged with Operations and Supply Chain Management and Engineering Technology and Project Management to enhance the interdisciplinary effectiveness. The area objective included driving Industrial Engineering and Manufacturing Systems research to enhance national competitiveness in the manufacturing and service sector.

During the year, the faculty members focussed on designing, improving, and optimising:

- Work systems and were firmly entrenched in the philosophy of continuous improvement of various work systems.
- Various traditional and modern methods of organizing production.
- Systems that integrate people, products (or services) and processes.



Courses Offered

Industrial Engineering, Manufacturing Strategy, MCDM, Additive Manufacturing Industrial Engineering, System Dynamics, Ergonomics and Human Factors Engineering, Work System Design, Lean Manufacturing, Facilities Planning, Simulations and modelling analysis, Evolutionary multi-objective optimization techniques

Engineering Technology and Project Management

Engineering Technology and Project Management (ETPM) is an amalgamation of two vital areas, Engineering Technology and Project Management, with the following goals:

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

During the year, the area aligned its objectives to create a competitive edge business strategy with technology management for several businesses through teaching, research, and outreach. In addition, faculty members established student competencies to handle and manage projects and technology for competitive advantage.

The core faculty of the area were active in the following domains of Project Management,

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

The details of each subarea are presented as follows:

Particulars	Operations & SCM, Industrial engineering & manufacturing system & Engineering Technology & Project Management
Number of Faculty members	21
Number of courses offered	75
Total Number of Research students	46
Total no. of fellows ongoing	29
Number of Publications	49
Number of Conferences	02
Number of MDP conducted	07
Number of UBP conducted	02



II. Faculty members and their specializations:

Operations & Supply Chain Management

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

Industrial Engineering & Manufacturing System

Sr. No	Faculty	Designation	Specialization
1.	Prof. Manoj Kumar Tiwari	Professor and Director	Industrial Engineering, Supply Chain Analytics, Operations Management
2.	Prof. KVSS Narayana Rao	Professor	Industrial Engineering, Capital Markets, Financial Modelling
3.	Prof. L. Ganapathy	Professor	Quantitative Methods, Project Management
4.	Prof. Ashok K. Pundir	Professor	Industrial Engineering, Project Management, Supply chain management
5.	Prof. Milind Akarte	Professor	Industrial Engineering, Operations & Supply Chain Management, Manufacturing Strategy, MCDM, Additive Manufacturing
6.	Prof. Padmanav Acharya	Professor	Industrial Engineering, System Dynamics, Project Management, Logistics Supply Chain



Sr. No	Faculty	Designation	Specialization
7.	Prof. S.K. Rauf Iqbal	Associate Professor	Ergonomics and Human Factors Engineering, Work System Design
8.	Prof. Vivek Khanzode	Associate Professor	Industrial Engineering, Operations Management, Lean Manufacturing
9.	Prof. Balkrishna E. Narkhede	Associate Professor	Industrial Engineering, Supply Chain Management, Manufacturing Strategy, Project Management
10.	Prof. Priyanka Verma	Assistant Professor	Industrial Engineering, Supply Chain Modelling, Facilities Planning, Operations, Quantitative Techniques
11.	Prof. Jinil Persis	Assistant Professor	Operations Research, Simulations and modelling analysis, Evolutionary multi-objective optimization techniques

Engineering Technology and Project Management

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. Koteswara Rao Naik B.	Technology Management/IPR	Creativity, IP Management, Technology Management, and Entrepreneurship	
3.	Prof. Ruchita Gupta	Technology Management/ Project Risk Management	Diffusion and Adoption, Technology Transfer and Commercialisation, Technology Forecasting, Technology Entrepreneurship	
4.	Prof. Vivekanand Khanapuri	Project Management / Maintenance Management	Project stakeholder management, Project monitoring and control, Project selection. Maintenance Management, BPR & IT	



III. List of Fellows

Operations & Supply Chain Management

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

Industrial Engineering & Manufacturing System

Sr. No.	Name of Fellow Student	Supervisor/s	Topic of Research
1.	Ashutosh Mishra	Prof Priyanka Verma	Core Retrieval Framework for value creation towards a sustainable economy
2.	Vishwas Dileep Dohale	Prof Milind Akarte/ Prof Priyanka Verma	Quantifying the congruence between the Process Choice Criteria and Production System employed in the manufacturing firm



Sr. No.	Name of Fellow Student	Supervisor/s	Topic of Research
3.	Shashank Kumar	Prof. Balkrishna Narkhede/ Prof. Karuna Jain	Warehouse Management
4.	Vikash Sharma	Prof. Balkrishna Narkhede Prof. Ravindra Gokhale	Manufacturing Strategy
5.	Kirti Nayal	Prof. Balkrishna Narkhede Prof. Rakesh Raut	Food Supply Chain Management
6.	Harshad Chandrakant Sonar	Prof. Milind Akarte Prof. Vivek Khanzode	Evaluating the impact of additive manufacturing on firm competitiveness.
7.	Debasis Haldar	Prof. Rauf Iqbal Prof. Vivek Khanzode	Development of Dynamic Anthropometry Database of Indian Population for Designing Industrial Work Systems
8.	Ramesh Kumar	Prof. L Ganapathy Prof. Ravindra Gokhale	Production-distribution planning in supply chain
9.	Bhawana Rathore	Prof. Ashok Kumar Pundir Prof. Rauf Iqbal	Ergonomics evaluation in glass artware industry
10.	Shreyanshu Parhi	Prof. Milind Akarte Prof. Kanchan Joshi	Investigating the impact of Industry 4.0 on manufacturing performance
11.	Nikhil Suryakant Ghag	Prof. V. B.Khanapuri Prof. Karuna Jain	Work System Design for Complex Automated System
12.	Virendra Kumar Verma	Prof. L Ganapathy Prof. Sachin Kamble	Impact of Additive Manufacturing on Supply Chain performance
13.	Pratik Maheshwari	Prof. Ashok Kumar Pundir Prof. Sachin Kamble	Inventory management of non- instantaneous deteriorating items
14.	Priya Prakash Ambilkar	Prof. Priyanka Verma Prof. Debabrata Das	A study on selection of reverse logistics partner for product returns in closed-loop supply chain
15.	Rajan Kumar Gangadhari	Prof. Vivek Khanzode Prof. Shankar Murthy	Risk Management of Oil and Gas supply chain network using big data
16.	Janak Suthar	Prof. D. Jinil Persis Prof. Ruchita Gupta	Smart factory
17.	Mihir Kulkarni	Prof. D Jinil Persis	Modelling of Smart Manufacturing Factories
18.	Venkata Jagadeeswar Rao Tattikota	Prof. L Ganapathy Prof. V. B. Khanapuri	Application of Project management techniques in a defence R&D organisation



Sr. No.	Name of Fellow Student	Supervisor/s	Topic of Research
19.	Chandrashekhar Vishnu Chaudhari	Prof. Vivek Khanzode Prof. Raut Iqubal	Application of TOC for supplier- buyer relationship in consumer goods environment
20.	Amit Jaywantrao Somwanshi	Prof. Vivek Khanzode Prof. Debabrata Das	Supply chain management
21.	Bhide Amol	Prof. Milind Akarte	Remanufacturing for sustainability
22.	Omkar Khanwilkar	Prof Milind Akarte	Smart Manufacturing
23.	Sabriranjan	Prof Milind Akarte/ Prof Priyanka Verma	Smart Manufacturing

Engineering Technology and Project Management

Sr. No	Fellow	Faculty	Topic
1.	Ajit Kumar	Prof. Koteswara Rao Naik B.	A study on Technology Strategic Planning & Decision
2.	Vilas Kharat	Prof. Koteswara Rao Naik B.	Project Portfolio Management
3.	Madhumita Das	Prof. V. B. Khanapuri	Project Monitoring & Control
4.	Shashank Kumar	Prof. B. E. Narkhede	Warehouse Management
5.	Kavita Bangale	Prof. Kanchan Joshi/ Prof. Ruchita Gupta	Mega Project Complexity
6.	Shreyanshu Parhi	Prof. Milind Akarte/ Prof Kanchan Joshi	Industry 4.0
7.	Pramod Pandey	Prof. V. B. Khanapuri/ Prof. Kanchan Joshi	Undergoing Coursework
8.	Rahul Mishra	Prof. Koteswara Rao Naik B.	Undergoing Coursework
9.	Shikha Sargam	Prof. Ruchita Gupta	Undergoing Coursework
10.	Pratima Bhagat	Prof. Ruchita Gupta	Undergoing Coursework

IV. Publications:

Operations & Supply Chain Management

- Singh, S. Kumar, R., Panchal, R., & Tiwari, M.K. (2021). Impact of COVID-19 on logistics systems and disruptions in food supply chain. *International Journal of production Research*, 59 (7), 1993-2008.
- Akhtar, P., Ullah, S., Amin, S. H., Kabra, G., & Shaw, S. (2020). Dynamic capabilities and environmental sustainability for emerging economies' multinational enterprises. *International Studies of Management & Organization*, 50(1), 27-42.



- Akhtar, P., Osburg, V. S., Kabra, G., Ullah, S., Shabbir, H., & Kumari, S. (2020). Coordination and collaboration for humanitarian operational excellence: big data and modern information processing systems. *Production Planning & Control*, 1-17.
- Sharma, V., Raut, R. D., Mangla, S. K., Narkhede, B. E., Luthra, S., & Gokhale, R. (2021). A systematic literature review to integrate lean, agile, resilient, green and sustainable paradigms in supply chain management. Business Strategy and the Environment, 30(2), 1191-1212.
- Narkhede, B. E., Raut, R. D., Narwane, V. S.,
 & Gardas, B. B. (2020). Cloud computing in healthcare-a vision, challenges and future direction. *International Journal of Business Information Systems*, 34(1), 1-39
- Gedam, V. V., Raut, R. D., Lopes de Sousa Jabbour, A.B., Narkhede, B.E., & Grebinevych, O. (2021). Sustainable manufacturing and green human resources: Critical success factors in the automotive sector. *Business Strategy and the Environment*, 30(2), 1296-1313.
- Digalwar, A., Raut, R. D., Yadav, V. S., Narkhede, B., Gardas, B. B., & Gotmare, A. (2020). Evaluation of critical constructs for measuring sustainable supply chain practices in lean-agile firms of Indian origin: A hybrid ISM-ANP approach. *Business Strategy and the Environment*, 29(3), 1575-1596.
- Bhattacharya, R., Raut, R. D., Gardas, B. B., & Kamble, S. S. (2020). Sustainable partner selection: an integrated AHP-TOPSIS approach. *International Journal of Operational Research*, 39(2), 205-236.
- Inamdar, Z., Raut, R., Narwane, V. S., Gardas,
 B., Narkhede, B., & Sagnak, M. (2020). A systematic literature review with bibliometric analysis of big data analytics adoption from

- period 2014 to 2018. *Journal of Enterprise Information Management.*
- Narwane, V. S., Raut, R. D., Mangla, S. K., Gardas, B. B., Narkhede, B. E., Awasthi, A., & Priyadarshinee, P. (2020). Mediating role of the cloud of things in improving performance of small and medium enterprises in the Indian context. *Annals of Operations Research*, 1-30.
- Mangla, S. K., Raut, R., Narwane, V. S., & Zhang, Z. J. (2020). Mediating effect of big data analytics on project performance of small and medium enterprises. *Journal of Enterprise Information Management*.
- Nayal, K., Raut, R., Priyadarshinee, P., Narkhede, B. E., Kazancoglu, Y., & Narwane, V. (2021). Exploring the role of artificial intelligence in managing agricultural supply chain risk to counter the impacts of the COVID-19 pandemic. The International Journal of Logistics Management.
- Raut, R. D., Gardas, B., Luthra, S., Narkhede, B., & Mangla, S. K. (2020). Analysing green human resource management indicators of automotive service sector. *International Journal of Manpower*.
- Maroli, A. A., Narwane, V. S., Raut, R. D., & Narkhede, B. E. (2021). Framework for the implementation of an Internet of Things (IoT)-based water distribution and management system. Clean Technologies and Environmental Policy, 23(1), 271-283.
- Chirra, S., Raut, R. D., & Kumar, D. (2020). Barriers to sustainable supply chain flexibility during sales promotions. *International Journal* of *Production Research*, 1-19.
- Sharma, V., Raut, R. D., Govindarajan, U.
 H., & Narkhede, B. E. (2021). Advancements
 in urban logistics toward smart, sustainable
 reforms in developing enabling technologies
 and markets. *Kybernetes*.



- Sharma, V., Raut, R. D., Mangla, S. K., Narkhede, B. E., Luthra, S., & Gokhale, R. (2021). A systematic literature review to integrate lean, agile, resilient, green and sustainable paradigms in the supply chain management. *Business Strategy and the Environment*, 30(2), 1191-1212.
- Kumar, R., Ganapathy, L., Gokhale, R., & Tiwari, M. K. (2020). Quantitative approaches for the integration of production and distribution planning in the supply chain: a systematic literature review. *International Journal of Production Research*, 58(11), 3527-3553.
- Gawankar, S. A., Gunasekaran, A., & Kamble, S. (2020). A study on investments in the big data-driven supply chain, performance measures and organisational performance in Indian retail 4.0 context. *International Journal of Production Research*, 58(5), 1574-1593.
- Kamble, S., Gunasekaran, A., & Dhone, N. C. (2020). Industry 4.0 and lean manufacturing practices for sustainable organisational performance in Indian manufacturing companies. *International Journal of Production Research*, 58(5), 1319-1337.
- Sharma, R., Shishodia, A., Kamble, S., Gunasekaran, A., & Belhadi, A. (2020). Agriculture supply chain risks and COVID-19: mitigation strategies and implications for the practitioners. *International Journal of Logistics Research and Applications*, 1-27.
- Ghadge, A., Jena, S. K., Kamble, S., Misra, D., & Tiwari, M. K. (2020). Impact of financial risk on supply chains: a manufacturer-supplier relational perspective. *International Journal of Production Research*, 1-16.
- Bhattacharya, R., Raut, R. D., Gardas, B. B., & Kamble, S. S. (2020). Sustainable partner selection: an integrated AHP-TOPSIS approach. *International Journal of Operational Research*, 39(2), 205-236.

- Sharma, S. (2020). Manufacturing Parameters and Entrepreneurship: Space Consideration. CRC Press.
- Sharma, S. (2020). *Industrial Consultancy:* Operational Focus. Routledge India.
- Sharma, S. (2021). *Inventory Planning with Innovation: A Cost Focus*. CRC Press.

Industrial Engineering & Manufacturing System

- M Maity, A Tolooie, AK Sinha, MK Tiwari, Stochastic batch dispersion model to optimize traceability and enhance transparency using Blockchain, Computers & Industrial Engineering, Vol. 154, 107134, 2021
- A De, A Choudhary, M Turkay, MK Tiwari, Bunkering policies for a fuel bunker management problem for liner shipping networks, European Journal of Operational Research, Vol. 289 (3), 927-939, 2021
- VK Gupta, S Dakare, KJ Fernandes, LS Thakur, MK Tiwari, Bilevel Programming for Manufacturers Operating in an Omnichannel Retailing Environment, IEEE, Transactions on Engineering Management, 2021
- S Singh, B Mahanty, MK Tiwari, IoT and Semantic-Based Manufacturing System in the Era of Industry 4.0, *Industry 4.0 and Advanced Manufacturing*, Pages: 35-45, 2021
- Research paper by Prof. K.V.S.S. Narayana Rao published in a book. The paper was earlier presented in the 2018 Annual Conference of IIIE. "Industrial Engineering 4.0 IE in Industry 4.0 Engineering Systems and Processes" in Advances in Mechanical Engineering in the Era of New Technologies. Copyright © 2020, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, INDIA.pp.414-421.
- Bharsakade, R. S., Acharya, P., Ganapathy, L., & Tiwari M.K, Lean Approach to healthcare



- management using Multi Criteria Decision making, OPSEARCH, 2021
- M Sharma, R Gupta, P Acharya, Analysing the adoption of cloud computing service: A systematic literature review, Global Knowledge, Memory and Communication, Vol. 70, No. 1/2, pp. 114-153, 2020
- A Sasikumar, P Acharya, An operational approach to gauge the lean performance in bias tyre manufacturing: a case study, International Journal of Productivity and Quality Management, Vol. 31 (3), 369-389, 2020
- Balkrishna E. Narkhede, Rakesh D. Raut, Matthew Roy, Vinay Surendra Yadav & Bhaskar Gardas (2020), "Implementation barriers to lean-agile manufacturing systems for original equipment manufacturers: an integrated decision-making approach", The International Journal of Advanced Manufacturing Technology, (2020) 108:3193– 3206, (https://doi. org/10.1007/s00170-020-05486-5)
- Rakesh D. Raut, Ashwini Gotmare, Balkrishna E. Narkhede, Usharani Hareesh Govindarajan & Sanjay U. Bokade (2020), "Enabling technologies for Industry 4.0 manufacturing and supply chain: concepts, current status, and adoption challenges", IEEE Transactions on Engineering Management (EMR), (DOI 10.1109/EMR.2020.2987884)
- Shashank Kumar, Rakesh D. Raut, Vaibhav S. Narwane, Balkrishna E. Narkhede (2020), "Applications of industry 4.0 to overcome the COVID-19 Operational Challenges", Diabetes & Metabolic Syndrome: Clinical Research & Reviews 14 (2020) 1283-1289. (https://doi. org/10.1016/j.dsx.2020.07.010)
- Shashank Kumar, Balkrishna Narkhede & Karuna Jain (2021), "Revisiting the warehouse

- research through an evolutionary lens: a review from 1990 to 2019", *International Journal of Production Research*, DOI: 10.1080/00207543.2020.1867923
- Vikash Sharma, Rakesh Raut, Sachin Kumar Mangla, Balkrishna Narkhede, Sachin Luthra & Ravindra Gokhale (2021), "A systematic literature review to integrate lean, agile, resilient, green and sustainable paradigms in the supply chain management", Business Strategy and the Environment, DOI: 10.1002/ bse.2679
- Rakesh Raut, Vinay Yadav, Naoufel Cheikhrouhou, V.S. Narwane & Balkrishna Narkhede (2021), "Big data analytics: Implementation challenges in Indian manufacturing supply chains", Computers in Industry, DOI: 10.1016/j. compind.2020.103368
- Vijaya Dixit, Priyanka Verma, & Manoj Kumar Tiwari, (2020), "Assessment of pre and postdisaster supply chain resilience based on network structural parameters with CVaR as a risk measure", *International Journal of Production Economics*, 227, 107655. https:// doi.org/10.1016/j.ijpe.2020.107655
- Shishodia, Anjali, Priyanka Verma, and Karuna Jain. "Supplier resilience assessment in project-driven supply chains." *Production Planning & Control (2020)*: 1-19.
- Dohale, Vishwas, Angappa Gunasekaran, Milind M. Akarte, and Priyanka Verma. "Twenty-five years' contribution of "Benchmarking: an International Journal" to manufacturing strategy: a scientometric review." Benchmarking: An International Journal.
- Dixit, Vijaya, Priyanka Verma, and Piyush Raj. "Leveraging tacit knowledge for shipyard facility layout selection using fuzzy set theory." Expert Systems with Applications: 113423.



- Verma, Priyanka, Miral Parikh, and Vijaya Dixit.
 "Role of Industry 4.0 in Project Management" (2020). Published in proceedings of the 5th North American Conference on Industrial Engineering and Operations Management in Detroit, Michigan, USA during August 10-14, 2020. (Available online from November 2020)
- M Akarte, V Khanzode, R Iqbal, MK Tiwari, IE Tools for Boosting Competitiveness in Iron and Steel Industry: A Review, *Transactions of* the Indian Institute of Metals, 1-12, 2021
- HC Sonar, VV Khanzode, MM Akarte, Ranking of Additive Manufacturing Implementation Factors using Analytic Hierarchy Process (AHP), *Journal of The Institution of Engineers* (*India*): Series C 102 (2), 421-426, 1, 2021
- S Parhi, K Joshi, M Akarte, Smart manufacturing: a framework for managing performance International Journal of Computer Integrated Manufacturing 34 (3), 227-256, 2021
- BS Gandhare, MM Akarte, Benchmarking maintenance performance in select agrobased industry, *Journal of Quality in Maintenance Engineering*, 2020.
- HC Sonar, V Khanzode, M Akarte, A conceptual framework on implementing additive manufacturing technology towards firm competitiveness, *International Journal of Global Business and Competitiveness* 15 (2), 121-135, 2, 2020
- HC Sonar, V Khanzode, M Akarte, Investigating additive manufacturing implementation factors using integrated ISM-MICMAC approach, *Rapid Prototyping Journal* 26 (10), 1837-1851, 7, 2020
- V Dohale, A Gunasekaran, MM Akarte, P Verma, Twenty-five years' contribution of "Benchmarking: an International Journal"

- to manufacturing strategy: a scientometric review, *Benchmarking: An International Journal* 5, 2020
- V Dohale, M Akarte, S Gupta, V Verma, Additive Manufacturing Process Selection Using MCDM, Advances in Mechanical Engineering, 601-609

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- Lakal, N., Joshi, K., & Jain, K. (2020).
 Development of engineering education service quality model from faculty perspective. *Total Quality Management & Business Excellence*, 31(13-14), 1442-1453.
- Parhi, S., Joshi, K., & Akarte, M. (2021).
 Smart manufacturing: a framework for managing performance. *International Journal of Computer Integrated Manufacturing*, 34(3), 227-256.
- Joshi, K., & Khare, P. (2021). The Role of Local Connections in Network Configuration: A Case of Social Enterprise in India. *Journal* of Social Entrepreneurship, 1-27. Prof. Koteswara Rao Naik B.
- Sharma, M., Gupta, R., & Acharya, P. (2020). Prioritizing the critical factors of cloud computing adoption using multi-criteria decision-making techniques. *Global Business Review*, 21(1), 142-161.
- Sharma, M., Gupta, R., & Acharya, P. (2020).
 Factors influencing cloud computing adoption for higher educational institutes in India: a fuzzy AHP approach. *International Journal* of Information Technology and Management, 19(2-3), 126-150.

V. Outreach:

Details are given in Outreach section.



ANALYTICS AND DATA SCIENCE

Area Chair: Prof. Rakesh Verma

I. Introduction to the area

During the year, the area aimed to prepare the students to conceptualize, design, analyze, develop, and deliver leading-edge information systems that support business processes and data-driven decision-making.

ADS achieved these objectives by extending and integrating knowledge from Industrial Engineering, Information Systems, Enterprise Systems, Quantitative Techniques, Operations Research, Statistics, Artificial intelligence, and Business Analytics.

The area collected and analysed up-to-date business information from the customers, competitors, and business partners. Faculty members explored advanced tools and technologies to enable business organizations to meet the business environment's volatility, uncertainty, complexity, and ambiguity. Faculty members honed among the students the much needed quantitative/analytical and technical skills.

Courses Taught

Quantitative Technique for Decision Making, Operations Research, Data-driven decision-making, Data analytics, Decision support systems, Enterprise resource planning, or Modelling, Decision making under uncertainty, E-Commerce for Business, Multi-channel CRM, Business Statistics, IT in Manufacturing, Data Analytics and Knowledge Management, IT Consultancy Management, Business Analytics using data mining, Advance Statistics, Multi-Objective Optimization, Quality Management, Machine Learning, Information Systems and Artificial Engineering, Digital Strategy.

Particulars [For the academic year 2020-2021]	Analytics & Data Science
Number of Faculty members	6
Number of courses offered	17
Total Number of Research students	11
Total no. of fellows awarded/thesis submitted	02
Total no. of fellows ongoing	11
Summer Internship Student handled	95
Six-month PGDIE/MM project handled	23
Number of Publications	8
Number of MDP conducted	3
Number of UBP conducted	1



II. List of Area Members and their Specialization

Sr. No.	Faculty	Designation	Focus Area
1.	Prof. R. Ramaswamy	Professor	Data Structure and Algorithm
2.	Prof. Hema A Date	Professor	Business Intelligence, Knowledge Management, Business Analytics, E-Commerce, ERP, DSS, ES, Software Engineering, IT Consulting, Industrial Engineering.
3.	Prof. Purnima S. Sangle	Professor	Digital Transformation, Business Analytics, Data Mining, Business Value of IT, Enterprise Systems, ERP, CRM Technology Adoption, Multichannel CRM, IoT.
4.	Prof. Rakesh Verma	Associate Professor	OR Application to Healthcare, Manufacturing, Fuzzy Application to Engineering and Business, Multi-Objective Optimization, Decision Making under Risk and Uncertainty, Machine Learning, Data Analytics, Business Analytics, Data Structure and Algorithm
5.	Prof. S C Panandikar	Associate Professor	Advanced Statistics, Multi-Variate Analysis, Operations Research
6.	Prof. Debabrata Das	Assistant Professor	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.

III. Fellow Students in ADS Area:

Sr. No.	Fellow	Faculty	Торіс
1.	Ayushi Chauhan	Prof. Purnima Sangle	Analytics and Data Science
2.	Minati Rath	Prof. Hema Date	Designing of hybrid Quantum Classical computing Models for Machine Learning.
3.	Puja Ahuja	Prof. Purnima Sangle	A Study of Impact of Omnichannel on Customer Reference
4.	Mohd Juned	Prof. Purnima Sangle	Designing A supply chain Network For Responsive Healthcare System
5.	Prachi Shriram Gurav	Prof. S.C. Panandikar	Framework for HER Implementation
6.	Vijaya Pradip Patil	Prof. Hema Date	Application of Artificial Intelligence in forecasting the Financial Assessment of Motion Picture
7.	Vandana Yogesh Kadam	Prof. Rakesh Verma	Improving Cyber Intrusion Detection and Developing Dynamics Based Generalised Cyber Security Quantification Model



Sr. No.	Fellow	Faculty	Торіс
8.	Sudhanshu Singh	Prof. Rakesh Verma	Pathways for Strengthening of Healthcare Systems: Integrating Issues with Process Mining for enhanced Decision Making
9.	Suvechcha Sengupta	Prof. S.C. Panandikar	Optimizing Value and Entropy for Single and Multiple Attributes Games with Application in Supply Chain Management
10.	Rajesh Kumar Arora	Prof. Hema Date	A study on knowledge Management Practices in Indian Steel Industry
11.	Sanjay Nagtode	Prof. Hema Date	Hybrid Intelligent System for Credit Scoring: An Application to Retail Banking - Asset Classification and Model Validation

IV. Publications

- Tanksale, A. N., Das, Debabrata., Verma, P., & Tiwari, M. K. (2021). Unpacking the role of primary packaging material in designing green supply chains: An integrated approach. *International Journal of Production Economics*, 236, 108133.
- Sahu, A. K., Padhy, R. K., Das, Debabrata., & Gautam, A. (2021). Improving financial and environmental performance through MFCA: A SME case study. *Journal of Cleaner Production*, 279, 123751.
- Bhanot, D., Kathuria, V., & Das, Debabrata. (2021). Can institutional innovations in agri-marketing channels alleviate distress selling? Evidence from India. *World Development*, 137, 105202.
- RK Arora, H Date (2021) Knowledge Management Practices in the Indian Steel Industry (A Comprehensive Analysis of Public Sector Units), *Journal of Information & Knowledge Management*, 20 (01), 2150009
- PN Dabholkar, H Date (2021), Validation of objective-based ERP value factors measuring intangible benefits-Indian higher education context, *International Journal of Business Information Systems*, 37 (1), 1-28
- Singh, S., Verma, R., and Koul, S. (2021) A collaborative method for simultaneous operations: case of an eye clinic. *OPSEARCH*, pp 1-21.
- Singh, S., Verma, R., and Koul, S. (2021) A data-driven approach to shared decision-making in a healthcare environment.) https://doi.org/10.1007/s12597-021-00543-3)
- Singh S., Verma R., Koul, S. (2020)/ Big Data Platform Selection at a Hospital : A Rembrandt System Application. (Published in *Advances in Intelligent Systems & Computing, AISC*, Vol.1189)

V. Outreach

Details are given in the outreach section.



SUSTAINABILITY MANAGEMENT

Area Chair: Prof. Shankar Murthy

I) Introduction to Area:

During the year, the area interfaced with engineering and management aspects in the Environment and Safety domain with the broader objective to excel in Environmental Management, Safety, CSR, and Sustainability. The area focused on developing strategies and methods for sustainable growth of the industry while improving its environmental performance and minimizing its ecological footprint and impacts. Faculty members captured opportunities to optimise stakeholder preferences (industrial associations, government policies, subject experts), alumni feedback, and study of leading institutions offering the programme in the sustainability domain.

Courses offered

Sustainable development for business, Sustainable manufacturing, Environment and Safety Legislation, Noise and E-waste management, Fire and Safety Managements, Disaster management, Energy management, EIA for developmental projects, Business strategy for sustainability, Shop floor waste management, Business strategies for climate change, Clean Development Mechanism and climate change, Process Safety Management, SHE audits system, Environmental Modelling, Sustainability Laboratory, Business strategies for climate change, Strategic CSR, Sustainable operation and management, Sustainability Analytics, Design Thinking for Sustainability, Environmental Accounting, Sustainable Finance and Investment or Climate change, Finance Behaviour Based Safety (BBS), Business Certificates for Sustainability, Life Cycle Analysis, Integrated Water Resources Management, Stakeholder Analysis and Management, Sustainable Supply chain management, Sustainable Business Models, Low carbon Logistics management

Particulars	Sustainability Management
Number of Faculty members	6
Number of courses Offered	31
Total Number of Research students	7
Total no. of fellows awarded	3
Total no. of fellows ongoing	6
Summer Internship Student handled	120
Six-month PGDIE/MM project handled	12
Number of Publications	27
Number of Conferences	7
Number of MDP conducted	2
Number of UBP conducted	4

The area members had a series of meetings for the repositioning of the PGDISEM programme. Given changing business needs, our earlier programme PGDISEM was rechristened as Post graduate Diploma in Sustainability



Management [PGDSM]. Area members aligned their teaching and research to cater to the evolving needs of the Indian Industry. They deliberated on aligning the PGDSM programme:

- with the objectives of NEP and UNSDGs.
- for managing natural resources and ecological services to cater to the needs of United Nations Global Compact, Governments, and industrial associations like CII, FICCI, and ASSOCHAM.
- fulfilling major gaps in management education and have encouraged the B-schools all over the globe to incorporate sustainability issues in their curriculum.
- helping industries and economic activities of the country.

II. Faculty members and their specialisations:

Name	Specialization		
Prof. Seema Unnikrishnan:	Environmental Law and Policy, Disaster Management, Climate Change and Business, Environmentally Conscious Manufacturing and Life Cycle Analysis, Safety and Environmental legislation		
Prof. Shankar Murthy	Environmental Engineering, Process Safety, Industrial Wastewater Management, Behaviour Based Safety (BBS)		
Prof. Shirish Sangle	Organization and Natural Environment, Sustainability, CSR		
Prof. Anju Singh	Business sustainability, Environmental management, CSR		
Prof. Hema Diwan	Industrial pollution control, EIA, Sustainability management		
Prof. Vidyadhar V. Gedam	Chemical Hazard and Safety, Sustainable Development, Mineral Waste Management, Water Quality Assessment		

III. List of Fellows

Sr. No	Name of Fellow Student	Faculty Guide	Topic of Research
1.	Ms Purva Mhatre	Prof. Seema Unnikrishnan Prof. Vidhyadhar Gedam	Assessment of Implementation of Circular Economy in Built-Environment.
2.	Rohit Panchal	Prof. Hema Diwan Prof. Anju Singh	Modelling Circular Economy Potential of E-Waste Management
3.	Hitesh Kavasia	Prof. Sanjeev Panandikar	To Carry Out the Impact Assessment of Waste Management Aooriacges
4.	Ms Priyanka Kaushal	Prof. Shirish Sangle Prof. Vidyadhar Gedam	Sustainability management
5.	Amol Asthikar	Prof. Shankar Murthy	Identification of Factors Contributing to Black Spots in Urban Areas
6.	Gangadhari Rajan Kumar	Prof. Vivek Khanzode Prof. Shankar Murthy	Analysis and Prediction of Accidents using Big Data Analytics in the Oil and Gas Industry - A comprehensive Literature Review



IV. Publications:

- T V Sivanandhini, Seema Unnikrishnan, Vidyadhar V. Gedam (2021). Planning and optimization framework for lubricant supply chain with a focus on spent oil-A circular economy approach. *International journal of* sustainable engineering. (IF-1.3, ESCI, Scopus indexed, Publisher- Taylor and Francis). Link: http://dx.doi.org/10.1080/19397038.2021.188 6373.
- Purva Mhatre, Vidyadhar V Gedam, Seema Unnikrishnan, Sanjeev Verma. (2020). Circular Economy in Built Environment-Literature Review and Theory Development. International Journal of Building Engineering (SCIE, IF-3.37, Scopus indexed, Publisher-Elsevier). Link: https://doi.org/10.1016/j. jobe.2020.101995
- Shrivastava, S., & Unnikrishnan, S. (2021).
 Life Cycle Sustainability Assessment of crude oil in India. *Journal of Cleaner Production*, Volume 283, 10 February 2021, 124654
- Shrivastava S, Unnikrishnan S., (2021).
 Life cycle assessment of oil storage unit in India. International Journal Oil, Gas and Coal Technology, Vol. 27.2021, https://doi.org/10.1504/IJOGCT.2021.114861
 Inderscience Publication.
- T V Sivanandhini, Seema Unnikrishnan, Vidyadhar V. Gedam. (2021). Planning and optimization framework for lubricant supply chain with a focus on spent oil-A circular economy approach. *International journal of* sustainable engineering. (IF-1.3, ESCI, Scopus indexed, Publisher- Taylor and Francis). Link: http://dx.doi.org/10.1080/19397038.2021.188 6373.
- Vidyadhar V. Gedam, Rakesh D. Raut, Pragati Priyadarshinee, Sricharan Chirra, Pranav D. Pathak. (2021). Analyzing the adoption barriers for sustainability in the Indian power

- sector. *International journal of sustainable engineering*. (IF:1.3, ESCI, Scopus indexed, Publisher- Taylor and Francis). DOI: https://doi.org/10.1080/19397038.2021.1874072
- Vidyadhar V Gedam; Rakesh D Raut; Ana Beatriz Lopes de Sousa Jabbour, Balkrishna Narkhede, Oksana Grebinevych. (2021).
 Identification of critical success factor of sustainable implementation practices in the context of organizational and human resources management. Business Strategy and Environment (SCIE, IF-5.48, ABDC-A Category, Scopus indexed, Publisher-Wiley).
 DOI: 10.1002/bse.2685
- Purva Mhatre, Vidyadhar V Gedam, Seema Unnikrishnan, Sanjeev Verma. (2020). Circular Economy in Built Environment-Literature Review and Theory Development. International Journal of Building Engineering (SCIE, IF-3.37, Scopus indexed, Publisher-Elsevier). Link: https://doi.org/10.1016/j. jobe.2020.101995
- Pranav Pathak, Vidyadhar V. Gedam, Sunil Deokar, Sanjay Bhagat, Anup Chahande & Pranay Raut (2020). Studies on the removal of Brilliant Green dye using low cost agricultural waste. *Indian J. of Chemical Technology*, Vol. 27, pp. 333-339. (IF:0.5, Scopus indexed, Publisher- CSIR-NISCAIR).
- Urban Microclimate Review Paper: Bherwani, H.*, Singh, A., & Kumar, R. (2020). Assessment methods of urban microclimate and its parameters: A critical review to take the research from lab to land. *Urban Climate*, 34, 100690. doi:10.1016/j.uclim.2020.100690 (SCIE, IF-3.834).
- H Bherwani, S Anjum, A Gupta, A Singh, R Kumar, 2021. Establishing influence of morphological aspects on microclimatic conditions through GIS-assisted mathematical modeling and field observations, Environment, Development and Sustainability, 1-24



Book Chapter:

- Hemant Bherwani*, Suman Kumar, Narendra Kumar, Anju Singh, Rakesh Kumar. 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)
- Purva Mhatre, Rohit Panchal, Anju Singh, Shyam Bibyan, A Systematic Literature Review on the Circular Economy initiatives in the European Union, Sustainable Production and Consumption, Volume 26, April 2021, Pages 187-2021.
- Anju Singh, Mayuri Naik, Circular Economy Potential of E-waste Collectors, Dismantlers, and Recyclers of Maharashtra: A Case Study, Environmental Science and Pollution Research, Environ Sci Pollut Res Int, 2020 Jun; 27(17):22081-22099, doi: 10.1007/s11356-020-08320-3.Epub 2020 Apr 14, Ref.: Ms. No. ESPR-D-19-04040R3.
- S Verma, PK Singh, SK Mishra, VP Singh, V Singh, A Singh, Activation soil moisture accounting (ASMA) for runoff estimation using soil conservation service curve number (SCS-CN) method, *Journal of Hydrology* 589, 125114.
- Panchal, R., Singh, A. and Diwan, H. "Does Circular Economy Performance Lead to Sustainable Development? A Systematic Literature Review", Journal of Environmental Management, Vol 293, 112811, 2021.
- Panchal, R., Diwan, H. and Singh, 2021Book chapter entitled "Economic Potential of Resource Recovery from E-waste" for book "Paradigm in E-waste Management: A vision for a future" in Taylor and Francis publication.

- Hemant Bherwani, Anju Singh and Rakesh Kumar (2020). "Methodologies for Assessment of Urban Micro-Climate", International Workshop on Climate Change and Extreme Events, IIT Mandi, Page 81.
- Hemant Bherwani, Suman Kumar, Amol F. Niwalkar, Anju Singh and Rakesh Kumar. (2020) "Assessment of Increase in Urban Heat Island Intensity of Mumbai City Using Geospatial Methods", IVth International Conference on Sustainable Energy and Environmental Challenges, Best Paper Presentation Award: ACS Publications
- Himani Sonwane, Hemant Bherwani, Anju Singh and Rakesh Kumar. (2020) "Effect of Parking Space and Public Transport Mismanagement on Urban Air Quality" 10th International Congress of Environmental Research, Page 140.
- Rohit Panchal, Anju Singh, Hema Diwan, (2021) Does circular economy performance lead to sustainable development? – A systematic literature review, *Jr.of Environmental Management*, 293, 2021, 112811, ISSN 0301-4797https://doi.org/10.1016/j. jenvman.2021.112811
- Urban Microclimate Review Paper: Bherwani, H.*, Singh, A., & Kumar, R. (2020). Assessment methods of urban microclimate and its parameters: A critical review to take the research from lab to land. *Urban Climate*, 34, 100690. doi:10.1016/j.uclim.2020.100690 (SCIE, IF-3.834).
- H Bherwani, S Anjum, A Gupta, A Singh, R Kumar, 2021, Establishing influence of morphological aspects on microclimatic conditions through GIS-assisted mathematical modelling and field observations, Environment, Development and Sustainability, 1-24
- Hemant Bherwani*, Suman Kumar, Narendra Kumar, Anju Singh, Rakesh Kumar. (2020). 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)

- Anju Singh, Mayuri Naik, Circular Economy Potential of E-waste Collectors, Dismantlers, and Recyclers of Maharashtra: A Case Study, Environmental Science and Pollution Research, Environ Sci Pollut Res Int, 2020 Jun; 27(17):22081-22099, DOI: 10.1007/s11356-020-08320-3.Epub 2020 Apr 14, Ref.: Ms. No. ESPR-D-19-04040R3.
- S Verma, PK Singh, SK Mishra, VP Singh, V Singh, A Singh, (2021) Activation soil moisture accounting (ASMA) for runoff estimation using soil conservation service curve number (SCS-CN) method, *Journal of Hydrology* 589, 125114.
- Panchal, R., Singh, A. and Diwan, H. "Does Circular Economy Performance Lead to Sustainable Development? A Systematic Literature Review", *Journal of Environmental* Management, Vol 293, 112811, 2021.
- Pandey, Chitra & Diwan, Hema. (2021).
 Assessing fertilizer use behaviour for environmental management and sustainability: a quantitative study in agriculturally intensive regions of Uttar Pradesh, India. Environment, Development and Sustainability. 23. 10.1007/s10668-020-00848-1.
- Panchal, R., Diwan, H. and Singh, A. 2021 book chapter entitled "Economic Potential of Resource Recovery from E-waste" for book "Paradigm in E-waste Management: A vision for a future" in Taylor and Francis publication.

V. Faculty Activities

The SM area has conducted more than 105 training Programmes as Unit Based Programmes for the oil sector PSUs like IOC, BPCL, HPCL in Risk Analysis and Disaster Management & Behaviour Based Safety. This year, the area faculty conducted 6 UBP programs for the oil Industry and Accenture on risk Analysis and Emergency Preparedness and Sustainability during this period, and four Management Development Programmes in areas such as "Sustainable Supply Chain Management in Post Covid-19 Era" and "Sustainability Portfolio & Sustainability Analytics."

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 accreditation was again renewed in 2017 for another five 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. This year the area carried out a mapping exercise to map the learning outcomes as per the requirements of IOSH.

5th National Conference on Behavioral Based Safety (BBS)

NITIE Mumbai Sustainability Management Group and Forum of Behavioural Safety (BESAFE) successfully launched the 5th National Conference on Behavioural Based Safety (BBS) on 24th January 2021. The event was graced by Prof. Manoj Kumar Tiwari, Director, NITIE; Dr Harbanslal Kaila,



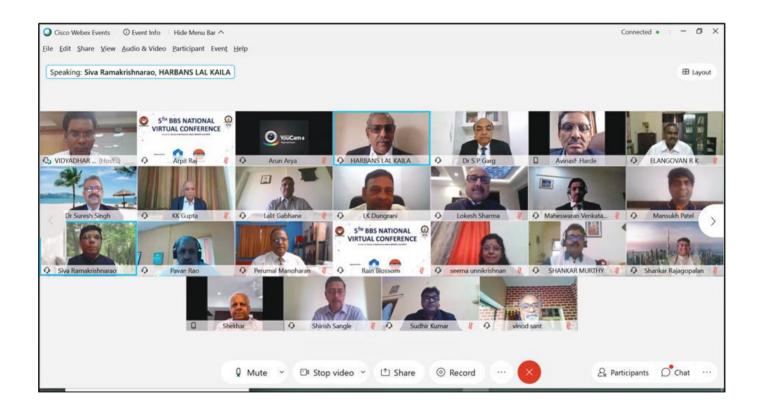


Director, BESAFE; Dr R.K. Elengovan, DGFASLI; Shri Lalit R Gabhane, DG NSC; Shri V.B. Sant, Ex-DG NSC; Shri U Shekhar, MD, Galaxy Surfactants; Prof. Shankar Murthy, Professor NITIE and Shri Perumal Manoharan, President SEA. The conference was sponsored by two Industrial giants, Indian Oil and India Glycols Ltd. The conference was coordinated and conducted by Prof. Shankar Murthy and co-coordinated by Prof. Vidyadhar Gedam from NITIE Mumbai, supported by a team of PGP students.

The theme of the conference was "Behavioural Based Safety." Prof. Manoj Kumar Tiwari inaugurated the conference, Director NITIE, Mumbai; Dr Harbans Lal Kaila -Director, BESAFE; Dr R.K. Elangovan DGFASLI; Mr Lalit R. Gabhane DG NSC; Mr U.

Shekhar MD Galaxy Surfactants; Mr V.B. Sant Ex-DG NSC; Mr Perumal Manoharan (President - SEA). The conference was also attended and supported by Shirish Sangle, Prof. and Dean Alumni Affairs; V.B. Khanapuri, Prof. and Dean Research, and Consultancy and Prof. Seema Unnikrishnan.

The response to the conference was quite overwhelming, with more than 250+ registered participants from across India and Middle East countries. More than 35-40 companies participated in the conference: like L&T, Bajaj Auto, IOCL, HCC, AFCONS, DCM, Toyota, Vedanta, GAIL, NTPC, and various organisations. The expert panellists who participated were from industry, academia, and consulting services drawn from various parts of India and Abroad.







Faculty Achievements

- Prof. Seema Unnikrishnan was nominated by the National Safety Council as an Expert Member on the NSAT Technical Committee [2020-2021].
- Prof. Anju Singh received Women Researcher Award, International Scientist Awards on Engineering, Science, and Medicine, March 2021.
- Prof. Anju Singh was nominated as a Member, Institutional Review Board of Ethics IIT Bombay
- Prof. Anju Singh was nominated as a Member, Research Advisory Board, NEERI CSIR
- Prof. Anju Singh was nominated as a Member, Facility creation projects committee, CSIR



- Prof. Anju Singh conducted a workshop on Circular Economy at the International e-school. She delivered
 a talk on Leadership in Circular Economy in Adelaide Australia in October 2019 organised by The Circular
 Economy Alliance Australia (CEAA)
- Prof. Anju Singh co-organized and moderated a session during the 5th BBS National Conference, 24th. Jan. 2021.
- Prof. Vidyadhar Gedam attended the IconSWM- India-Nigeri Webinar on Resource Circulation & Waste Management under Pandemic COVID -19, Organized by the International Society of Waste Management Air and Water (ISWMAW), 11th August 2020.
- Prof. Vidyadhar Gedam delivered an expert talk on Environmental Impact Assessment for Chemical Industry @ Chemical Engineering Dept., PDPU, Gandhinagar, on 6/9/2020.

VII. Outreach of the Area:

Details are given in the Outreach section.



FINANCE AND ECONOMICS

Area Chair: Prof. Vijaya Gupta

I) Introduction to the Area

Finance and Economics are the key academic areas that provide vital inputs to business management and industrial engineering. The area combines two broad disciplines, viz. Accounting & Finance and Applied Economics. Accounting & Finance and Economics is placed uniquely to provide necessary domain knowledge and skillset to all PG Programs like: General Management, Operations and Supply Chain, Industrial Engineering, Marketing, Human Resources Management, and sets the tone for a multidisciplinary approach to education. It provides a basket of courses that combines the tools of decision-making through accounting, finance and economics on the one hand, and theoretical and analytical principles, integrating decision-making with financial reporting and analysis, managerial finance, macroeconomic, regulatory, and environmental policies, on the other.

Furthermore, 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 Accounting, Financial Management, and Managerial Economics common to all programs, the area has many program-specific and Institute-open electives.

The faculty members undertake theoretical and empirical research on a large number of inter-disciplinary areas like Financial Reporting and Analysis, Corporate Finance, Financial Economics and Markets, 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.

Courses offered

Core Courses

Managerial Accounting, Financial Management, Managerial Economics

Electives

Financial Risk Management, Investment Analysis and Portfolio Management, Financial Time Series, Valuation and Financial Modelling, Derivatives and Modelling, Analytical Finance, Commercial Bank Management, International Finance and Forex Management, Mergers and Acquisitions, Strategic Cost Management, Advanced Financial Statement Analysis, Financial Intermediaries and Capital Markets, Infrastructure Finance and Project Appraisal, Macroeconomic Environment and Policy, Business Analysis and Econometric Applications, Economics of Regulation, Economics of Strategy, Environmental Economics, Global Trade and Institutions, Industrial Organization, Mergers and Acquisitions, 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, and Customer Analytics

Particulars	Finance & Economics
Number of Faculty members	10
Number of courses offered	42
Total Number of Research students	19
Total no. of fellows awarded	01
Total no. of fellows ongoing	17
Summer Internship Student handled	69
Six-month PGDIE/MM project handled	33
Number of Publications	46
Number of Conferences	12
Number of MDP conducted	08

The area has provided core courses and multiple elective courses in the area of Economics and strategy.

II) List of Faculty Members:

List of area members in the Accounting and Finance subarea:

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



Economics Subarea-List of Faculty Members

Sl. No.	Name of Faculty	Designation	Area of Research
1.	Prof. Binilkumar Amarayil Sreeraman	Assistant Professor	Economics 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.
2.	Prof. Mainak Mazumdar	Assistant Professor	Applied Econometrics, Development Economics, Industrial Economics, Economics of efficiency and productivity
3.	Prof. Poonam Singh	Assistant Professor	Competition Policy, Corporate Governance
4.	Prof. Utpal Chattopadhyay	Associate Professor	Economic Environment of Business, Globalization & Global Competitiveness, International Trade
5.	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.

III) List of Students of Fellow Program:

Sr. No.	Name of the fellow student	Faculty Guide	Topic
1.	Swati Agrawal	Prof. Poonam Singh Prof. Mainak Majumdar	Understanding Firm Transition in Indian MSMEs and the Role of Institutions
2.	Alok Kumar Yadav	Prof. Utpal Chattopadhyay	Expert Performance of Major Agro-Products in India: An Analysis
3.	Jyoti Anil Dixit	Prof.Poonam Singh	Mergers and Acquisition - Role of Family Firm, Blockholders and Regulations in emerging Markets
4.	Dinesh Dattu Rajput	Prof. Binilkumar A.S.	Capital accumulation in Indian informal sect
5.	Kezia Sharma	Prof. Binilkumar A.S. Prof. Vijaya Gupta	Exploration into the Dynamics Between Energy Transition and Energy Poverty
6.	Ritika Ajit Nirmal	Prof. Mainak Mazumdar	The role of cooperation to enhance competitiveness of textile cluster: A critical analysis of the Public- private partnership and public policies



Sr. No.	Name of the fellow student	Faculty Guide	Topic
7.	Anil Kumar Pandey	Prof. Ajaya Kumar Panda	Impact of Working, Capital Management & It's Financing on Firm Profitability: An empirical Study on Indian Manufacturing Firms
8.	Vimmy Arora	Prof.Vipul Kumar Singh	Static and Dynamic system-wide Connectedness of Financial Markets
9.	Akhilesh Kumar K. Yadav	Prof.Ajaya Kumar Panda	Determinants of capital structure and its dynamics: an empirical investigation on Indian Manufacturing firms
10.	Apoorva Arunachal Hegde	Prof. M. Venkateshwarlu Prof. Ajaya Kumar Panda	Review of Dynamic Capital Structure Theories: empirical Evidence
11.	Revulagadda Rajeev Kumar	Prof.Vipul Kumar Singh	Bayesian Network Approach for Systemic Risk
12.	Atul Gautam Parad	Prof.K.S. Ranjani	Impact of Credit Risk Management Practices on Mission Drift in Indian MFIs: an empirical assessment
13.	Pawan Kumar	Prof.Ajaya Kumar Panda	Nexus Between Risk Management and Financial Stability: An empirical assessment of Indian banks
14.	Siddhant Mishra	Prof.Vipul Kumar Singh	Systemic Risk Analysis of Financial Asset Class: In Context of India
15.	Chandan AvadutLal Gupta	Prof.K.S. Ranjani	Finance and Economics
16.	Kritika Singh	ProfK.S. Ranjani	Finance and Economics
17.	Umakanta Gartia	Prof.Vipul Kumar Singh	Finance and Economics

IV) Research Publications

- Panda. A.K., Nanda S., Hegdey A., and Yadav. AKK. (2021), Receptivity of Capital Structure with Financial Flexibility: A study on manufacturing firms (Accepted), International Journal of Finance and Economics, (Wiley), SCOPUS, Page:1–13.
- Panda. A.K. and Nanda S. (2020), Receptiveness of effective tax rate to firm characteristics; An empirical analysis on Indian listed firms, (*Emerald*), SCOPUS, Journal of Asia Business Studies, 2020, 15(1), pp. 198–214
- Panda. A.K, Nanda S and Panda, P (2020), Working Capital Management, Macroeconomic Impacts, and Firm Profitability; Evidence from Indian SMEs, (Sage) SCOPUS, Business Perspectives and Research, 2021, 9(1), pp. 144–158
- Panda, A.K., Nanda, S., (2020), Determinants of capital structure; a sector-level analysis for Indian manufacturing firms, International Journal of Productivity and Performance, (Emerald), SCOPUS Management, 2020, 69(5), pp. 1033– 1060



- PG Babu, Vikas Kumar, Poonam Singh "Employment and Covid-19: Trends and Issues in Tamil Nadu," in PG Babu (ed., 2021), Economic Policy in Covid-19 Times, Orient Blackswan
- Agrawal, Swati, Poonam Singh, Mainak Mazumdar (2021) "Innovation, Firm Size and Ownership: A Study of Firm Transition in India", International Journal of Global Business and Competitiveness
- K S Ranjani, Poonam Singh, Rajeev Kumar Revulgadda (2021) "Impact of digitization on employment: A Study of Microfinance Client of Andhra Pradesh" Vol. 14 No. 1(XVIII) Wesleyan Journal of Research
- P G Babu, Vikas Kumar, Poonam Singh (2020)
 "Employment and Covid 19: Trends and Issues in Tamil Nadu", Covid-19 Series, MIDS Occasional Policy Paper
- Chandan Kumar Jha, Vijaya Gupta, (2021), Farmer's perception and factors determining the adaptation decisions to cope with climate change: An evidence from rural India, Environmental and Sustainability Indicators, Elsevier, 10, 100112.
- B.K.Thakur V.Gupta, P.Bhattacharya, MdJakariya, Md T.Islam, (2021), Arsenic in drinking water sources in the Middle Gangetic Plains in Bihar: An assessment of the depth of wells to ensure safe water supply, Groundwater and Sustainable Development, Elsevier, 12, 100504
- Chandan Kumar Jha and Vijaya Gupta, 2021, Do better agricultural extension and climate information sources enhance adaptive capacity? A micro-level assessment of farm households in rural India, Ecofeminism and Climate Change, Emerald, in press.
- P. K. Pandey, B. Adhikari, M. Mazumdar and N. Ganguly, "Modeling signed networks as 2-layer

- growing networks," in IEEE Transactions on Knowledge and Data Engineering (2020), DOI: 10.1109/TKDE.2020.3024779.
- Chopra, A., & Ranjani, K. S. (2020). Adoption of digital transaction model by micro-enterprises to target millennials in India: An exploratory study. Social Business. (ABDC-B)
- Meherishi, L., Narayana, S. A., & Ranjani, K. S. (2021). Integrated product and packaging decisions with secondary packaging returns and protective packaging management. European Journal of Operational Research, 292(3), 930-952. (ABDC-A*)
- Ranjani, K. S., Singh, P., Revulagadda R. K.
 (2021) Impact of digitization on employment:
 A study of microfinance clients in Andhra
 Pradesh. Wesleyan Journal of Research, Vol.14

Book Chapter:

- Gupta V. (2021) Economic Policy Making in India and the Scope of Entrepreneurship Led Development. In: Mitra J. (eds) Indian Entrepreneurship. Entrepreneurship and Development in South Asia: Longitudinal Narratives. Springer Nature, Singapore, pp 41-60
- Published a book titled "Inclusive Growth - An Indian Perspective" with Paramasivan Sivasooriyan Vellala, Mani K Madala as coauthors, Bookwell Publications, New Delhi, 2020, 244 pages.

Conference/workshop/ panel discussion

- Amarayil Sreeraman, Binilkumar, Ray, Preetam (2020) Developing Driver Reputation Score using IOT based On-Board Diagnostic Tool, in Proceedings of 29th International Conference of the International Association for Management of Technology held on 13-17 September 2020 at Cairo, Egypt
- Vellala, Paramasivan S. and Chattopadhyay, Utpal, Public Policy Response to Inclusive



Growth: Evidence from MGNREGA in India, presented at (virtual) GNLU International Conference on Economic Analysis of Law and Governance, 18th -21st March 2021.

Research Project Undertaken

Prof. Binilkumar Amarayil Sreeraman is undertaking a collaborative 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 -Rs.10 Lakhs (Initiated in 2019).

V. Faculty activities

- Prof.Vijaya Gupta delivered a talk "Environment and its Control through Economics Lenses" in the workshop Clean Environment and Planetary Health in Asia (CEPHA) Network series on 15th May 2020 organised by IIT Madras, Institute of Occupational Medicine (IOM), UK, Australian National University (ANU) and UK Research and Innovation (UKRI).
- Prof.Vijaya Gupta participated in a panel discussion on "The Sustainable Development Goals (SDGs) to Achieve Clean Environment in India" on World Environment Day 2020, 5th June 2020, organised by IIT Madras-GCRF-Clean Environment and Planetary Health in Asia (CEPHA) Network, UK Research and Innovation (UKRI).
- Prof. Vijaya Gupta participated in panel discussions and delivered a talk titled "The Role of Economics in Environment and Sustainable Development", at the Vaishvik Bhartiya Vaigyanik (VAIBHAV) Summit organised by the Government of India from 2-31 October 2020. The Environmental Science Vertical is jointly

- organised by IITM, IITD, CSIR-NEERI, CSIR-NGRI.
- Prof. Vijaya Gupta initiated ArthNiti (public policy forum of students) to create a neutral, independent platform for open dialogue on the decision making and the impact of public and economic policies on the society and economy.
- Prof. Vijaya Gupta moderated the first-ever event of ArthNiti as Panel Discussion "Farm reforms: How banking sector can help?" on the 18th March 2021 with the following panellists:
 - o Mr Prabhat Chaturvedi, CEO of Netafin
 - o Mr Aridam Datta, Executive Director, Rabobank
 - o Mr Sameer Narang, Chief Economist, and Head Strategy, Bank of Baroda
- Prof. Mainak Mazumdar organized a talk on " Cooperation, Chicken and Common Knowledge: A Game Theorist Looks at the Pandemic by Prof. Sudipta Sarangi HOD Economics department
- Prof. Mainak Mazumdar Organized MSME Entrepreneurship Conclave on the following topic "India as a self-reliant economy and global manufacturing hub: Challenges and Opportunities" 23rd October 2020. The session observed the invaluable views of the following speakers:
 - o Dr Milind Prahlad Kamble, Padmashri Awardee, Founder & Chairman, DICCI
 - o Shri Mukesh M. Gupta, President, Chamber of Indian MSME and Ex-Director, Dena Bank
 - o Shri Indrajit Ghosh, Chairman, MSME Chamber of Commerce and Industry of India







VI. Faculty achievements

Prof. Ajaya Kumar Panda

Recipient of AIMS Outstanding Management Researcher Award (2021) presented by AIMS International (The Association of Indian Management Scholars) for significant contribution towards management research.

VII. Outreach of the Area

Details are available in the Outreach section.



MARKETING, ORGANISATIONAL BEHAVIOUR AND HUMAN RESOURCE MANAGEMENT

Managing production, warehouse, operations or supply chain, finance or economics, or the advanced software that can analyse the complex data, it is prudent that business needs to be managed well. Marketing of business or operations undertaken and valuing people who more so over undertake these endeavours cannot be left unrecognised. Students must learn to recognise not only the importance but also these business functionalities. They should be trained in these areas to support them learn managing the business well.

The Marketing, Organisational Behaviour and Human Resource Management areas deal with these training and education that support students in becoming managers. In 2020, Marketing, Organisational Behaviour, Human Resource Management, and Strategy were merged and rechristened as Marketing, Organisational Behaviour and Human Resource Management (MOBHR). The area details are as follows:

Particulars	
Number of Faculty members	13
Number of courses offered	38
Total Number of Research students	21
Total no. of fellows awarded	15
Total no. of fellows ongoing	14
Summer Internship Student handled	71
Six-month PGDIE/MM project handled	12
Number of Publications	72
Number of Conferences	10
Number of MDP conducted	07
Number of UBP conducted	02

Marketing

I. 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. Well-designed marketing leads to a 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. The marketing area's training and consultancy activities help organizations be 'customer oriented' and 'market focused'.

Courses currently offered in the Marketing subarea:

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



Courses Offered through OB and HRM subarea

Institute Core Subjects:

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

Programme Core Subjects:

Organisational Behaviour, Human Resource Management, Business Research Method, Strategic Management, Research Methodology II, Organizational Structure Theories and Design

Electives:

Entrepreneurship Development, HR Analytics, Qualitative Research, Competency Assessment, Organizational Development, Managing Negotiations, Principles of Management, Positive Psychology in Organization, Soft Skills Development, Strategic HRM, Personality Theories

II List of Area members and their specialization:

Sr. No.	Faculty	Focus Area	Spectrum of Work
1.	Prof. Manoj Kumar Jha	Marketing Management, B2B Marketing, Information Systems	Business to Business Marketing, Marketing of Hi-Tech Products, Marketing Strategy, Software Engineering, Object- Oriented Programming.
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	Marketing Management	Marketing Research, Marketing Management
6.	Prof. Sanjeev Verma	Marketing Research, Marketing Analytics, Experiential Marketing	Customer Engagement, Customer Experience, Customer Centricity

III. Research - Fellow (Awarded & Ongoing)

Sr. No.	Fellow	Faculty	Topic
1.	Trisha Parekh	M.K.Jha	Brand Associations in Driving Customer Engagement-A Case of IPL
2.	Preeti Nayal (Awarded)	Neeraj Pandey	Enhancing digital coupon redemption in the movie industry



Sr. No.	Fellow	Faculty	Topic	
3.	Mukesh Kharat	R D Chikhalkar, Manoj K Jha	Brand Management	
4.	Harish Suri	Sanjeev Verma	Determinants of Experience Components that Cocreate Value for Customer: A Study in Indian Healthcare Industry	
5.	Ashesh Das	Sanjeev Verma, Mainak Mazumdar	Customer Centricity in Indian SME's	
6.	Kalyan Pappu Ram	Neeraj Pandey	Social Coupons	
7.	Akanksha Mishra	Neeraj Pandey	Pricing Information Asymmetry in Healthcare	
8.	Neha Yadav (Awarded)	R D Chikhalkar, Sanjeev Verma	Examining the Influence of Electronic Word of Mouth (EWOM) on Behavioral Intentions of Leisure Traveler - An Integrated Approach	
9.	Shobhana Chandra	Sanjeev Verma	Recommender System for Customer Experience	
10.	Rijul Chaturvedi	Sanjeev Verma	AI for Customer Experience	
11.	Punit Ekka	Neha Srivastava/ Sumi Jha	Consumer Behavior, Change management and Leadership	
12.	Apoorva	Ranjan Chaudhari	Customer Incivility in the Service sector	

IV. Publications

Journal Publication

- Nayal, P., Pandey, N., & Paul, J. (2021). Examining m-coupon redemption intention among consumers: A moderated moderatedmediation and conditional model. *International Journal of Information Management*, 57, 102288.
- Kumar, S., Pandey, N., Lim, W. M., Chatterjee, A.
 N., & Pandey, N. (2021). What do we know about transfer pricing? Insights from bibliometric analysis. *Journal of Business Research*, 134, 275-287.
- Tripathi, A., & Pandey, N. (2021). Consumers' Perceptions of Deal Presentations for Green Products. Australasian Marketing Journal, 18393349211005201.
- Pandey, N. & Jha, S. (2021). Universal Health System in India: Review and Directions

- for Future Research. Journal of Health Management, 23(3)
- Donthu, N., Kumar, S., Pattnaik, D., & Pandey, N. (2021). A bibliometric review of International Marketing Review (IMR): past, present, and future. International Marketing Review.
- Pandey, N., Nayal, P., & Rathore, A. S. (2020).
 Digital marketing for B2B organizations: structured literature review and future research directions. *Journal of Business & Industrial Marketing*, 35 (7), 1191-1204
- Pandey, N., Jha, S., & Singh, G. (2020).
 Promotion of green products on Facebook: insights from millennials. *International Journal of Management Practice*, 13(3), 275-294.
- Nayal, P., & Pandey, N. (2020). Framework for measuring usage intention of digital coupons:
 A SPADM approach. Journal of Strategic Marketing, 1-21.



- Keskar, M. Y., Pandey, N., & Patwardhan, A. A. (2020). Development of conceptual framework for internet banking customer satisfaction index. *International Journal of Electronic Banking*, 2(1), 55-76.
- Nayal, P., & Pandey, N. (2020). Digital coupon redemption: Conceptualization, scale development and validation. *Australasian Journal of Information Systems*, 24.
- Chavan, G., Chaudhuri, R., Johnston, W. J., & Garner, B. (2020). Purchasing performance of engineering procurement and construction companies using a fuzzy quality function deployment approach. *Journal of Business & Industrial Marketing*.
- Chatterjee, S., Chaudhuri, R., Vrontis, D., Thrassou, A., & Ghosh, S. K. (2021). Adoption of artificial intelligence-integrated CRM systems in agile organizations in India. *Technological Forecasting and Social Change*, 168, 120783.
- Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2021). Knowledge sharing in international markets for product and process innovation: moderating role of firm's absorptive capacity. *International Marketing Review*.
- Shams, S.R., Vrontis, D., Chaudhuri, R., Chavan, G., & Czinkota, M. R. (2020). Stakeholder engagement for innovation management and entrepreneurial development: A meta-analysis. *Journal of Business Research*.
- Chatterjee, S., Chaudhuri, R., Thrassou, A., & Vrontis, D. (2021). Antecedents and consequences of knowledge hiding: The moderating role of knowledge hiders and knowledge seekers in organizations. *Journal of Business Research*, 128, 303-313.
- Chatterjee, S., Chaudhuri, R., Vrontis, D., & Piccolo, R. (2021). Enterprise social network for knowledge sharing in MNCs: examining the role of knowledge contributors and knowledge seekers for cross-country collaboration. *Journal of International Management*, 27(1), 100827.

- Chaudhuri, R., Chavan, G., Vadalkar, S., Vrontis, D., & Pereira, V. (2020). Two-decade bibliometric overview of publications in the Journal of Knowledge Management. *Journal of Knowledge Management*.
- Chatterjee, S., Chaudhuri, R., & Vrontis, D. (2021). Does data-driven culture impact innovation and performance of a firm? An empirical examination. *Annals of Operations Research*, 1-26.
- Chatterjee, S., Ghosh, S. K., & Chaudhuri, R. (2020). Knowledge management in improving business process: an interpretative framework for successful implementation of AI–CRM–KM system in organizations. Business Process Management Journal.
- Chatterjee, S., Chaudhuri, R., Vrontis, D., Thrassou, A., Ghosh, S. K., & Chaudhuri, S. (2020). Social customer relationship management factors and business benefits. International Journal of Organizational Analysis.
- Chaudhuri, R., Vrontis, D., Chavan, G., & Shams, S. R. (2020). Social business enterprises as a research domain: a bibliometric analysis and research direction. *Journal of Social Entrepreneurship*, 1-15
- Chatterjee, S., Chaudhuri, R., Vrontis, D., & Thrassou, A. (2021). Does "CHALTA HAI" culture negatively impacts sustainability of business firms in India? An empirical investigation. *Journal of Asia Business* Studies.
- Chatterjee, S., Chaudhuri, R., Vrontis, D., Thrassou, A., & Ghosh, S. K. (2020). ICT-enabled CRM system adoption: a dual Indian qualitative case study and conceptual framework development. *Journal of Asia Business Studies*.
- Verma, S., & Yadav, N. (2021). Past, present, and future of electronic word of mouth (EWOM). *Journal of Interactive Marketing*, 53, 111-128.



- Verma, S., Sharma, R., Deb, S., & Maitra, D. (2021). Artificial intelligence in marketing: Systematic review and future research direction. International Journal of Information Management Data Insights, 100002.
- Chandra, S., & Verma, S. (2021). Big
 Data and Sustainable Consumption: A
 Review and Research Agenda. Vision,
 09722629211022520.
- Verma, S., & Girdhar, P. (2020). Integrated framework for vendor management:
 An interpretivist approach. *Journal of Management Research*, 20(2), 63-74.
- Verma, S. (2020). Value Co-Creation Through Value-in-Use Experience: A Netnographic Approach. South Asian Journal of Management, 27(3).
- Mhatre, P., Gedam, V., Unnikrishnan, S., & Verma, S. (2020). Circular economy in built environment–literature review and theory development. *Journal of Building Engineering*, 101995.

Case Studies

- Pandey, N., Jha, S., & Rai, V. (2021). Ayushman Bharat: Service Adoption Challenges in Universal Healthcare System. South Asian Journal of Business and Management Cases, 10(1), 35-49.
- Pandey, N., & Paul, G. (2020). Marketing at Patanjali Ayurved: Creating value in a herbal way. South Asian Journal of Business and Management Cases, 9(1), 99-111.
- Ranjan Chaudhuri, "Re-tales from Traditional Indian Retail – The Sarvodaya Way," Case ID: CB-1-0023, Teaching Note: CB-1-0023A, ET Cases
- Ranjan Chaudhuri et al. (2021), "Global Gyan:
 Dilemma of Strategic Choices" Case Studies in
 Business Management Indian Perspective,
 Himalaya Publishing House, New Delhi

- Ranjan Chaudhuri et al. (2021), "The Zoya Sparkle", Case Studies in Business Management – Indian Perspective, Himalaya Publishing House, New Delhi
- Ranjan Chaudhuri et al. (2021), "Transforming the Last-Mile Delivery," Case Studies in Business Management – Indian Perspective, Himalaya Publishing House, New Delhi
- Ranjan Chaudhuri et al. (2021), "Downfall of GMIPL," Case Studies in Business Management
 Indian Perspective, Himalaya Publishing House, New Delhi
- Ranjan Chaudhuri et al. (2021), "How Jio disrupted the telecom market," Case Studies in Business Management – Indian Perspective, Himalaya Publishing House, New Delhi

Book Chapter

'Digital Marketing Strategies for Firms in Post COVID-19 Era: Insights and Future Directions', in Book "The New Normal: Challenges of Managing Business, Social and Ecological Systems in the Post COVID-19 Era" Ed. Harivansh Chaturvedi and Ajoy K. Dey, Bloomsbury Publishing; pp. 107-124, Pandey, Neeraj (2021)

V) Faculty Activities

- Prof. Neeraj Pandey served as Editor, Special Issue, Journal of Strategic Marketing (ABDC "A" Ranked Journal)
- Prof. Neeraj Pandey and Prof. Sumi Jha completed ICSSR (Indian Council of Social Science Research) funded Research Program Project entitled "Implementing Universal Health System (UHS) in India: Issues, Approaches and Challenges"
- Prof. Neha Srivastava, Nominated as member of Program Committee and invited to chair the session on Marketing communications, CRM & Sales at 4th International Marketing Conference on Marketing, Technology and Society organized by IIM Kozhikode during 7-9 December, 2020



- Prof. Ranjan Chaudhuri, Panelist and Keynote Speaker for the 2020 Marketing Management Association, USA Conference: A Virtual Experience on the topic: "International Marketing Projects via International Collaborations: Strategies and Challenges" on 28 October 2020 in MMA Fall Educators' Conference 2020, New Orleans, USA
- Completed the Joint Guidance for the pioneering Certificate of Excellence in Research (Two Years
 Post-Doctoral Fellowship), Department of Computer Science and Engineering, Indian Institute of
 Technology Kharagpur. The project involved successfully developing an AI-based algorithm for eCRM,
 with Microsoft as an industry partner. In addition, the IPR Development and Research Monograph
 documentation with an International publisher is in progress.

OB and HRM Subarea

I. Introduction

Developing potential and capabilities are vital to align with organisational, business, and social objectives. As an area of Organizational Behaviour and Human Resource Management, we are determined to understand and deal with various people related workplace challenges. We strive to work with our students' affective, behavioural, and cognitive requirements, provide human-based interventions to organisations, and contribute to nation-building by strengthening human capabilities.

II. Area Objectives

To develop students and executives' engineering, managerial and leadership capabilities, focusing on organisational behaviour and HR functional aspects.

III. 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, Psychological Assessment, Personnel Selection, Leadership, Positive Psychology.
3.	Prof. T. Prasad (TP)	Principles of Organisation and Management, Entrepreneurship	Entrepreneurship, Startups, and Entrepreneurial Pedagogies
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 behaviours



IV. Research - Fellow (Awarded & Ongoing)

Sr. No.	Fellow	Faculty	Торіс
1.	Pratibha Maan	Prof. DK Srivastava	Engaging Multigenerational Workforce in Teams: An Empirical Study of Generational Cohorts in Indian Context
2.	Ankita Pandey	Prof. D.K. Srivastava	Employee Engagement in Virtual Environment
3.	Paul Pratap Alukal	Prof. S.K. Nair	Antecedents and Outcomes of Green HRM Practices: A Study on the Services Sector in India
4.	Beena Prakash Nair	Prof. T. Prasad	Authentic Leadership
5.	Rachna Gedam	Prof. Nikhil K. Mehta Prof. Hema Date	Antecedents of Career Decision Making and Career Success: A Study in Indian IT Sector
6.	Snehal Girish Mhatre	Prof. Nikhil K. Mehta	A Phenomenological Study of Lived Experiences of Spirituality among Indian Engineers
7.	Seema Das	Prof. Sumi Jha	Gender-based perceptual differences of the antecedents of job performance and career advancement at the workplace
8.	Anjali Singh (Awarded)	Prof. Sumi Jha	Innovation Driven growth: The impact of behavioural characteristics as strategic leaders on team capabilities and team performance
9.	Asha Nair	Prof. S.S. Bhattacharya	Explicating Sustainability - Oriented Innovation Through the Dynamic Capability Lens
10.	Nivedita Sarkar	Prof. U.A. Agarwal	Women Entrepreneurship
11.	Neha Gangwar	Prof. U.A. Agarwal Prof. Nikhil K. Mehta	Diversity and Inclusion
12.	Vishnu Patankar (Awarded)	Prof. Nikhil K. Mehta	Community-Based Entrepreneurial Orientation in India

V. Publications of Faculty Members

- Nair, B. P., Prasad, T., & Nair, S. K. (2021). Role of leader and followers' well-being, engagement and the moderating role of psychological capital, *International Journal of Productivity and Performance Management (Emerald)*, DOI 10.1108/JJPPM-10-2020-0565.
- Nair, B. P., Prasad, T., & Nair, S. K. (2021). "Exploring Authentic Leadership through Leadership Journey of Gandhi, The Qualitative Report, 26(3), 714-733.
- Nair, B; Prasad, T; Nair, S.(2021). Self-Awareness Trigger leading to Authentic leadership: Conceptualisation and Development of Reliable and Valid Self-Awareness Trigger Scale. Dynamic Relationships Management Journal. 10(1), 23-44. doi:10.17708/DRMJ.2021.v10n01a02 (Scopus-indexed)
- मेहता निखिल केवलकृष्ण, कमरुद्दीन उमर, मदान लित (2020). स्वच्छ भारत अभियान: व्यवहार विश्लेषण शिक्षा के परिपेक्ष्य में. सामाजिक विमर्श 3(2), 171-186.



- Mehta, N.K. (2020). Synergistic Use of Bourdieu's
 Theory of Practice, Queer Theories, and
 Employment Relation Theories: A Perspective
 for Sustainable Transgender Inclusion at
 the Workplace. Business Perspectives and
 Research. 2278533720910849.
- Mehta, N. K. (2020). Third Eye Café: Sustaining Mainstream Transgender Employment.
 Asian Journal of Management Cases, 0972820120936465.
- Bhattacharyya, S. S. (2020). Explicating firm international corporate social responsibility initiatives. Review of International Business and Strategy, Vol. 30 No. 4, pp. 515-536. https://doi.org/10.1108/RIBS-05-2020-0055
- Bhattacharyya, S. S. (2020). Integrated Perspective for Entrepreneurs: The Dos and Don'ts in Strategic Management of New Business Ventures. *Journal of Operations and* Strategic Planning, 2516600X20968973.
- Bhattacharyya, S. S., & Verma, S. (2020). Firm–civil society organizational collaborations in the context of corporate social responsibility (CSR) initiatives; development of collaboration typology. World Journal of Entrepreneurship, Management and Sustainable Development, Vol. 16 No. 4, pp. 359-375. https://doi.org/10.1108/WJEMSD-12-2019-0101
- Bhattacharyya, S. S., Verma, S., & Sampath, G. (2020). Ethical expectations and ethnocentric thinking: exploring the adequacy of technology acceptance model for millennial consumers on multisided platforms. *International Journal of Ethics and Systems*, Vol. 36 No. 4, pp. 465-489. https://doi.org/10.1108/IJOES-04-2020-0039
- Bhattacharyya, S.S. and Thakre, S. (2020),
 "Exploring the factors influencing electric
 vehicle adoption: an empirical investigation
 in the emerging economy context of India",
 Foresight, Vol. ahead-of-print No. ahead-of-

- print. https://doi.org/10.1108/FS-04-2020-0037.
- Verma, S., Singh, V. and Bhattacharyya, S.S. (2020), "Do big data-driven HR practices improve HR service quality and innovation competency of SMEs", *International Journal of Organizational Analysis*, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/IJOA-04-2020-2128
- Bhattacharyya, S. S. (2020). Evolving from Manager to a Business Leader: Characteristics of 'Yogic Perspectives'& 'Vedic Philosophy'. The Indian Journal of Industrial Relations: A Review of Economic & Social Development, 56(2), 374-383.
- Bhattacharyya, S.S. (2020), "Development of an integrated framework regarding inter-firm collaborative business strategies", *Journal of Science and Technology Policy Management*, Vol. ahead-of-print No. ahead-of-print. https:// doi.org/10.1108/JSTPM-02-2020-0019
- Bhattacharyya, S.S. and Jha, S. (2020), "Explicating micro-foundations of corporate social responsibility: a moderated-mediation study of customer, investor and employee roles", *International Journal of Ethics and Systems*, Vol. 36 No. 4, pp. 619-640. https:// doi.org/10.1108/IJOES-05-2020-0073
- Jha, S., & Bhattacharyya, 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.
- Bhattacharyya, 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



- Bhattacharyya, S. S. (2020). Humanistic Orientation in Firm–Stakeholder Technologybased Interaction and Its Impact on Stakeholder Satisfaction. *Emerging Economy Studies*, 6(1), 86-105.
- Bhattacharyya, S. S. (2020). Doctoral Research
 Work in Strategic Management: Perspectives
 for Executives & Parttime Candidates. *Indian*Journal of Industrial Relations, 55(4). Pp-710720.
- Bhattacharyya, S.S. and Verma, S. (2020), "The intellectual contours of corporate social responsibility literature: Co-citation analysis study", *International Journal of Sociology and Social Policy*, Vol. 40 No. 11/12, pp. 1551-1583. https://doi.org/10.1108/IJSSP-12-2019-0263
- Bhattacharyya, S. S. (2020). Development of a Typology Regarding CIF-CSR Initiatives Typology, Comprising of Conceptual Archetypes. *FIIB Business Review*, 9(1), 55-66.
- Bhattacharyya, S. S., Jha, S., & Sharma, D. (2020). Development of a scale on individual perspectives on corporate social responsibility constructs: based on micro-foundations theory. *Vision*, 24(1), 47-59.
- Bhattacharyya, S. S., & Naser, S. (2020). Comparative analysis of mergers and acquisitions in Indian and international pharmaceutical industry with unique caselets. *International Journal of Business and Globalisation*, 25(1), 112-136.
- Bhattacharyya, S. S., Raghuwanshi, V., Mohan, K. S., Prasad, A. V., Murari, K., & Sarkar, A. (2020). Internationalization of Indian Engineering, Procurement & Construction Firms. *Indian Journal of Industrial Relations*, 55(3), pp-506-518.
- Yalla, S. P., Jain, K., & Bhattacharyya,
 S. S. (2020). Impact of monetary policy

- announcements on bank index in India. *Afro-Asian Journal of Finance and Accounting*, 10(1), 112-130.
- Bhattacharyya, S. S., & Atre, S. (2020).
 Additive Manufacturing Technology: Realities and Strategic Perspectives From India.
 International Journal of Asian Business and Information Management (IJABIM), 11(1), 1-20.

Book Chapters

- Jumle, V. V., & Bhattacharyya, S. S. (2020).
 Study of Motives of Indian Strategic Alliances:
 Marketing or Innovation Seeking? Chapter in Innovative Management and Business Practices in Asia (pp. 1-28). Hershey, Pennsylvania, USA: IGI Global.
- Bhattacharyya, S. S., Laik, B., Sharma, D., & Bose, T. (2020). A Comparative Historical Analysis of the Evolution of the Venture Capital Industry in the Economic Regions of the United States of America, Europe, and China. Chapter in Innovative Management and Business Practices in Asia (pp. 244-264). Hershey, Pennsylvania, USA: IGI Global.
- Bhattacharyya, S. S., Laik, B., & Jaiswal, R. (2020). Study of Technology-Based Innovations in Supply Chain Management Function of Indian Firms: Strategic Imperatives. Chapter in Handbook of Research on Managerial Practices and Disruptive Innovation in Asia (pp. 210-226). Hershey, Pennsylvania, USA: IGI Global.
- Bhattacharyya, S. S., & Shrey, A. (2019).
 Supply Chain Startups in India: A Cross Case Comparative Analysis. Chapter in Handbook of Research on Corporate Restructuring and Globalization (pp. 320-344). Hershey, Pennsylvania, USA: IGI Global.



Conferences attended/ paper presented/ authored / published in conference proceedings-

• Chandwani R and Bhattacharyya S S (2020)
Academy of Management (AOM) Conference
Vancouver, Canada PDW submission titled "Is
there a thing called Indian Management?" was
part of the "Real-time Open" virtual session
and scheduled on Aug 8 2020, from 7:30 AM
to 9:30 AM. Eastern (New York time) (UTC4. 5 p.m. to 7 p.m. Indian by Som Sekhar
Bhattacharyya (NITIE) and Rajesh Chandwani
(IIM A): Innovations in Health Care Sector in
India.

Nair A and Bhattacharyya S S (2020)
 Doctoral Symposium 2020, Indian Institute of
 Management Kozhikode, Sustainability Mind set: Micro-foundation of Dynamic Capabilities
 for Innovation for Sustainability, (Online), 9-11,
 December 2020.

Articles in Magazines

Nayak. B and Bhattacharyya S S, (2020)
 Unlocking the potential of predictive analytics and machine learning for health insurance,
 Indian Management, Vol -59, No-10, pp-42-44.

VI. Outreach

Please see the outreach section.



LABORATORIES AND RESEARCH CENTRES

- i. Ergonomics Laboratory
- ii. Digital Manufacturing Laboratory
- iii. Industrial Environment Laboratory
- iv. Centre for Environmental Studies
- v. Centre for Innovation, Incubation and Entrepreneurship



Annual Report 2020-2021





ERGONOMICS LABORATORY

Introduction and Objectives of the Laboratory

The Ergonomics Laboratory was set up to support teaching and research in Human Factor Engineering, Industrial Ergonomics, and Work System Design.

Resources

During the year, the professor in charge of the laboratory was Prof. Rauf Iqbal. In addition, the laboratory had 01 Project Assistants.

Laboratory Activities

During the year, the resources in the laboratory were used in:

- supporting 03 fellow students in their journey of pursuing NITIE Fellowship. Among them, one fellow completed the PhD programme.
- designing an adjustable apparatus for painting: Equipment for ergonomics research.
- establishing research findings, Doctoral thesis, published papers, training courses, Industrial consultancy. 04 (International) in the International Journal of Industrial Ergonomics, Springer Nature, International Journal of Health Sciences and Research were published. The details of the same are provided in the faculty column.
- teaching the following subjects:
 - o Human Factors Engineering
 - o Industrial Ergonomics
 - o Work systems design
- creating intellectual property and researchbased patents. One patent on an adjustable apparatus for painting was filed and published.

Conferences

Paper presented as invited speaker in the following conferences:

 International conference of Brazilian Ergonomics Association - ABERGO 2020, 23-27 Nov 2020, Rio de Janeiro, Brazil

- 3rd International Conference on Industrial and Mechanical Engineering and Operations Management (IMEOM), 26 - 27 December 2020, Dhaka, Bangladesh
- 3. 18th International Ergonomics Conference on Humanizing Work and Work Environment (HWWE) 2020, 8-10 December 2020, Mumbai, India

Lab Infrastructure

A new Lenovo desktop was installed in the lab.

Ongoing Projects

- Study of Cognitive performance and onset of fatigue in skilled jobs: Human factors Intervention.
- 2. Workplace and process improvements in cashew processing units.
- 3. Study of shift towards EV and routing of EV with the use of Ant Colony Algorithm

Participation in Webinar

International Ergonomics Webinar on the theme "Emerging Issues and Trends in Ergonomics and Human Factors Research: The New Normal" organized by NITIE Mumbai in collaboration with BRICS plus network on Human Factors and Ergonomics. Over 800 delegates participated from 23 countries.





DIGITAL MANUFACTURING LABORATORY

Introduction and Objectives of the Laboratory

The Digital Manufacturing Laboratory (DML), formerly known as the AMCE (Advanced Manufacturing Centre of Excellence), was established through a DST project under FIST (Funds for Improvement of Science and Technology) during 2006-07. The objective of Digital Manufacturing Laboratory was to support teaching, research, and outreach in the various areas of manufacturing.

Resources

The DML had four professors: Professor Milind Akarte, Prof. Vivek Khanzode, Professor Balkrishna Narkhede, and Professor Kanchan Joshi. During the year, the DML had the following facilities:

1. Software:

- One user license of AnyLogic Simulation software.
- Witness 2006 Simulation software.
- CNC-Train, FMS-CIM, and M-Robot software.

2. 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.

Laboratory Activities

Some of the important activities carried out by the DML during April 2020 – March 2021 are as below:

- 1. Mr Harshad Sonar, a Research Scholar, has submitted his thesis titled "Evaluating the Impact of Additive Manufacturing on Firm Competitiveness." He was working under the guidance of DML team members Prof. Vivek Khanzode and Prof Milind Akarte. The research publications based on this research work were as follows:
 - ✓ Investigating additive manufacturing implementation factors using integrated ISM- MICMAC approach, Harshad Sonar, Vivek Khanzode and Milind Akarte, Rapid Prototyping Journal 26 (10), 1837-1851.
 - ✓ AConceptualFrameworkonImplementing Additive Manufacturing Technology Towards Firm Competitiveness, HC Sonar, V Khanzode, Milind Akarte, International Journal of Global Business and Competitiveness 15 (2), 121-135
 - ✓ Ranking of Additive Manufacturing Implementation Factors using Analytic Hierarchy Process (AHP). Sonar, H., Khanzode, V. and Akarte, M. (2020), Journal of The Institution of Engineers (India): Series C 102 (2), 421-426.
- 2. Mr Sagar Ghuge, Research Scholar, is working under DML team member Prof Milind Akarte. His proposed research area is Additive Manufacturing. Mr Sagar has recently presented his Literature Review and Pre-Registration seminar. In addition, he has recently published a research paper as below.
 - Sagar Ghuge and Milind Akarte "Investigating the Role of Additive Manufacturing (AM) in Spare part Management.", International Conference on Operations and Supply Chain Management (SIOM's ICOSCM)", 17th January 2021, pp 16-20, e- ISBN: 978-93-89947-29-8



- 3. Mr Shreyanshu Parhi has Presented his 2nd Credit seminar. He is working under the guidance of DML team members Prof. Kanchan Joshi and Prof Milind Akarte. The research publication based on this research work is as follow:
 - ✓ Smart manufacturing: a framework for managing performance, Shreyanshu Parhi, Kanchan Joshi & Milind Akarte (2021), International Journal of Computer Integrated Manufacturing, 34:3, 227-256
- 4. Professor Milind Akarte submitted a research proposal titled "Investigate the impact of Additive Manufacturing technology on the Spare parts Industry by Segmentation Approach" for a total cost of Rupees 17,25,000/along with Co-principal investigators Professor Manoj Tiwari, Director-NITIE and Professor K. P. Karunakaran, IIT Bombay for the Core Research Grant, to the Science and Engineering Research Board (SERB) of Govt of India (File Number: CRG/2021/004228) on 08-Mar-2021.

Working research papers:

- ✓ Harshad Sonar, Vivek Khanzode, Milind Akarte, Ranking sustainable additive manufacturing enablers by DEMATE
- ✓ Harshad Sonar, Vivek Khanzode, Milind Akarte, "Additive manufacturing supply chain management: A literature review and research directions."
- ✓ Harshad Sonar, Vivek Khanzode, Milind Akarte, "Additive manufacturing implementation: Empirical analysis for supply chain practices and firm competitiveness using SEM-ANN approach". This manuscript is being developed in collaboration with Professor Campbell Ian and Professor Eyers Daniel.
- ✓ Shreyanshu Parhi, Kanchan Joshi and Milind Akarte, Factors Affecting Industry 4.0 Adoption - A Hybrid SEM-ANN Approach, This manuscript is being developed in collaboration with Professor Thorsten Wuest



INDUSTRIAL ENVIRONMENT LABORATORY

Introduction and Objectives of the Laboratory

The Industrial Environmental laboratory was established in 1990 with the objective and focus of research in industrial pollution control. With the growing impacts of industrial processes on the environment, impact assessment of these operations on air, water, and soil become inevitable. To meet the above requirements, the industrial environment lab monitored water, air quality and noise quality.

Resources

Prof. Vidyadhar V. Gedam coordinated the lab during the year with one technical staff.

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 Activities

Analysis of various environmental samples was conducted during the year. Several Demonstrations of environmental instrumentation to students and researchers were performed. The laboratory sought and submitted research proposals for external research grants. Experimentation and analysis of various samples are under research projects (i.e. SARASWATI and other research projects).

Laboratory outcomes

- 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-2) research project are being carried out with the help of this lab.
- The fellow and research scholars in Sustainability Management (SM) area also use the lab facility for their research. In addition, noise & Hearing Measurement equipment in the Industrial Environment laboratory is used by the students of the Post Graduate Diploma in Industrial Safety & Environmental Management (ISEM) to have "Hands-on" experience for various courses in Environment Health and Safety (EHS) area. The same is also used for demonstration to the MDP and UBP participants in the SM area.
- The instruments and physical facility have been used during the year 2020-2021 to teach the students of the Postgraduate Programme in Industrial Safety and Environmental Management (ISEM) for subjects like solid waste, water and wastewater, hazardous waste, air and noise management, noise and





CENTRE FOR ENVIRONMENTAL STUDIES

This centre was set up in 2009 to enhance research avenues in Environmental Studies. Prof. Anju Singh took over as coordinator in April 2020. Progress from 31 March 2021 to 30 June 2021.

Infrastructure	Two computers and printer purchase are in process. GaBi software was upgraded with new licenses, and training is being organized for faculty and staff. Shifting of CES to a new location.
Human Resource	The appointment of a JRF is underway
MoU	MoU was signed with EMC and Ecokonnect for training, research and government initiatives for five years.
Training	Series of training programs are being organized in Environmental Management and Sustainability with EMC and Ecokonnect. Other training programs in discussion with other organizations.
Research	Circular Economy of e-waste management CDP carbon data analysis and publication CDP water data analysis and publication CDP forestry data analysis and publication
Publications	Panchal, R. and Singh, A. Accepted (in press) 'Asian case studies on the circular economy – a literature review', Progress in Industrial Ecology, An International Journal, Accepted (in press) Panchal, R. and Singh, A. 'Analysing the Circular Economy Implementation in the European Countries, International Journal of Environment and Waste Management, Accepted (in press) Purva Mhatre, Rohit Panchal, Anju Singh, Shyam Bibyan, A Systematic Literature Review on the Circular Economy initiatives in the European Union, Sustainable Production and Consumption, Volume 26, April 2021, Pages 187-2021. Anju Singh, Mayuri Naik, Circular Economy Potential of E-waste Collectors, Dismantlers, and Recyclers of Maharashtra: A Case Study, Environmental Science and Pollution Research, Environ Sci Pollut Res Int, 2020 Jun; 27(17):22081-22099, DOI: 10.1007/s11356-020-08320-3.Epub 2020 Apr 14, Ref.: Ms. No. ESPR-D-19-04040R3. Shrivastava, S., & Unnikrishnan, S. (2020). Life Cycle Sustainability Assessment of crude oil in India. Journal of Cleaner Production, 124654. 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, (accepted)



Conferences

Shrivastava S, Unnikrishnan S., (2020). "Sustainability in the Oil Sector." Virtual conference on oil and gas technology, Sciinov group (9th November 2020)

Shrivastava S, Unnikrishnan S., (2020). "Social Sustainability in the Indian Oil Sector: Study of Oil Refineries and Oil Storage Units". 8th ASSP India Chapter Professional Development Conference on "Striving towards Sustainability through innovation & Digitalization in HSE" (27 June 2020, Digital Platform)

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).



CENTRE FOR INNOVATION, INCUBATION AND ENTREPRENEURSHIP (CIIE)

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

Sr. No.	Activity Name	Details	Photo(s)
1.	CIIE Logo Design Competition. February 2021	The logo design competition was conducted in February for all the NITIE Students. Guidelines for the same were given. A total of 21 students participated in the competition. The review committee was formed in March, and results were declared.	Production of Berner.
2.	CIIE Ideation contest. March 2021	Ideation competition was conducted for NITIE students to encourage them for Startups and entrepreneurship. Participants were asked to send their startup idea in the form of PowerPoint presentations. A total of 15 teams participated in the competition. The individual presentation of each team was reviewed by reviewing the panel of CIIE in online mode.	
3.	CIIE Video Making Competition. March 2021	CIIE video making competition was conducted on the theme "NITIE entrepreneurship Environment". A total of 4 teams participated in this competition. This competition was conducted in March.	





Sr. No.	Activity Name	Details	Photo(s)
4.	A Visit to IDC, IIT Bombay 12 th March 2021	CIIE Team Three professors and two students visited the IDC design centre at IIT Bombay	
5.	CIIE Entrepreneurship Talk Series. 10 March 2021	A talk on "Entrepreneurship and Innovation as a career" by Prof. Sudhir Jain (IIT Delhi) was conducted for all NITIE students and Faculties. The talk was conducted on 10 th March 2021.	Share State State of

OUTREACH: INSTITUTE – INDUSTRY COLLABORATION

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



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MANAGEMENT DEVELOPMENT PROGRAMMES

MANAGEMENT DEVELOPMENT PROGRAMMES CONDUCTED DURING 01/04/2020 TO 31/03/2021

Sr. No.	MDP Title	Periods	Days	Course Leaders	Total No. of Participants
1.	Managing and Leading Virtually	6th July to 1st August 2020	5	Prof. Upasna A Agarwal	11
2.	Strategic Marketing for Reconnecting Customers	13-17 July 2020	5	Prof. Sanjeev Verma Prof. Ranjan Choudhuri Prof. Neeraj Pandey	14
3.	Harnessing Digita Capabilities for Downstream Companies	23-24 July 2020	2	Prof. Hema Date Mr M. D. Agarwal (Guest Faculty)	39
4.	Application of IA/ML in Operations & Supply Chain Management	22 August - 06th Sept 2020 (3 Weekends)	5	Prof. Sushmita Narayana Prof. Priyanka Verma Prof. Debabrata Das	10
5.	Industrial Engineering for Productivity (International MDP)	31 August - 04 Sept 2020	5	Prof. KVSS Narayana Rao	11
6.	Project Management in a Disruptive World	10-14 Sept 2020	5	Prof. V. B. Khanapuri Prof. Kanchan Joshi	11
7.	Financial Time Serious Modeling Using Python	10th -11th & 16th - 18th October 2020	5	Prof. Ajaya Kumar Panda	9
8.	Sustainability Portfolio & Sustainability Analytics	12th - 14th October 2020 (15 Hrs)	3	Prof. Hema Diwan Prof. Anju Singh	7
9.	Business Analytics for Consumer & Employee Relationship Management	26th - 31st October 2020	5	Prof. Neha Srivastava Prof. Poonam Singh Prof. Sumi Jha	12
10.	Excellence in Virtual Human Communication	07 - 08 November 2020 (15 Hrs.)	2	Prof. Nikhil K. Mehta	5
11.	Creating Value Through Innovation &Technology Transfer Analytics	20th - 24th November 2020	5	Prof. Ruchita Gupta	12
12.	Manufacturing Analytics	24th - 27th Nov 2020	4	Prof. L. Ganapathy Prof. D. Jinil Persis	4



Sr. No.	MDP Title	Periods	Days	Course Leaders	Total No. of Participants
13.	Sustainable Supply Chain Management in Post Covid-19 era	07th - 11th December 2020	5	Prof. Vidyadhar V. Gedam Prof. Seema Unnikrishnan Prof. Shirish Sangle	11
14.	Business Decision Making During Covid-19	14th - 18th December 2020	5	Prof. Vijaya Gupta Prof. Utpal Chattopadhyay	10
15.	Effective Communication, Team Dynamics and Conflict Management	14th - 16th January 2021	3	Prof. Nikhil K. Mehta	5
16.	Developing Commercial & Financial Skills for Strategic Business Decision	23rd, 24th, 30th, 31st January 2021 & 06th Feb 2021	5	Prof. K. S. Ranjani	6
17.	Work Study for Productivity	01st - 05th February 2021	5	Prof. Milind Akarte	5
18.	Financial Analytics with time Series Modelling and Neural Networks using Python	06th-20th February 2021	5	Prof. Ajaya Kumar Panda Prof. Rakesh Verma	8
19.	Understanding Economic Indicators for Managerial and Business Decision Making	10th - 15th February 2021	5	Prof. Mainak Mazumdar	18
20.	Project Planning & Scheduling	15th - 17th February 2021	3	Prof. V. B. Khanapuri Prof. Kanchan Joshi	10
21.	Application of IA/ML in Operations & Supply Chain Management	06th - 14th March 2021	4	Prof. Sushmita Narayana Prof. Priyanka Verma Prof. Debabrata Das	6
22.	Thinking Strategically, Business Strategies to Navigate the VUCA world and attain competitive advantage	12th - 19th March 2021	5	Prof. S. S. Bhattacharya	10
23.	Business Competitiveness Through Operational Excellence	15th - 19th March 2021	5	Prof. B. E. Narkhede Prof. Jinil Persis	15
24.	Project Procurement and Contract Management	22nd - 26th March 2021	5	Prof. V. B. Khanapuri Prof. Kanchan Joshi	8
25.	Application of Time Series Modelling for Business Forecasting	22nd - 26th March 2021	5	Prof. Poonam Singh Prof. Ajaya Kumar Panda Prof. Mainak Mazumdar	8
26.	Short ADHOC Course - Six Sigma Green Belt	06th March 2021 (30Hrs)	6	Col. Santosh Kumar Dabral	27



UNIT-BASED PROGRAMMES (UBP)

Sr. No	Name of Organisation	Course Title	Period	Days / Hrs.	Course Leader	No. of participants
1.	M/s. Accenture Services Pvt. Ltd.	Sustainability in chemical Industries and way forward	22-26 June 2020	30 Hrs.	Prof. Seema Unnikrishnan	48
2.	M/s. Vivekananda Global University	Case Writing & Teaching	26-28 June 2020 (3 Hrs. Each Day)	15 Hrs.	Prof. Neeraj Pandey/ Prof. Sumi Jha	25
3.	M/s. Bharat Petroleum Corporation Ltd.,	HAZOP, QRA & ERMDP	22-25 September 2020 (Six Session of 3 Hrs. each)	18 Hrs.	Prof. Seema Unnikrishnan	39
4.	M/s. Hindustan Petroleum Corporation Ltd.	Foundation courses on Operation Management - Batch - I	23rd & 26th September 2020 (12 Hrs.)	12 Hrs.	Prof. Ruchita Gupta	40
5.	M/s. Hindustan Petroleum Corporation Ltd.	Foundation courses on Operation Management - Batch - II	10th & 17th October 2020 (12 Hrs.)	12 Hrs.	Prof. Ruchita Gupta	40
6.	M/s. Bharat Petroleum Corporation Ltd.,	PSM, LOPA, MOC and Accident Investigation Techniques	09-11 November 2020 (Five Session of 3 Hrs. each)	15 Hrs.	Prof. Seema Unnikrishnan Prof. Rauf Iqbal	40
7.	M/s. Leaderonomics India Pvt. Ltd.,	Project Management	08th February 2021	3 Hrs.	Prof. Kanchan Joshi Prof. V. B. Khanapuri	3
8.	M/s. Hindustan Petroleum Corporation Ltd.	PSM, MOC, HAZOP and Incident Analysis (Process Safety Management)	10th February 2021 (3 Hrs.)	3 Hrs.	Prof. Seema Unnikrishnan Prof. Rauf Iqbal	40
9.	M/s. Indian Oil Corporation Limited,	Risk Analysis and HAZOP Study	16th - 18th February 2021	3 Day	Prof. Shankar Murthy Prof. Rauf Iqbal	50
10.	M/s. Hindustan Petroleum Corporation Ltd.	PSM, MOC, HAZOP and Incident Analysis (Process Safety Management)	19th March 2021 (3 Hrs.)	3 Hrs.	Prof. Seema Unnikrishnan Prof. Rauf Iqbal	40



CONSULTANCY SERVICES

COMPLETED NITIE CONSULTANCY ASSIGNMENT (2020-21)

Sl. No.	Name of the Organization	Area
1.	M/s. Silica Ceramica Pvt. Ltd., (A Subsidiary of M/s. Prism Johnson Ltd., Vijayawada Plant	Manpower Study

CONSULTANCY IN PROGRESS Year 2021-22

Sl. No.	Name of the Organisation	Area
1.	M/s. TVS Institute for Quality & Leadership Bangalore	Industrial Workplace Improvement Study
2.	M/s. Haldia Petrochemical Ltd.,	Organizational Structure
3.	M/s. TVS Motor Company, Hosur Tamil Nadu	Operations Research Module
4.	M/s. Bajaj Electricals Ltd., Mumbai	Plant Capacity Assessment



MEMORANDUM OF UNDERSTANDING (MOUS)

Name of Industry	Date of signing of MoU	Duration	Name of NITIE Coordinator
Ohio University	24.4.2019	5 year	Prof. Anju Singh
University of Fortaleza	20.11.2019	5 year	Prof. Anju Singh
Punjab Engg.College	30.9.2019	5 year	Prof.Ashok Pundir/Prof. Rauf Iqbal
Asian Institute of Technology	9.9.2020	5 year	Prof. Neeraj Pandey
TVS Industries	7.4.2014	5 year	Prof. AK Pundir
Administrative Staff College	24.2.2020	5 year	Prof. Koteswara Rao Naik
Ministry of Higher Education	April 2020	1 year	Prof. Vijaya Gupta
Silicon Valley	20.5.2020	3 year	Prof.Sumi Jha
09 Solutions Management India	29.6.2020	5 year	Prof. V.B. Khanapuri
BTC	13.10.2020	3 years	Prof. V.B. Khanapuri
P&G	20.1.2021	1 year	Prof. V.B. Khanapuri
MCED	28.1.2021	3 years	Prof. Hema Date
Samvad (Dhanush)	1.2.21	5 years	Prof. Hema Date



WEBINARS / ONLINE TALKS / SESSIONS / WORKSHOPS AND INSTITUTIONAL ACHIEVEMENTS

Global Online Certification Course in Supply Chain Digitization and Management

NITIE, Mumbai successfully conducted the 'Global Online Certification Course in Supply Chain Digitization and Management' on 16th January 2021 with Prof. David Simchi-Levi (Director, Data Science Lab and Professor - Business and Supply Chain Analytics at Massachusetts Institute of Technology (MIT), USA) and Prof. Manoj Tiwari - Director, NITIE. The event was graced by:

- Shri Suresh Prabhu, six-time Member of Parliament,
- Dr Anil Sahasrabudhe, Chairman, All India Council for Technical Education Chairman,
- Dr R.S. Sodhi, MD GCMMF (Amul),
- Mr Sanat Chattopadhyay, President Merck India,
- Mr Pradeep Goyal, MD Pradeep Metals Limited,
- Mr Shashi Kiran Shetty- Chairman, BoG NITIE Mumbai, and MD Allcargo Logistics Limited,
- Mr Atul Kulkarni- Independent Consultant BoG, NITIE and
- Dr Madhu Ranjan Joint Secretary, Ministry of Education, along with
- Dr Darshana Dabral-Joint Financial Advisor to the Ministry of Education -





The course execution and publicity were done completely in house under the leadership of our Director, Prof. Manoj K Tiwari. The team consisted of 3 faculty coordinators - Prof. Sushmita Narayana, Prof. Priyanka Verma and Prof. Debabrata Das, and the student coordinators - Mr Reshu Agarwal and Mr Aditya Singh spearheaded the end-to-end management of this course. They were supported by a team of highly enthusiastic and talented first-year students. Ms Priti Bhole, Mr Jyothikrishnan T S, Mr Girish Kumar, and Ms Uma Chilukuri. Additional support was given by a team of Fellow students - Ms Lavanya Meherishi, Mr Sawyasachi Awasthi, Ms Priya Ambilkar, Ms Rosalin Sahoo, Mr Ashutosh Mishra and Mr Dheeraj Kumar.

The course received an overwhelming response with 2500+ individuals from 250+ prestigious national and international organizations from 13+ countries engaging in learning over ten weeks. In addition, the Program was live on the YouTube channel of NITIE.

NITIE and P&G: Joint research projects

NITIE and P&G signed a memorandum of association to pursue joint research projects and explore new practices in supply chain management. In addition, both NITIE and P&G agreed to work together and disseminate awareness and knowledge on equality and inclusion for Supply chain professionals.



Webinar on Technology-enabled holistic education

A webinar on Technology-enabled holistic education on 30th September 2020 to discuss ways to integrate technology in implementing National Education Policy-2020. This webinar emphasised the role of technology in improving education in rural settings. Five hundred thirty-two participants registered for the programme. The deliberations were made with evolving technology to improve academic settings in rural India.

Director, NITIE Prof. Manoj Kumar Tiwari delivered the welcome speech emphasising NITIE coining an initiative regarding the new education policy implementation through technology to improve education in villages. Governor of Maharashtra addressed NITIE webinar on National Education Policy. NITIE has organised a webinar on "National Education Policy: Contribution of Indian Values to Education" on 11th September 2020 from 11.30 a.m. to 12.35 p.m. This webinar aimed at the contribution of the Indian Value System in our Education System in the context of New Education Policy.





Shri Bhagat Singh Koshiyari, the Honourable Governor of Maharashtra & Goa, was the Chief guest of this webinar. Dr Vinay Sahasrabuddhe, MP & Chairman Parliamentary Standing Committee on Education; Dr Aniruddha Deshpande, Former Principal BMCC Pune; Prof Sanjay G. Dhande, Chairman NITIE Board of Governors & Shri Atul Kulkarni, Member NITIE Board of Governors were the renowned panellists of the Webinar. NITIE faculty Prof. Upasna A Agarwal and Prof. Vivekananda B. Khanapuri also participated in the event. Prof. Nikhil K Mehta moderated the event.





Interactive Session of Women Development Cell

Women Development Cell, NITIE Mumbai, invited Ms Madhuri Sahasrabudhe on 31st January 2021 to the NITIE campus to share her experiences on her journey. She mesmerised the audience with her talk on "Mothers on Wheels from Delhi to London". She and her team of 3 other mothers went on a self-driven road trip of 23650Km covering 20+ countries interacting with a wide range of women in these countries and studying motherhood and its impact on the culture of society country. Mrs Madhuri Sahasrabudhe was the Chairperson of the Foundation for Holistic Development in Academic Field - FHDAF.



Webinar on Teachers' role in NEP implementation

NITIE organised a webinar on "Teachers' role in NEP implementation" on 24th March 2021, as envisaged by the Ministry of Education, Govt. of India and as a part of series of initiatives by Bhartiya Shiksha Mandal. The session was inaugurated by Prof.Manoj Kumar Tiwari, Director, NITIE, Mumbai. The keynote speaker was Shri. Satish Modh, Director of Vivekananda Education Society's Institute of Management Studies and Research, Mumbai. His elaborate explanation of the New Education Policy was followed by a valuable and insightful discussion among the faculties.

Online Faculty Development Programmes

Sl. No.	Speaker	Topic
1.	Prof. David Simchi-Levi Professor of Engineering Systems at Massachusetts Institute of Technology and Head of the MIT Data Science Lab	Supply chain resilience and need for stress tests
2.	Prof. Jagdish Sheth, Charles H. Kellstadt, Professor of Business at Emory University - Goizueta Business School, USA	
3.	Prof. Rajiv Kumar Srivastava, IIM Lucknow.	Perspectives on Excellence in Teaching
4.	Prof. (Dr.) Soundar Kumara, Allen, E., and Allen, M., Pearce Professor of Industrial and Manufacturing Engineering at Pennsylvania State University, U.S.A.	
5.	Prof. Noshir Contractor, Jane S. & William J. White Professor of Behavioral Sciences in the McCormick School of Engineering & Applied Science, the School of Communications and the Northwestern University - Kellogg School of Management.	from the Web to Leverage Network Insights
6.	Prof. Prasad Modak, renowned academician and researcher in the field of Environmental Science & Engineering.	Circular Supply Chain
7.	Prof. R Vaidyanathan, Retired Professor, IIM Bangalore	Financial Management



INSTITUTIONAL ACHIEVEMENTS



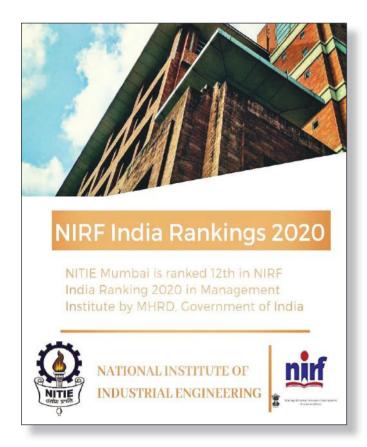
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NIRF Ranking 2020

Management Institutes by the Ministry of Human Resource Development, Government of India. NITIE recorded a massive jump from 29th in 2019 to 12th Rank in 2020.



Triennial Conference - Asian Conference on Ergonomics and Design (ACED)- NITIE Mumbai has won the bid to host the prestigious Triennial Conference - Asian Conference on Ergonomics and Design (ACED) in 2023. Previously, the ACED conference has been hosted by Ulsan National Institute of Science and Technology, South Korea (2014), Nihon University, Japan (2017), De La Salle University, Philippines (2020), and the next host shall be NITIE Mumbai, India (2023). Prof. Rauf Iqbal has been handed over the baton of the ACED 2023 to NITIE Mumbai virtually on 4th December 2020 by Prof. Rosemary Seva, the organizer of 3rd ACED 2020 Philippines.

NITIE in top 2% of scientists' list

• Prof. Manoj Tiwari, Director, NITIE; Prof. Upasna A Agarwal and Prof. Rakesh Raut were amongst the top 2% of scientists' list released by Stanford University. The scientists were organized into 22 scientific fields and 176 sub-fields using the citations from Scopus and data assessing scientists for career-long citation impact until 2019 and for citation impact during a single calendar year. The study has been published in PLOS Biology. Led by Dr John PA Ioannidis of Stanford University, this research team has created a database of over 100,000 top scientists of the world based on standardized citation indicators







- Prof. Koteswara Rao Naik was conferred with the 'Most Outstanding Professor' award by World Education Congress and Global Edu Tech.
- Prof. Ajaya Kumar Panda received the AIMS
 Outstanding Management Researcher Award
 (2021) presented by AIMS International (The
 Association of Indian Management Scholars)
 for its significant contribution towards
 management research.





- Professor Rekha Chikhalkar was nominated as an 'Expert Evaluation Committee Member' for the final round evaluation of the National Educational Alliance for Technology (NEAT) Product in Nov 2020.
- Prof. Ranjan Chaudhuri received All India Council for Technical Education – SKS Maulana Abul Kalam Azad Excellence Award of Education 2020
- Prof. Ranjan Chaudhuri received the Best Academician of the Year Award (Male) at the 2nd International Academic and Research Excellence Awards (IARE) 2020.
- Prof. Ranjan Chaudhuri received the Bombay Management Association (BMA) Outstanding Faculty of India Award.
- Prof. Ranjan Chaudhuri received Inside IIM Professor of the Year 2020

STUDENTS AFFAIRS AND ACTIVITIES



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STUDENT AFFAIRS AND ACTIVITIES

Placements

1. Summer Internship (Class of 2022)

In all **475** students out of a total **475** students of PGDIE, PGDIM, PGDISEM, PGDMM & PGDPM first year batches (100%) were placed by 25 March 2021, in **118** organizations across the country. In addition, the students successfully pursued their 8-weeks Summer Internship that shall commence from 05 April 2021.

2. Final Placements (Class of 2021)

All **480** students out of **480** students for final placement from PGDIE, PGDIM, PGDISEM, PGDMM & PGDPM (second year) (100%) were placed in **126** organizations across the country by 31 March 2021. The details of the final placements up to 31 March 2021 are mentioned below:-

Sr. No.	Particulars	Year: 2020-21 (As on 31 March 2021)					
1.	No of companies	126					
2.	No of students placed	PGDIE	PGDIM	PGDISEM	PGDMM	PGDPM	Total
	PPO	25	89	03	07	08	132
	Domestic	92	175	15	30	31	343
	Foreign	02	02	00	00	01	05
	Total Placed	119	266	18	37	40	480
3.	No of Students yet to be placed	00	00	00	00	00	00
4.	Total number of students available for placement	119	266	18	37	40	480
5.	No. of students opted out of Placements	01	02	01	00	00	04

Student Activities

- **a. Safety Precautions against COVID-19 Spread out**: Given the COVID-19 pandemic situation, the Institute, as per the guidelines of MHRD, Govt. of India, informed/appealed to all the NITIE students on 14 March 2020 to temporarily relocate themselves to their native places for their safety and precautions. Given the above, out of 967 NITIE students, 899 left for their hometowns by 21 March 2020. NITIE took care of 67 students who could not travel to hometown due to transportation problems, remote locations, and pandemic. Institute provided them with the mess facilities, sanitizations, and medical aids. There was not a single case of COVID-19 was reported in the hostels during the year.
- b. ABHISANSKARAN 2020 (24, 25 & 26 July 2020): Abhisanskaran-the orientation program for NITIE's new Batches of 2020 started on 24 July 2020 with a warm welcome to the new students. The inauguration session was addressed by the Director, Prof Manoj Kumar Tiwari and all the Deans of the Institute. Faculty Members and Officers of the Institute also welcomed incoming students virtually. Approximately 575 students joined online for the inaugural function. Abhisanskaran events on 25 & 26 July 2020 were organised to inform the new students about the institute infrastructure, various academic



areas, rules and regulations, facilities available by the deans, programme coordinators, area coordinators, medical officer, chief warden and hostel wardens, library and information officer, manager-DISC. Prof. Sumi Jha moderated the proceedings.

c. Prerana First Lecture (21 July 2020): To bring the country's best minds to address the socio-economic issues and motivate students to be thinkers, Team Prerana organized the session on "Re-imaging Supply Chain in Indian Economic post-COVID-19 and impact of Atmanirbhar Bharat". The team created a platform for the students to interact with stalwarts from various domains. Shri Sanjeev Sanyal - Principal Economic Adviser, Government of India, was the keynote speaker.

d. Value Added Workshops

Prof. Nikhil K Mehta conducted a valueadded online workshop for the senior batch of students on CV Writing on July 14, 2020, and July 17, 2020. During the workshop, the handson experience of designing a CV was covered. The session helped the students understand the differences between Resume and CVs and their strategies to design a CV. He conducted the online workshop for the senior students on Presentation Skills on July 01, 2020, and July 04, 2020. The workshop was conducted that enabled students to diagnose their difficulties in presentation and public speaking skills. Interventions were presented to the students to support them in dealing with their difficulties. Prof. Nikhil K Mehta also conducted three valueadded online workshop sessions for VLFM students on Effective Communication Skills. The workshops were conducted on August 05, 07 and 10, 2020 and included fundamentals on communication for team efficacy, leadership challenges, ethical dilemma, role conformity and workplace challenges.

e. Rotaract Club of NITIE: Rotaract Club of NITIE raised funds for the 'Distribution of Sanitary Pads' in association with an NGO named, Padsquad. Rotaract Club of NITIE raised Rs.14573 for sanitary pads distribution in Kotri Village, Bhilwara Rajasthan, through Ms Jinal, District Secretary of Rotaract 3141.



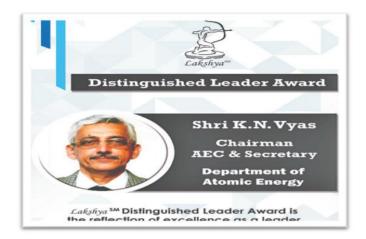
f. Avartan (31 Oct 2020 to 08 Nov 2020) – In the wake of the pandemic, Avartan-the annual programme was conducted online this year. Various events were organised under the umbrella of Avartan-2020.

(i) LakshyaSM Distinguished Leader Award

Every year 'LakshyaSM Distinguished Leader Award' is conferred in recognition and appreciation of achievements to the leaders with exemplary vision. This year "LakshyaSM Distinguished Leader Award 2020" was conferred upon Shri. K.N. Vyas.

Shri K.N. Vyas, a top Nuclear scientist, is Chairman of the Atomic Energy Commission & Secretary, Department of Atomic Energy (DAE). He was earlier Director of Bhabha Atomic Research Centre (BARC), who worked for over 40 years in atomic energy. He is also a recipient of several honours & awards such as the Indian Nuclear Society Outstanding Service Award, 2011, Homi Bhabha Science and Technology Award, 2006 and the Dr N. Kondal Rao Memorial Award, 2017.





(ii) LakshyaSM Business Conclaves

vear LakshyaSM Industrial Every Engineering Conclave provides an annual platform for meaningful discussions amongst the industry leaders from various organizations. In addition, this programme enables students to get acquainted with the latest industrial engineering trends and emerging technologies. This year 'LakshyaSM Industrial Engineering Conclave' witnessed Eminent speakers from various backgrounds. They spoke on the topic: "Evolving Role of Industrial Engineering in Post-Pandemic World". The esteemed dignitaries for the LakshyaSM Industrial Engineering Conclave 2020 were:

- Dr Rajen Mehrotra, Former International Civil Servant, United Nations – International Labour Organization.
- Dr S Devarajan, Senior Vice President (Production Engineering), TVS Motor Company.
- Mr Yashpal Singh Negi, Chief Operating Officer, Subros Ltd.
- Mr Rama Shanker Singh, Chief Productivity Services Division Tata Steel.



(iii) Supply Chain Management Conclave

The LakshyaSM Supply Chain Conclave brought together leaders, achievers, and change-makers. Focused on Supply Chain, this event brought valuable learning experiences for young budding managers, decision-makers from various industries, and students. The Supply Chain Management Conclave theme was "Supply Chain Disruptions: Risk Mitigation, Recovery, and Opportunities". The esteemed dignitaries for the LakshyaSM Supply Chain Management conclave were:

- Mr Vinay Kushwaha, Chief Supply Chain Officer, Britannia Industries Limited.
- Mr Vivek Sarbhai Sr. Director Supply Chain & EHS, ThermoFisher Scientific.
- Mr Akhil Srivastava, Director South Asia, Anheuser-Busch InBev
- Mr Ashok Pareek, Sr. Director -Strategic Sourcing & Procurement, Honeywell Technologies
- Mr Jagadeesh Kunchey, Vice President-Supply Chain & Logistics, ITC Limited





iv) Manufacturing Conclave

The LakshyaSM Manufacturing Conclave brought together globally renowned thinkers, innovators, 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. The topic of the Conclave was "Leveraging AI & ML for Enhancing Operational Performance". The distinguished speakers for the LakshyaSM Manufacturing Conclave were:

- Mr Ashok Sinha, Director- Supply Chain Management (India Engine Business), Tata Cummins Pvt. Ltd.
- Mr Piyush Pandey, Director- Plant Operations, Schneider Electric
- Mr Sunit Mukherji, Associate Director- Plant & Transformation Lead (Induri), Mondelez India Foods Private Limited.
- Mr Rahul Awasthi, Head- Planning & Technology (Homecare-South Asia), Hindustan Unilever Limited.

The conclave delivered an in-depth understanding of the challenges faced by industries. In addition, speakers talked about inherent opportunities and innovations options that remain within these challenges. The conclave was well received.



(v) LakshyaSM On the Job Achievers' Contest (OJAC)

On the Job Achievers' Contest has been an ideal platform for budding & practising managers to present their respective organisations' innovative and path-breaking projects. The projects are judged by an elite jury panel consisting of industry stalwarts. It is a confluence of best practices, technological advancements, implementations, and impact on the industry and equips the budding managers with the latest trends and advancements. Every year On the Job Achievers' participation comes from verticals such as Supply chain Management, Systems & IT Management, and Industrial Engineering and Operations Management. In addition, many organizations such as Apollo Tyres Ltd., Mahindra and Mahindra, Ashok Leyland, Lupin Ltd., Johnson and Johnson, Mondelez International Ltd., Granules India Ltd. Participated in the event. In addition, we were privileged to have an esteemed jury panel for the event hailing from diverse backgrounds.

- Mr Sandeep Baxla, Senior Vice President, Indofill.
- Mr Rajib Saha, Senior Director, Flipkart
- Mr Manoj Deorukhkar, Chief Information Officer, Sterling and Wilson



- Mr Kunal Dikshit, Chief Technology Officer, Reliance- Lending and Capital Markets
- Mr Shyam Govindan, Partner, Strategy & Operations, Deloitte
- Ms Kavita Kaushik, Director Quality
 Power System Business, Cummins India Ltd
- Mr Prakash Mahale, General Manager/ Head Operations, Sintex Plastics Technology Limited
- Mr Rohit Bhatiani, Associate Vice President Strategy, Bennett Coleman and Co. Ltd. (Times Group)
- Prof Purnima Sangle, Professor, NITIE Mumbai
- Prof Vivek Khanzode, Associate Professor, NITIE Mumbai
- Prof Sushmita Narayana, Assistant Professor, NITIE Mumbai

The event concluded with felicitation of the following winners:

- OJAC-Supply Chain Management Module-2020
 - o Winner Mahindra and Mahindra
 - o Runner up Mondelez International Limited
- OJAC- System and IT Management Module- 2020
 - o Winner Mahindra and Mahindra
 - o Runner up Johnson and Johnson
- OJAC-Industrial Engineering and Operations Management Module-2020
 - o Winner Lupin India Limited
 - o Runner up Mahindra and Mahindra



(vi) Lakshwiz - The Flagship Case-Coms.'

Under the umbrella of LakshyaSM, Lakshwiz is a galaxy of case study competitions conceptualized to serve the country's best brains with real-time business problems/cases. The case study contest covers the verticals:

- Factory- SCM case study contest,
- Bazaar Marketing case study contest, and
- D-Street Finance case study contest.

Lakshwiz Factory

This year, LakshyaSM collaborated with LEAP India Private Limited and Knowledge Partner ISCEA - International Supply Chain Education Alliance, presented the "Lakshwiz Factory" to over 600 brilliant minds from more than 50 B-Schools across the country. The teams with the top six entries were selected as national finalists. They presented their findings and recommendations to the distinguished jury members comprising of:

Mr Rajesh Shidore, Senior Vice President, <u>LEAP India</u> Private Limited,

Mr Girinath Deshpande, Lead-Supply Chain Reinvention, Mondelez India Foods Private Limited

Prof. Gaurav Kabra, Assistant Professor, NITIE Mumbai.



Institute of Management Technology, Ghaziabad won the event while the Indian Institute of Management, Bangalore, was the runner up.

Lakshwiz Bazaar

"Lakshwiz-Bazaar" tests the participant's knowledge of multiple facets of marketing. True-blue marketing aficionados vie for this coveted title. Each round promises to be more challenging than the previous one and will ensure that it tests the teams on their ability to think on their feet, apply their knowledge in practical situations, and most importantly, think out-of-thebox. Out of the 500 brilliant minds this year from top-notch B-Schools all over the country, and after three consecutive rounds, the finalists presented their solutions for the case in the field of Consumer marketing and Revamping strategy, which was framed under the guidance of Prof. Neeraj Pandey to an esteemed jury panel.

We had the privilege to host the elite jury panel comprising:

- Mr Saurabh Bajaj, Marketing Head-Dairy, Britannia Industries Limited
- Mr Nikhil Davda, Senior General Manager, Mahindra Lifespace Developers Ltd.
- Prof. Neeraj Pandey, Associate Professor, Marketing, NITIE

Indian Institute of Management, Ranchi (IIM Ranchi) won the contest while Symbiosis Institute of Management Studies, Pune, emerged as the runner up.



Lakshwiz D-Street

"Lakshwiz D-Street" provides decisionto students making opportunities through its complicated format. It also provides them opportunities to test their knowledge of financial management. Over 300 students from the top 30 B-Schools all over the country participated in the event. The top 6 finalists qualified and presented their solutions for the case to an esteemed jury panel consisting of Mr Siddhartha Rastogi, Managing Director & Chief Operating Officer, Ambit Capital Asset Management, Mr Gourav Gupta, Vice President, Natwest Group, and Prof. K.S. Ranjani, Assistant Professor, NITIE Mumbai. Indian Institute of Management, Shillong was the winner and Indian Institute of Management, Nagpur emerged as the runner up.





(vii) Sparsha

Like every year, Sparsha offered two projects to the B-School students from all over the country.

- NGO Project- This contest is a bid to provide NGOs with a platform to showcase their projects before a corporate jury.
- **CSR Project-** Corporates display their humanitarian work through their CSR projects to raise awareness about various issues that they are focusing on and portray their sustainability measures.

The distinguished jury panel comprised of:

- Mr Ashwini Saxena, CEO, JSW Foundation
- Mr. Narasimha Rao, MD, Gudel India Pvt. Ltd.
- Mrs. Puja Marwaha, CEO, CRY Foundation
- Prof. Seema Unnikrishnan, Professor NITIE
- Prof. Shankar Murthy, Professor NITIE

The students and participants got insights into societal issues and how companies/NGOs are solving them. A panel discussion on 'CSR 2.0: Future of Sustainable business after Covid Recovery' was conducted. The event was concluded with the felicitation of winners.

- Winner CSR: Mahindra Logistics Limited
- Winner NGO: Masoom
- Runner up CSR: Bharat Petroleum Corporation Limited
- Runner up NGO: NIROG



In this 21st Edition of the event, we witnessed corporates visiting on virtual platforms from various organizations & sectors. In the wake of the COVID-19 scenario, Team LakshyaSM experimented and shifted Avartan to an online platform this year. The online format of our programme was well received.

B) PRERANA

(i) Prerana Business Meet

The Prerana Business Meet (PBM), a flagship event of Prerana, is a conclave for the country's most influential leaders. They discuss the current critical issues of business and its impact on the country's economic and geopolitical growth through business talks. In addition, leaders share their philosophies and success mantras with the industry and academia alike.

This year the panel of leaders shared their views on the topic, "Building Self Reliant India - An invaluable part of the global economy". The panellists were:

- Mr R.S. Sodhi, CEO, Amul
- Mr Suhail Sameer, Group President, BharatPe
- Mr Ashwin Kumar Tewari, MD & CEO, SBI Card
- Mr Netrapal Singh, CEO, Aditya Birla Housing Finance Ltd.



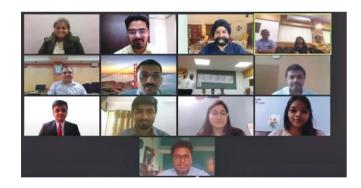




- Mr Sanjeev Sharma, Country MD, ABB India Ltd.
- Mr Keki Mistry, Vice Chairman & CEO, HDFC
- Mr Shailesh Pathak, CEO, L&T IDPL















(ii) Summer Project Contest

In the Summer Project Contest (SPC) lies the genesis of Prerana. The event provided second-year management students with a platform to showcase their summer projects and share their internship experiences. Their presentations were scrutinized and judged by an elite panel of judges from the Industry and faculty from NITIE. This year the event saw students from top management schools presenting their internship experiences and project details to students and elite industry panellists. SPC comprises four modules.

- 1. Operations/SCM
- 2. Marketing
- 3. Human Resources
- 4. IT/Analytics

More than 100 entries were received. The panellist details are as follows:

SN	Event	Panellist
1	SPC-Operations/ SCM	Mr. Sreekanth Vancheeswaran, VP & Head Supply Chain, GCPL Mr. Berghei, Shete, VR Supply Chain, Welmout Lodie
	SOM	Mr Pankaj Shete, VP Supply Chain, Walmart IndiaMr Sandeep Baxla, Vice President, Indofil Industries Limited
		Mr Sanjay Awasthi, Vice President, Valvoline Inc.
		Mr Anirudha Karnataki, Vice President, CEAT Limited
		Prof. Priyanka Verma, Associate Professor, NITIE
2	Marketing	 Mr Saurabh Bajaj, Marketing Head, Diary, Britannia Industries Limited Mr Anupam Dasgupta, VP, Strategy, Gray Matter Software Services Pvt Ltd
		Ms Piali Dasgupta, Senior VP, Marketing, Columbia Pacific Communities
3	Human Resources	Mr Debashish Ghosh, VP and Country HR Head, Berkadia Services India Pvt Ltd
		Mr. Anunay Shrivastava, Senior VP & Head, Aditya Birla Group
		Prof D.K. Srivastava, Professor, NITIE
4	IT/Analytics	 Mr Sandeep Jabbal, Vice President, IT, Jubilant FoodWorks Ltd. Mr Paritosh Anand, Senior Vice President, Jio
		Mr Denis D'Souza, VP of IT & Broadcast Technology, Reliance Broadcast Network Limited
		Prof. Debabrata Das, Assistant Professor, NITIE







(iii) Cita-De-La Prerana

Cita-De-La Prerana is an event where celebrities put forth a canvas on their colourful and successful life stories. Their stories never fail to kindle the hidden spark, filling students with high hopes and renewed energy. They connect the dots to enlighten students about their untold struggle & the mettle they have shown to conquer it. Cita-de-la Prerana has had a tradition of hosting amazing personalities such as Mr Rajat Kapoor, Mr Anurag Kashyap, Ms Gul Panag, Mr Piyush Mishra, Ms Divya Dutta, and the list goes on.







This year, we were blessed to have Padmashri Paresh Rawal. The diverse experiences shared by him certainly inspired the audience to follow their passion. Prof. Nikhil K Mehta moderated the proceedings.



(iv) International Business Conclave

Prerana International Business Conclave was launched this year under the umbrella of Avartan. The festival went international with this one-of-a-kind panel discussion. Global leaders from four time zones got together to present insights on the international business landscape on a single platform.



- Mr Aditya Betala, Senior Director, Visa, USA
- Mr Narayan Prasad, COO & Founder-Satsearch.co, Netherlands
- Mr Manish Singh, Head, Cloud Services-Tech Mahindra, UK

The theme for discussion was "Recovery of Global Industry Post-Covid and The Opportunities it Presents". The 1.5 hours event was highly engaging, and students understood the current business scenario not only in the country but internationally, which will be highly useful for B-school graduates. The first edition of this event was highly successful.



(v) Prerana General Quiz

Prerana general quiz had more than 600+ entries from both management and engineering students. First, the top 30 teams were selected for the national finals round. Then we had four rounds for the national finals.



(vi) NITIE Finance Conclave

STREET successfully organized the Annual Flagship event NITIE Finance Conclave as a part of NITIE's B school Festival Avartan on 2nd November 2020. The Conclave provided a platform, an unparalleled opportunity, for interaction between Academia and Leaders of Finance Industry and discussed over one of the most crucial topics. This year's panel discussion theme was "Road to Recovery - During and Post the Pandemic". We had the privilege of having the distinguished Guests from the industry:

Proicere (4th Nov'20, 1:30 PM – 5:00 PM)				
Dignitaries	Designation	Organization		
Mr Nitin Khanna	CFO	Inorbit Malls (India) Pvt. Ltd		
Mr Himanshu Mehra	Global Sales Manager	Expedia Group		
Ms Rajni Thakur	Economist	RBL Bank		
Ms Aastha Gudwani	Indian Economist	Bank of America Merrill Lynch		





(vii) Beat The Street

Beat the Street is a stock pitch event organized every year at Avartan 2020. The contest provided a great forum for B-school students to test their stock-picking skills, present the same to a distinguished panel of investors, and win attractive cash prizes along the way. Participants were taken through an eliminatory quiz that precedes the Valuation Round that challenged their financial appetite and grip over the markets. Shortlisted teams from this round were invited to present their analysis to a panel of esteemed industry veterans.

Beat The Street (3rd Nov'20, 12:00 PM – 1:00 PM)					
Dignitaries	Designation	Organization			
Mr Tarang Maheshwari	Director for investments	Standard Chartered Bank			
Prof. K S Ranjani	Assistant Professor	NITIE			



(viii) Proicere

In this event, participants were provided with a case/theme containing the project details, and they are expected to execute the project from scratch, i.e., planning, budget requirement, resource allocation, identifying the solution, execution to the manufacturing of the final product.

This event provided a platform to test the project management skills of the participants and gave them hands-on experience and a glimpse of executing a real-time industrial project. This event also helped the participants gain knowledge and new insights into the field of project management. The event was conducted in association with the Project Management Club of NITIE. This year more than 100 registered teams participated in the event. These participants were then screened through an online quiz and case submissions to 5 teams of 3 members each. The eminent panel comprised of the following jury members:



Proicere (4th Nov'20, 1:30 PM – 5:00 PM)					
Dignitaries	Designation	Organization			
Mr Anant Tewari	Project Director	Alstom Transport India Ltd.			
Prof. V.B. Khanapuri	Professor	NITIE			
Prof. Ruchita Gupta	Assistant Professor	NITIE			

(ix) Samvaad

Samvaad is the media conclave organized by the Media Relations Cell NITIE Mumbai. Under the aegis of Samvaad, the panel discussion on "Emerging Role of Media in Society in



the post COVID Era" was organised. The discussion was very engaging, and the insights shared in the discussion proved very beneficial for the students. The eminent panellists were as follows:

Samvaad (6th Nov'20, 9:00 AM – 11:30 AM)				
Dignitaries	Designation	Organization		
Mr Navaneeth L V	CEO	The Hindu Group Publishing		
Mr Anurag Batra	Chairman & editor-in-chief	BW Business World Media Group		
Mr Rajat Nigam	Group Chief Technology Officer	Network18		

(x) Vivaad



Vivaad'20, the long-awaited national level debating competition of NITIE, was successfully organized by the Personality Development Committee (PDC) on 3rd November 2020. It was an enthralling competition loaded with nuances of fun. The esteemed jury members who brought in years of pronounced experience from diverse fields on to the table were as follows:

Vivaad (18th Oct'19, 2:00 PM - 5:00 PM)				
Dignitaries	Designation	Organization		
Mr Hemanth Kulkarni	Executive Director	Rashtriya Chemical Fertilizer		
Prof. Nikhil Mehta	Associate Professor	NITIE		

(xi) Enpower



Enpower 3.0 5th Nov. 2020





EnPower was launched to understand the bottom of the pyramid of society and provide solutions for it. It was organized with much more enthusiasm, this time in Avartan 2020. The brightest upcoming business minds were invited to work on the problems in a tribal community in rural India. The case competition had three cases where the participants provided the business solutions for NGOs working on the Women Empowerment and Tribal Welfare sector. They proposed a new venture that would help us target a few of the 17 sustainable development goals. The top 8 entries were selected to present their work to



the illustrious jury members who picked out the winner after rigorous questioning. In the final round, shortlisted candidates presented their ideas to the esteemed jury members.

Enpower (5th Nov'20, 1:30 PM – 4:30 PM)				
Dignitaries	Designation	Organization		
Mr Aman Garg	Sourcing Manager, Contract Manufacturing	Mondelēz International		
Ms Smruti Das	Member of CSR	RPG Foundation		

C) E-Cell

(i) MyStory



MyStory provides a unique platform for entrepreneurs to showcase their achievements. The idea behind Mystory session was to build a framework where the inquisitive young brains interact with some of the gems from the entrepreneurial world. The event provides opportunities to meet successful entrepreneurs and learn from their experiences. The entrepreneurs tell about their journey, experiences, the things that were going through their minds while initiating the process, and the driving force that kept the entrepreneurial spark alive. The students get an opportunity to engross themselves in the fascinating &

inspiring journeys shared by the start-up pioneers. This year we had the following eminent speakers who shared their stories with us in an intriguing manner. The speakers for this year were as follows:

- Ms Deeksha Ahuja, Founder Encubay & Collaborat-her
- Mr Karan Jain, Co-founder Revv
- Mr Sandeep Aggarwal, Founder -ShopClues & Droom
- Mr Ajay PV, Founder Scapic
- Mr Dhruvam Thaker, Founder SMART Taxi

(ii) MSME Entrepreneurship Conclave



E-Cell NITIE, Mumbai successfully organized the MSME Conclave virtually in collaboration with the Centre for Global Competitiveness of MSMEs (CGCM) on 4th Nov 2020 as part of NITIE's annual mega event Avartan 2020.

The topic for this year's panel discussion was "India a Self-reliant Economy and Global Manufacturing Hub – Challenges and Opportunities". We were honoured to welcome the industry pioneers as our guests:

- Dr Milind Prahlad Kamble, (Padma Shri Awardee; Founder – DICCI)
- Mr Mukesh Mohan Gupta (Board Member
 National Board of MSME; Ex-Director
 Dena Bank)
- Mr Indrajit Ghosh (Chairman MSME Commerce of Commerce and Industry of India)



The event resulted in a very interesting and engaging discussion where panellists shared their insights and talked about implementation challenges and opportunities in India compared to other countries. The panel discussion was followed by a Q&A where students were more than eager to get more insights from the experts. We extend our gratitude to our panellists for their valuable time and insights.

7. PPO TALKS (From 07 January 2021- 04 March 2021) The Institute has started a series of online sessions on "How to successfully convert Summer Internship Project into Pre-Placement Offer (PPO)" with effect from 07 January 2021. PPO holders of senior batches shared their insights and experiences on Internship projects carried out by them in the previous year to make Junior Batches students' industry-ready for Summer internships. The Faculty Members guided these sessions as Mentors for the group of students. A total of 15 such groups of Mentors and Mentees were formed for the evaluation purpose. This new initiative of Cognitive learning was undertaken under Prof Manoj Tiwari, Director, and Prof(Ms) Hema Date, Dean, Student Affairs. These sessions were conducted every Thursday till 04 March 2021. At the end of the initiative, the mentees submitted a brief report on their learning. The programme nurtured students in understanding the business organizations, problems to be undertaken, business analysis, and designing workable methodology.



8. Rural Education
Transformation (10
January 2021) To
make a positive social
impact and support
NEP 2020, as a new



initiative by the Institute, a team of students from the Rural Transformation Committee has created



educational videos. In association with Prof(Ms) Upasna A Agarwal and Dr Madhav Sathe of the Bombay Mothers and Children welfare society, the

team visited 03 rural villages near Talegoan and shared the e-content with students and teachers.

The feedback of the student and teachers was encouraging. It was a great moment to see the smiles and awe in the children's eyes.

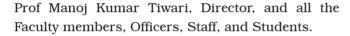


9. Lohari (13 January 2021) When students get successful in *cultural activities*, it boosts their self-esteem. This self-esteem helps them to face the outer world more confidently. Furthermore, they face their academic challenges in a much better way. Moreover, they get to know the cultural heritage of our country. Hence, the Institute encourage students to participate in various cultural activities. Like every year, Lohari/Makar Sankranti/Pongal was celebrated at the NITIE Playground on 13 January 2021. The holy puja of Lohari was performed by









10. RepublicDayCelebration(26Jan2021): The 72nd RepublicDay was celebrated on 26January2021 at NITIE



Campus. The RD celebration was started with Marathon at 06:30 AM at the Taylor Hall.

Prof Manoj Kumar Tiwari performed the flag hoisting ceremony, Director, NITIE, at 09:00 AM on the lawn facing Vihar Lake. On this occasion, mass singing of the National Anthem and march-past was performed by the NITIE Security personnel.

Shri Basavaraj Swamy, Registrar NITIE led the mass reading of the preamble of the constitution. The







students of the Institute presented patriotic songs. The re-launch of NITIE Journal "Udyog Pragati" was done by the Director on this occasion. The programme was well supported by the NITIE Faculty, Officers, Staff and their family members, PGP and Fellow students. The programme ended with prize distribution of the Marathon and distribution of sweets and snacks.

11. Masterclass (E-Cell NITIE)

The E Cell-NITIE had organized a talk series called Master Class on the broad theme of Startups, Innovations and Entrepreneurship. Masterclass 01 was conducted on 29 January 2021 on "How to Ideate, Plan & Fund your Start-up?". The speaker was Dr Dhruv Nath, Angel Investor, Director-Lead Angels Network, Start-Up Mentor. One of the major takeaways from the session was the PERSISTENT Framework, which was explained through a case of AHA Taxis, covering all salient points related





to Planning & Funding as a Start-up. Students highly appreciated the session as they found it very engaging, insightful and got their many doubts answered directly by Dhruv Sir. He explained the nitty-gritty of the start-up world and explained the world of funding in detail. The session explored a case analysis of 2 start-ups, their challenges and their road to success.

Masterclass 02

The Masterclass 02 was conducted on 10 February 2021 on the topic-FinTech's in India - Opportunities and Challenges. The Speaker was Mr Sunil Mishra, Head, Ecosystem Innovative Group-Infosys Finacle, Start-Up Mentor, IIM Lucknow. Mr Mishra explained how FinTech companies could reshape the financial services landscape to address a few of the critical structural issues afflicting Indian financial services- increasing outreach, improving customer experience, reducing operational friction, and fostering adoption usage of the digital channel. He also talked about technological drivers for FinTech innovations like Blockchain, Big Data, Analytics, artificial intelligence. Some of the major highlights included how FinTechs are reshaping the banking industry through digitization, technology,

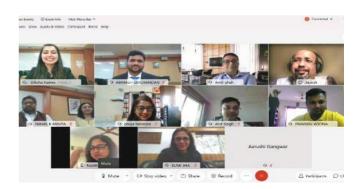


and innovation, how India has provided a robust foundation for the next level of FinTech growth and key sustainability factors for FinTechs. Finally, he touched upon how India's fintech segment has expanded by leaps and bounds, and how the data around this industry points to a strong growth potential going forward.

12. HR Conclave (13 February 2021) – The Institute organized the HR Conclave titled "Leadership skills needed to navigate the new normal" in unprecedented events. The programme focused on preparing students to understand leadership roles during the COVID-19 scenario. The following panellists enlightened the students:

- 1. Mr Rahul Biswari, Global Head HR Operations, Micro Focus as keynote Speaker
- 2. Mr Amit Shah, Chief Marketing Officer, Zycus
- 3. Mr Praveena Voona, HR Business partner, Airbus
- 4. Ms Pooja Banerjee, Head HR Operations, Google India
- 5. Ms Neetha Thomas, Head HR, Loginext
- 6. Mr Jayesh Pandey, Partner-front office transformation Business, PwC
- 7. Mr Anit Singh, HR Director, P & G

The event was organized under the leadership of Prof Manoj Tiwari, Director, along with Prof (Ms) Hema Date, Dean Student Affairs, Prof(Ms) Sumi Jha, Prof(Ms) Upasna A Agarwal and Prof Nikhil K Mehta.





13. Saraswati Puja (16 Feb 2021) Devi Saraswati,

the goddess of learning and knowledge, is worshipped on

worshipped on Basant Panchami. The day is significant for Vidhya Arambha or the ritual of



introducing young children to the world of books and learning. The Institute celebrated Saraswati Puja on 16 February 2021 on the occasion of Vasant Panchami. Prof Manoj Kumar Tiwari, Director, NITIE, and the Faculty Members and Students graced the divine occasion.

14. Shiv Jayanti (19 Feb 2021) The Institute celebrated Chhatrapati Shivaji Maharaj Jayanti on 19 February 2021 to commemorate the birth anniversary of the great Maratha emperor. This year's Shivjayanti marks





the 391st birth anniversary of the great Maratha warrior. The ceremony was inaugurated by Prof Manoj Tiwari, Director. Prof(Ms) Hema Date, Dean(Student Affairs), Prof Utpal Chattopadhyay, Chief Warden and other Faculty Members were also present. All the precautionary measures were taken as per the COVID-19 guidelines. Students were dressed up in ethnic outfits with turbans. Further stories of gallantry shown by Shivaji Maharaj were narrated. At last, traditional Marathi cuisine was enjoyed by the entire NITIE Fraternity.



15. Last Lecture (24 February 2021) NITIE

Prerana Management
Group hosted a
leadership Talk of Dr
Aravind Pangariya,
First Vice Chairman



of NITI Aayog, Former Chief Economist of Asian Development Bank(ADB) and currently a Professor of Economics at Columbia University in the city of New York, as "Last Lecture" for outgoing PGP Batches students on 24 February 2021. Dr Aravind Pangariya enlightened the students by sharing his thoughts on the theme of the session "India: Onwards and Beyond". It held an optimistic view of the ongoing economic transformation with India at its centre. Dr Pangariya also shared his inspiring life experiences & his word of wisdom "Humility is often mistakenly taken for weakness while arrogance is mistakenly taken for confidence", will be life lessons for the students who will be starting their corporate journey.



The event was conducted under Prof Manoj Tiwari, Director, NITIE and Prof Hema Date, Dean, Student Affairs. Prof Utpal Chattopadhyay and Prof Ranjani KS moderated the event.

16. Post Budget Analysis (26 Feb 2021) Like every year, Team Street has scheduled a "Post Budget Analysis" on 26 February 2021. Following Industry experts were the Panel Members:





Ms Nasrin Sultana, Assistant Editor, HT Mint – Keynote Speaker

Mr Rakesh Singhania, CFO, Wells Fargo India

Mr Vikas Jain, CFO, ADAMA India Pvt Ltd.

Mr Rajeev Mantri, CFO, TransUnion CIBIL Ltd.

Ms Dipti Abhyankar, Economist, KEC Inc. Ltd.

Prof Utpal Chattopadhyay, Professor, Economics, NITIE – Moderator

The panellists shared valuable insights on the budget allotment and interesting concepts like fiscal activism and the Kinchen sinking. The further discussion spanned Bad Banks, ULIPs and agricultural reforms, which were supported by interesting examples for better understanding of students.

The event was conducted under the leadership of Prof Manoj Tiwari, Director and Prof Hema Date, Dean, Student Affairs. Also, Prof Utpal Chattopadhyay kept the session more interactive through his moderation skill and subject knowledge.

17. B-Cube(28 February 2021) Admissions Committee- NITIE organized Budding Business



Brain online this year to help aspirants prepare for their dream school. A total of 300 aspiring

students participated in a daylong event. The daylong program comprised of 7 events, namely :

- (i) **Welcome address** by Prof Hema Date, Prof Padmanav Acharya & Prof Sumi Jha.
- three important aspects, namely Life in MBA, Career Prospects after MBA, Life and career at



NITIE in OPS, SCM & beyond taken up by Mr Aarish Nissar, Naspers Group, Mr Rohit Singh, Senior Category Manager at GSK & Mr Aditya Iyer, Area Sales and Operations, TATAky respectively.

- (iii) **Campus Tour**. A film made covering the entire Campus area was shown to the participants.
- (iv) Communication
 Tips & Mock GD
 Prof. Nikhil Mehta
 shared insights
 on effective
 communication



and conducted Mock-GD Sessions for the participants. In addition, **GD** Practice GD's were conducted for all the aspirants who intend to participate. A 30 minute **Q&A session** was conducted to clarify all the admission related queries of the aspirants. **PI** was conducted on the top performers based on GD and **Quizathon**.

18. Samiksha- Panel
Discussion (03 March
2021) SamikshaIndustry interaction
team organized its
flagship event Corporate



Panel Discussion on "Challenges and Opportunities in managing Cold Supply Chan in the Present era" on 03 March 2021. The event was graced by Prof Manoj Kumar Tiwari, Director NITIE. Following industry leaders participated in the panel discussion:



- 1. Mr Shailesh Acharya, Chief Business Officer, Coldrush Logistics
- 2. Mr Charles Devlin D'Costa, National Head, Gati Ltd.
- 3. Mr Shankar R, Head-Safety, Sustainability & Business Excellence, Sterling & Wilson
- 4. Ms Preeti Saluja, Head- Pharma Transport Solution, B Medical System
- 5. Mr Ravi Kumar, Head- warehousing and Distribution, J & J
- 6. Prof Ashok K Pundir, Professor, Operations area, Moderator for the event

19. Marksfete (12 March 2021) Marketing Interest Group, MIG at NITIE, organized its corporate Panel discussion on "Artificial Intelligence"



and Machine Learning in Marketing". Prof Manoj Tiwari, Director, NITIE, delivered the inaugural address and highlighted the growing importance of data sciences and its application in the field of Marketing. Esteemed panellists were:-

- 1. Mr Dipayan Chakraborty, Head Analytics and Business Intelligence at Myntra
- 2. Mr Karthik Venkat, Tech Leader, Google Ads and GMP at Google
- 3. Mr Rajagopalan C, Head of Marketing and Strategy at Inbound Mantra
- 4. Mr Ramit Goyal, Asso. Director & Product Lead, Makemytrip
- 5. Prof Neeraj Pandey, Associate Professor, NITIE, Marketing Management

The event was moderated by Prof Neeraj Pandey, who directed the discussion towards an enriching conclusion.



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 and thus provides solutions to the problems currently faced by the company/industry. The competition was open to all B-school students and consisted of 2 Rounds.

Market Rook: Annual marketing magazine: This year, Market Rook took up the latest marketing and

sales function trends. The E-magazine was distributed across 100+ B-schools, and articles



were collected through a pan India article writing competition.

<u>Maddiction</u>: The marketing quiz was a perfect blend of fun, entertainment, and brainstorming that tests the participants' intellectual capability and marketing quotient and keeps them glued till the end.

20. ARTHNITI (18 March 2021) In light of the recent changes in farm laws and budget announcements, ARTHNITI, the Public Policy Forum of the Institute, has organized a panel discussion on "Farm Reforms: How Banking sector can help". The panellists were:

- 1. Mr Arindom Datta, Executive Director, Rabobank
- 2. Mr Prabhat Chaturvedi, CEO at Netafin Agri Financing Agency





- 3. Mr Sameer Narang, Chief Economist and Head Strategic Planning, Bank of Baroda
- 4. Prof Vijaya Gupta, Professor of Economics, NITIE

The event was graced by Prof Manoj Tiwari, Director, NITIE and Prof Hema Date, Dean(SA) with their presence.

PARIVARTAN

"Parivartan" is a proud initiative of NITIE Mumbai towards the National Education Policy 2020 initiated by the Government of India. The institute has supported government efforts to transform rural education and create digitally enabled classrooms through this initiative. The objectives of the project initiated are as follows:

- To contribute to building an 'Atmanirbhar Bharat' by implementing 'Technology Enabled Holistic Learning in Rural School'
- To contribute to the implementation of 'NEP 2020' through various activities and initiative.
- To collaborate with NGO's, BMC schools and local bodies to improve the education quality
- To promote community engagement to support holistic education.

Parivartan has collaborated with The Bombay Mothers and Children Welfare Society, an NGO working for the rural and tribal villages nearby Pune. In association with Prof. Upasna A Agarwal and Dr Madhav Sathe (Chairman of The Bombay Mothers & Children welfare society), the team visited three

rural village schools near Talegaon on 10th Jan 2021 and shared the e-content with students and teachers.

Team Parivartan made 16 self-learning videos building scientific acumen, fostering awareness and human values and personality development. To contribute its bit in the enhancement of technology-enabled holistic learning in rural schools.





PHYSICAL FACILITIES AND INFRASTRUCTURE

- i. Library
- ii. Digital Informatics Centre (DISC)
- iii. Estate / Infrastructure Creation and Maintenance
- iv. NITIE Dispensary
- v. Security and Transport



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LIBRARY

1. About:

The National Institute of Industrial Engineering (NITIE) Library has been a learning and knowledge resource centre for the academic community of NITIE since 1965. NITIE library has an area of 1433.39 sq. m and is centrally air-conditioned with proper lights, adequate seating capacity, secured Wi-fi connection and other fundamental amenities.

The objective of the NITIE library is to facilitate the creation of new knowledge through the acquisition, organization, and dissemination of knowledge resources and by providing value-added services. As of 31.03.202, the total collection of the library was around 82789 books. This collection included technical books, reference books, bound volumes of journals, light reading books (in Hindi, English & Marathi language) and Complimentary Books.

The library collection as of 31^{st} March 2021 was as under:

Collection	Nos.
Technical Books	57408
Light Reading Books	P8041
Hindi Books	H2984
Marathi Books	M916
Complimentary +Free Books	C1485
Technical Journals	43 (4 Online; 12
	Print + Online; 27 Print)
Semi-Technical, Light	45
Reading Journals &	
Magazines	
Bound Volumes	J11955
Total	82490

2. Approved Budget for 2020-21:

The total budget for the NITIE Library during the year 2020-2021 was as under:

Plan Budget - Rs. 560 Lakh

Non-Plan Budget - Rs. 385 Lakh

Total Budget - Rs. 945 Lakh

3. Subscriptions:

NITIE library also subscribed 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
 - 1.5 People of India DX
 - 1.6 Aspirational India DX
 - 1.7 Income Pyramids DX
 - 1.8 Consumption Pyramids DX
- 2. CEIC Database
- 3. COURSERA: Online Certification (Launched on 07.12.2020)
- 4. EBSCO: Business Source Complete
- 5. EBSCO Discovery Services
- 6. Emerald Management Extra 310
- 7. Emerald Cases
- 8. EPWRF Time Series
- 9. Euromonitor Database (up to September 2020)
- 10. E-view Software
- 11. Gartner Database
- 12. Grammarly Software: Writing Tool
- 13. HBS Cases
- 14. IEEE ASPP/POP
- 15. IMD World Competitiveness Database
- 16. Indiastat.com Database
- 17. INFORMS Collections
- 18. Proquest ABI/INFO



- 19. RemoteXs Facility–for accessing the subscribed databases outside the campus through secured login credentials
- 20. SAGE Management & Organization Studies Subject Collection
- 21. Science Direct
 - 21.1 Business Management & Accounting
 - 21.2 Decision Science
 - 21.3 Environment Science
 - 21.4 Engineering
 - 21.5 Economics, Econometrics & Finance
- 22. SCOPUS Database
- 23. Taylor & Francis 3 Subject Collections
 - 23.1 Science & Technology
 - 23.2 Business Management & Economics
 - 23.3 Planning & Urban Environment
- 24. Turn-it-in: Anti Plagiarism Software
- 25. Wiley Customized Collection

NITIE Library, as one of the members of "eShodhSindhu Consortium for Higher Education Electronic Resources," an initiative of INFLIBNET, Ahmedabad under Centrally Funded Technical Institutes (CFTI) category, through e-ShodhSindhu, seeks benefits of 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 $24\,x\,7$ access to all online resources, including the Library catalogue, i.e. "OPAC" (Online Public Access Catalogue) within the campus.

Library Management Software and Security System:

The NITIE Library used "LIBSYS.10 – Web-centric Version" as library management software. In addition, for library security, the entire collection was made Barcode enabled with the 3M security system.

Library Services:

The major services provided by the NITIE Library were as follows:

- 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 (Hard copy & E Text Books) procurement & distribution to PGP students
- 9. Remote Access Facility
- 10. User Awareness Programs The Library takes active participation in the institute's Orientation program to benefit new students at the beginning of the academic year. Also, it regularly organizes webinars, Training sessions of various Library databases and services.
- 11. Prepares and distributes "Institute cum Library ID-Cards" to Students.

Library Interns:

Initially, three library interns were appointed for the smooth functioning of the library. Two library interns left the institute in mid-October 2019. The contract of the third intern ended in September



2020. The process of hiring new library interns is in progress.

4. Digital Library:

14 PCs were installed for use of library users.

5. Library Committee Meetings:

A new Library Committee was constituted vide order no. D/Office Order/2020, dated 20.05.2021. The tenure of this committee is valid till 30.04.2021. During the year, five library committee meetings were organized, including two special meetings, to decide library development, books procurement, subscription renewal of existing E-resources.

6. Library Team:

The library is managed by a team of:

- 4 professionals,
- 1 Semi-Professional,
- 3 Administrative staff and
- 1 MTS.

Out of 4 professionals, LIO retired on 30.11.2020 and "Controller of the Examination (COE)" was given an additional charge of the NITIE Library as LIO(I/c). The team handled important library activities like Collection Development, Collection Maintenance, Circulation, Reference, and other information services.

COVID - 19 Lockdown & Library Services:

During the COVID -19 lockdown, the NITIE Library was also closed for physical access. However, with the support of the minimum library staff, online library services were kept on through the Remote Access Facility, and efforts were made to ensure the maximum utilization of available e-resources.

7. Library Timing:

The library ran as per the below schedule:

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



DIGITAL INFORMATICS CENTRE (DISC)

During the year, Digital Informatics Centre (DISC) provided:

- the state of art computer hardware and software facilities to meet the varied requirement of teaching training research, consultancy, and developments.
- maintenance of the:
 - o networking system to support internet web surfing and E-mail services.
 - o More than 400 personal computers with a wide range of processors, hard disks, monitors, keyboards, mouse, and printers were maintained.

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

MoUs

 The Institute signed an agreement with Microsoft for their Microsoft Campus 3 subscription enrolment. As a result, all users at the Institute shall use licensed Microsoft products.

Provisions for Faculty Members and Officers

DISC initiated the supply of various provisions to all faculty members and Officers:

- 4GB/8GB Pen Drives
- USB based external portable HDD of S00GB/1TB.
- 65 Laptops
- Printers-LaserJet Printers and multifunction Printers
- Wi-Fi connection has been provided in all the Hostels, Academic cum Library Building (ALB)

to enable students to have the internet facility in their rooms and around the Hostel.

Supporting Institutional Activities

- The online classes, webinars and events were conducted on cloud-based video conferencing solutions like Webex, Zoom and Microsoft Teams platform.
- The DISC facilitates the uploading of various information on the NITIE website and admission to the various Programmes through 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.
- One thousand two hundred fifty licenses of CISCO WebEx and subscription-based license of Zoom.
- CISCO/HP Switches improved the existing networking infrastructure and provided optimal internet services usage to various users.
- DISC procured the latest versions of the following software: SPSS 26.0, AMOS 26.0, MATLAB, Bloomberg, ANYLOGIC, CPLEX – Academic version, Relecura, TYPESET
- Various utility software was procured for academic and official use: Seqrite Antivirus, Adobe creative suite, Adobe DC Pro. All the software were compatible with Windows and Redhat Linux 5 operating system.
- Alignment for the Microsoft University Alliance Programme and SAP University Alliance Programme.



ESTATE / INFRASTRUCTURE CREATION AND MAINTENANCE

The Estate Section carries out the maintenance and repairs to the office and residential buildings of the campus. The Institute is in need for additional capacity for accommodation of students, faculty, and renovation of its existing management development building (Pragati Vihar). Besides the Institute is also in need of strengthening the campus security with a compound wall. Therefore, 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 October 2019 for its proposal regarding the requirement of funds for capital works through a loan from HEFA for the following projects:

S1.	Project	Cost
No.		(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	1.50
	Bungalow	
5.	Construction of Type V-B/Type	45.00
	VI-A Quarters	
6.	Multipurpose Hall & Students	14.50
	Activity Centre	
	Total	95.50

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

1. WORKS IN PROGRESS

Name of Work

 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.

- AMC for 04 nos. Lifts at Taylor Hall.
- AMC for air conditioners and water coolers.
- AMC for 12 nos. Air Circuit Breakers.
- AMC for 16 nos. 60/80 water coolers and 01 no. AGCCP Aquaguard water purifier.
- Non-comprehensive AMC for the hydropneumatic system at the main reservoir, Taylor Hall and ALB.
- Annual operation contract for HVAC plant (high & low side) at ALB.
- Non-comprehensive operation of central HVAC plant at ALB.
- Comprehensive AMC including spares parts & labour with oil & refrigerant of HVAC plant at ALB.
- Annual operation of OWC
- Annual maintenance & service contract for 750 kVA D.G. Set.
- Supply of casual labourers for various activities in the NITIE campus.
- Annual maintenance and service contract for lifts at ALB
- Annual maintenance and service contract for window and split air conditioners and water coolers.
- Annual maintenance contract for 28 nos. AG-200 UV Aqua Guard water purifiers
- Replacement of damaged rainwater pipes Type-II (1-16), Type-IV(8-15), Type-V(17-22), syndicate
- Painting to classrooms at ALB bldg.
- Construction of UCR wall with chain link fencing along the roadside at CTS No. 67B (newly fenced land)



- Internal/external painting to campus buildings of NITIE
- Polishing work at old Director's office, cabins above Director's office, and replacing doors of cabins above old Director's office and classroom no. 11,12,12A, security office at the new gate and flat no. 27 of Sindhu building
- Wiring for a computer lab in the classroom no.
 407 at ALB
- Replacing RCC chajjas with FRP chajja at Type-IV (16-23) building
- An annual maintenance contract (comprehensive) for Dorma make an automatic door at ALB
- Replacement of main doors of 168 rooms and repairs to door frames at Gilbreth Hall
- A/A to the sitting room of suite no. 12 for creation of temporary kitchen
- Internal painting to first and 2nd-floor rooms at Gilbreth Hall
- Repairs to toilets of flat no. 21 of Type-V (17-22) Narmada building
- Patch plaster repairing at flat no. 10A Transit, Type-II/13, PGPM 8, 15 & 16, server room at VSH and internal painting of flat no. 10A Transit building
- Replacing flooring of the kitchen at Type-V/22
- Providing pedestals for water coolers at Gilbreth Hall
- Fogging treatment around campus buildings
- AMC for lifts at PGP hostel, Guest House, MDP Hostel, OCA building, Gilbreth Hall, Academic and administrative building
- Repairs and renovation of dispensary
- Supply and installation of partitions and glass door shutters at the library
- Internal and external painting and patch plaster repairing of Godavari building

- External painting to Brahmaputra, Kshipra, Saryu building, Transport Section and external and internal painting of pump house.
- External painting & patch plastering of Narmada building.
- Providing partition wall in front of toilets and plinth protection at Saryu building
- (Watchman Quarters)
- Repairs to AMCE lab (Digital Manufacturing Lab)
- Internal painting to library smart classroom and fellow classrooms at first floor repairs to gypsum-based false ceiling and modular false ceiling and installation of sun control film on the external glass.
- Replacement of the main door, repairs to door frame, wire mesh shutters window boxing, internal painting etc. at Vikram Sarabhai Hall for VLFM participants.
- Supply and installation of 50 watt LED streetlight fittings.
- Providing and fixing aluminum louvered window and S.S. wire mesh fixed
- window to toilets at Gilbreth Hall room.
- Internal painting to rooms at Gilbreth Hall excluding (1^{st} & 2^{nd} floor rooms) and
- including Health Centre at ground floor.
- Supply and installation of passenger elevators of Gilbreth Hall and Industrial
- Research building at NITIE Mumbai.
- Providing automatic pillar taps at common toilets of office buildings as safety measure to prevent spread of "COVID 19"
- Providing safety grill at basement & ground floor at Anand Vihar
- Supply and installation of hot dipped galvanized poles and armoured cable for street lighting



- Annual maintenance and servicing contract for 01 no. On-Line UPS
- Providing aluminum openable folding doors to ground floor balconies with aluminum safety grills at Anand vihar
- Creation of cloth washing & cloth drying facility at ground floor level at Anand
- Vihar
- External painting to Yamuna, Ravi & Indrāvati Bldg.
- Internal & external painting, external plumbing and patch plaster at Ganga Bldg.
- Repairs of toilets at flat no 20 at Narmada Bldg.
- Repairs to cupboards to rooms at Gilbreth hall
- Providing shower partition at suite no- 1,3 & 4 at Anand Vihar
- P/F waterproof tarpaulin sheet temporary sheds for 1 monsoon period on terraces of placement cell, old library & syndicate balconies
- Replacing damaged window of flat no. 18
 Narmada building
- Replacing damaged doors of flat no. 07 and electric godown at Kaveri, flat no. 11 & 13 Godavari, flat no. 10A of Tapti, flat no. 11 at Yamuna building and replacing and providing kitchen platform shutters at flat no. 3,6,7 at Kaveri building, flat no. 9 at Tapti building and flat no. 11,12,13 at Godavari building
- Internal painting to 1st and 2nd floor rooms at Gilbreth Hall
- P/F waterproof tarpaulin sheet temporary sheds for 1 monsoon period on terraces of kitchen of Vikram Sarabhai Hall & for vegetable vending area
- External painting to right side front wall of OCA Bldg, and internal patch repairs
- External painting & patch plastering of Sindhu Bldg.

- External painting & external plumbing & patch plaster repairing of Jhelum Bldg.
- Supply and installation of covers & other plumbing works as per requirement of MCGM at various campus Bldg.
- Replacing shutters & shelves of inbuilt storages in front of Chairman's suite & at other floor passages
- Removing partitions in front of lift entrance, cabin of computer center (DISC), Providing partitions for creating cabin for system designer, providing false ceiling for cabins at DISC
- Replacing damaged treads & risers, replacing lobby flooring of 1st & 2nd floor of Industrial Research Center (OCA) Bldg.
- Patch painting repairs at Chairman's suite, passage & staircase and entrance area of Anand Vihar Guest house
- Replacing floorings of bed rooms of flat no 20 at Ganga Bldg.
- Replacing damaged doors at 1st floor (ladies washroom), 2nd floor (gents
- · washroom) main building
- Renovation of toilets at ground floor & second floor & creation of ladies toilets at ground floor & second floor of OCA Bldg.
- Providing roof for washing area at Anand Vihar Guest house
- Replacement of flooring to rooms at Gilbreth Hall
- Replacement of G.I. pipeline for flushing, potable and hot water at Gilbreth Hall.
- External painting to Kaveri and Tapti building
- Renovation of toilets at Gilbreth Hall
- Repairs of toilets at flat no. 20 Ganga building
- Fixing glazing in aluminium and M.S. panel including glass with EPDM rubber
- neoprene gasket for Taylor Hall NITIE



- Providing curtains at entrance of Anand Vihar (Guest House)
- Supply and installation of split air conditioners
- Repairs to parking shed
- Supply of 150 mm flange type foot valve
- Purchase of plumbing material
- Structural audit of distressed columns of Ravi,
 Narmada and Sindhu building
- Renovation of toilets of 12 rooms of Vikram Sarabhai Hall
- Plumbing and allied works related to installation of surface hydro-pneumatic
- system at Taylor Hall
- Replacement of damaged vertical and roller blinds at Director's office
- Repairs to lab on the right wing of computer center
- Supply and installation of Grundfos make CRE 10-6 surface hydro-pneumatic system at Taylor Hall

2. WORKS COMPLETED

Name of Work

- 1. A/A of ground floor and basement of Anand Vihar to convert into Director's residence
- 2. Patch repairs to campus road
- Providing curtains with curtain rods at proposed Director's residence at Anand Vihar Guest House

- 4. Repairs and renovation of staff canteen
- 5. A/A of ground floor and basement of Anand Vihar to convert into Director's residence
- 6. Providing wardrobes at proposed Director's residence at Anand Vihar
- 7. Providing kitchen cabinets basement kitchen at Anand Vihar
- 8. Anti-termite treatment to Anand Vihar Guest House.
- 9. Supply and installation of Aquaguard AG-200 commercial water purifier
- $\begin{tabular}{ll} 10. & Purchase of material for electrical maintenance \\ & work \end{tabular}$
- 11. Purchase of 1100 litres metal waste handling bins
- 12. Purchase of ventilating fans, LED panel lights and LED spot lights for washrooms at Taylor Hall
- 13. Supply of refills for DCP 6 kg and CO2 fire extinguishers
- 14. Hiring of Machineries for levelling work of CTS No. 67/B
- 15. External painting to road side wall, kerb stones and backside wall of Anand Vihar
- 16. Replacing damaged vertical blinds at Dean's cabin ground floor Admn. building
- 17. Replacing curtains at 1^{st} and 2^{nd} floor suite of Anand Vihar (Guest House)



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 Dr Smruti Patel.

The Dispensary has been recently renovated, is well illuminated, and is organized with new equipment in the year 2020 with preparedness for the COVID- 19 pandemic.













The dispensary can manage emergencies at any time in 24 hours with Doctors, Staff Nurse, Paramedics and Compounder.

OPD WORKING HOURS:-

- Monday to Friday 9:00 AM 9:00 PM
- Saturday 8: 00 AM 2:00 PM
- Sunday On-call duty

VISITING DOCTORS: -

- Visiting consultants
 - o Physician
 - o Gynaecologist
 - o Paediatrician
 - o Orthopaedics
 - o Dentist, Homeopath and Physiotherapist
 - o Counsellor

FACILITIES: -

- Equipped with Dressing room and Emergency room
 - o (ECG, Nebulizers, Oxygen saturation, Glucose monitoring, Defibrillator, Philips patients monitoring system, Oxygen Concentrator and Oxygen cylinders)
 - o Nursing Station Two Nurses
 - o Pharmacy Room Pharmacist/ Compounder



SECURITY & TRANSPORT

Situated amidst the lap of mother nature, 63 acres of NITIE land is surrounded by thick forest, lakes, and wild life. Since the part of Vihar Lake area bordering on NITIE campus comes under Sanjay Gandhi National Park, the wild animals and reptiles are frequently found to be moving around the campus. Also, in view of increasing encroachment in and around the campus, Security personnel keep the strict vigil and carry out 24 X7 patrolling. To support the security system in and around campus, the CCTV network has been provided at most of the vulnerable places. The security in NITIE is looked after by the personnel of Maharshtra State Security Coroproation personnel.





To enhance security in the campus, Institute has entrusted the work of compound wall construction to CPWD, and the work is in progress.

The Suprintendent Security also looks after the duties of transport section. The Institute owns one official vehicle. Two cars and two buses engaged on contract from private agencies for student facilities and administrative support. The Suprintendent reports to the Deputy Registrar (Administration) and functions over all under the control of the Registrar of the Institute.

The year saw the COVID-19 pandemic that brought the crisis situation. Security personnel at NITIE worked relentlessly during this tough times. To motivate these relentless COVID-19 warriors, Prof. Manoj Kumar Tiwari, Director, NITIE and Shri Basavaraj Swamy, Registrar NITIE awarded them with the appreciation certificate.

Security personnel performed the Parade and giving guard of honour to the National flag during Indendence day and Republic Day celebrated at the Institute.





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. An implementation of the Right to Information Act 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 the democratic process, thereby making our democracy work for the people in a real sense. An informed citizen is better equipped to keep necessary vigil on the governance instruments

and make the government more accountable to the governed. The Act is a big step towards making the citizens informed about the activities of the Government.

Registrar, NITIE is the Appellate Authority, and Shri SMV Ramagiri, Systems Designer & Officer Incharge (Network Administration), has been designated as the Nodal 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 Central / Public Information Officers.

A total of 270 RTI applications were received, and the amount collected was Rs.400/-, for the year 2020-2021.

Sr. No.	Guarter	Opening balance of Requests (as on start of Quarter)	No.of Requests Received during Quarter	Total no. of Requests (Column 4+5)	No.of Requests transferred to other PAs	Decisions where Applications for Information rejected	Number of cases where disciplinary action was taken against any officer in respect of the administration of RTI Act	Total Amount Collected (fee+addl. charges+ penalty) (Rs.)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	1	74	0	74	0	0	0	180
	2	92	0	92	0	0	0	120
	3	104	0	104	0	0	0	80
	4	0	0	0	0	0	0	20
Total		74	0	270	0	0	0	400



NITIE ALUMNI ASSOCIATION



Annual Report 2020-2021





NITIE ALUMNI ASSOCIATION (NAA)

A. Annual General Body Meeting:

NITIE Alumni Association organized the 36th Annual General Body Meeting on $21^{\rm st}$ November 2020, at NITIE, Mumbai (Online). The members discussed the activities carried out by NAA and shared their views on the same. Annual Statement of Account for the year 2019-2020 was passed by the members.

Following is the list of Executive Committee Members for the year 2020-2021

President : Prof. Manoj Kumar Tiwari,

Director, NITIE

Vice-President : Prof. Shirish Sangle - Dean

Alumni Affairs

Chairman : Sanjay Shukla

Hon. Secretary : Prof. Sumi Jha

Hon. Treasurer: Prof. K.S. Ranjani

Vice-Chairman : Mr Mukesh Kripali

Member : Mr, Bijith Bhaskar

Member : Mr Murugan Pugalenthi

Advisory Member: Mr Rakesh Kumar Sinha

Advisory Member: Mr BP Rao

The Annual General Body Meeting was attended by 110 members of NAA, NITIE Faculty members and student's representatives. Four hundred members attended Sansmaran.

B. Alumni Activities:

1. Alumni Felicitation:

DAA Awardees at Sansmaran 2020 are:

Mr Ankur Bhagat, Associate Director - Country Supply Chain Head, Procter & Gamble India

Mr Arvind Thakur, member, Board of Management, NIIT University

Prof. P. K. Kannan, Dean's Chair in Marketing Science, University of Maryland - Robert H. Smith School of Business

Mr Surendra Babu, Indian Police Service

Mr Ashok Sathe, Vice President, Capgemini Financial Services

Mr Chandra Vaddadi, Senior Vice President Purchases - Greater China & Global Market Operations, Procter & Gamble

Mr Sanjay Kumar Shukla, Principal Secretary, Industrial Policy & Investment Promotion at Govt of Madhya Pradesh















Mr Saurabh Tripathi, IG of Police, Government of India

Mr Hemant Badri, Vice President of Worldwide Planning, Customer Service & Europe Operational Planning, Unilever

PYA Awardees at Sansmaran 2020 are:

Mr Ashish Bansal, Associate Director- India Procurement, Colgate-Palmolive India(Ltd)

Ms Nandini Jayaram, Director, Learning & Education, Google

Ms Neha Parekh, Head Of Logistics and Customer Service at Godrej Consumer Products Limited

Ms Richa Agarwal, Director- India eCommerce, eB2B and Hyperlocal at Procter & Gamble

Mr Sandeep Nailwal, Co-founder & Chief Operations Officer at Matic Network

Mr Siddharth Bhagat, Category Leader - Shoes, Watches, Luggage, and Jewelry at Amazon

Mr Sudhir Kolukula, Global Head of Responsible Procurement at A.P. Moller - Maersk





Over the years, SANSMARAN has always applauded the achievements of alumni. We feel proud to felicitate them with the following awards

40 Years Completion -

PGDIE – 8th Batch (1978-80)

Silver Jubilee Batch -

 PGDIE – 24th Batch (1994 – 96) & PGDIM – second (1996-98)

Decennial Batches:

- PGDIE 38th Batch (2008-10)
- PGDIM 15th Batch (2008-10)
- PGDISEM 8th Batch (2008-10)
- PGDITM 3rd Batch (2008-10)
- Fellow (Completion Year 2010)
- MDP (Completion Year 2010)

NITIE Alumni Association also congratulates our seven scholarship winners from the first year batch under Madala Scholarship, Prathipati Scholarship, Rangan Scholarship, and Singhal Scholarship.

Madala Scholarship:

- Mr. Shubam Pathak PGDIE-50
- 2. Mr. Atharav Singh PGDIM- 27

Prathipti Scholarship:

- 1. Mr Geo George PGDIMM- 07
- 2. Mr Ayush Singh PGDIE-50

Rangan Scholarship:

- 1. Kajal Chandrakar PGDIE-50
- 2. Ms. Diksha Gupta PGDIE-50

Singhal Scholarship:

- 1. Mr Vishal Kumar Singh PGDIM- 27
- 2. Involving Alumni in Institute administration as members of the Board of Governors and Academic Council of NITIE.





- 3. NAA organizes periodical guest lectures (Online), so alumni can interact with students to develop their knowledge base.
- 4. The institute involved various alumni in the PGDIE/IM/ISEM/MM/PM Course admission process. This involvement was initiated to get industry perspective at the time of student's admission. In addition, NAA organized alumnistudent interaction through our engagement initiatives like Abhisanskaran, Tarang, Preplacement guidance sessions, amongst various others.
- 5. The New Charter was presented.
- 6. Two Month Industry Course by Prof. David Simchi Levi for young alumni.
- 7. Prof. Manoj Kumar Tiwari, Director & President NAA, released "AlumNiti" the alumni magazine on 22nd November 2020 at the Annual Meet "Sansmaran" 2020 (Online)

Executive Committee Meeting:

NITIE Alumni Association organized Executive Committee Meetings No. $61^{\rm st}$ on $21^{\rm st}$ October, at NITIE and $9^{\rm th}$ February 2021 ECM No. $62^{\rm nd}$ via Zoom Platform.

INSTITUTE EVENTS

- a) Joining of New Chairman, Society & Board of Governors, NITIE
- b) HINDI Implementation
- c) Vigilance Awareness Week
- d) NITIE Welfare Activities & Events



Annual Report 2020-2021





JOINING OF NEW CHAIRMAN, SOCIETY/BOARD OF GOVERNORS - NITIE

Shri. Shashi Kiran Shetty joined as Chairman of the Society & Board of Governors, NITIE

Shri Shashi Kiran Shetty, Chairman of Allcargo Logistics, ECU Worldwide and Gati Limited, is nominated as the Chairman of the Society and the Board of Governors of National Institute of Industrial Engineering (NITIE) by the Ministry of Education, Government of India w.e.f. 7th November 2020, in terms of Rule 2 (1) and 5 (1) of NITIE Memorandum of Association and Rules, for four years or until further orders, whichever is earlier.





HINDI IMPLEMENTATION

OFFICIAL LANGUAGE ACTIVITIES:

1. RAJBHASHA KEERTI AWARD TO NITIE

The Ministry of Home Affairs, Government of India, has selected NITIE for the 3rd prize of "Rajbhasha Keerti Award" for the excellent implementation of Official Language Hindi in the "B" region from 2019-20. Hon'ble President of India will give the Institute this prestigious award in a special programme in September 2021.

The Official Language Department, Ministry of Home Affairs, Govt. of India invites entries for Rajbhasha Awards in Central Govt. Offices / Institutions / Undertakings etc., throughout India, send their Hindi Implementation Reports and out of which it is a matter of pride & pleasure that NITIE has been chosen for this prestigious award. It is worth noticing that earlier NITIE had been honoured Six times with the "Official Language Award" for the year 2005-06, 2007-08, 2013-14, 2014-15, 2017-18 and 2018-19 for the excellent implementation of Official Language Hindi in the Institute.

2. HINDI FORTNIGHT CELEBRATIONS - 2020

NITIE celebrated Hindi Fortnight from 1st September to 15th September 2020. Essay writing, Memory Power, Cross Word Puzzle, Questionnaire (About office), Noting Writing, Hindi Stenography, Hindi Typing, Photo Story Writing, Self-written Poetry, Legible Handwriting, Dictation Competition etc. were organised on this occasion for Faculty Members, Officers, Staff and Student in which so many participants won prizes.

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 Official Language Hindi in the Institute and congratulated all the winners. Md. Aftab Alam, Hindi Officer, conducted the programme successfully and proposed a vote of thanks.



Participants of Essay writing Competition



Participants of Self poetry writing Competition

3. HINDI WORKSHOP:

A one day Hindi Workshop was organised in NITIE on 10th February 2021. Thirteen Officers / Employees of the Institute participated in it. The eminent personalities working for the progress of Hindi delivered lectures on various subjects,' i.e. Correct use of Grammar & Spelling in Hindi, Digital India and Propagation of Hindi, Official Correspondence and Practice, Implementation of Official Language Policy and Annual Programme.

Dr Utpal Debnath, Mrs Shobhana Suresh, Shri B.T. Havelikar, Shri Ramotar Kumawat, Shri J.B. Desai, Shri L.K. Thopate, Shri M. Marimuthu, Mrs Sonal Shinde, Shri P.B. Parab, Mrs Ratnakumary Nair, Mrs Veena Parab, Shri Mahesh Rane and Shri Sameer Verlekar were present in this workshop. Md. Aftab Alam, Hindi Officer, NITIE, conducted the programme and gave the vote of thanks.





Dr Vishwanath Jha, Deputy Director (West), Central Hindi Training Sub-Institute, Ministry of Home Affairs, Govt. of India with the participants of the Hindi Workshop.-

4. CONSTITUTION DAY CELEBRATION

National Institute of Industrial Engineering (NITIE), Mumbai, organized the Constitution Day Celebration (Samvidhan Diwas Samaroh) on 26th November 2020. Prof. Manoj Kumar Tiwari, Director, NITIE, read the preamble of the Constitution followed by everyone present on the lawn consisting of Deans, Registrar, Faculty Members, Officers and Staff of the Institute at 10.30 am.

The Live Telecast of Constitution Day Celebration and preamble reading by Honorable President of India, Shri Ram Nath Kovind, at 11:00 am was attended by Prof. Manoj Kumar Tiwari, Director, NITIE; Prof. D.K. Srivastava, Professor and Chairman of Constitution Day Celebration Committee; Shri Basavaraj Swamy, Registrar and NITIE community.

Subsequently, the main programme formally started at 3.00 pm in Old Auditorium. On this occasion, the Chief Guest was Prof. (Dr.) Dilip Ukey, Vice-Chancellor, Maharashtra National Law University, Mumbai. The programme started with garlanding the statues of Dr B.R. Ambedkar and Chhatrapati Shivaji Maharaj. Prof. D.K. Srivastava, Professor and Shri Basavaraj Swamy, Registrar, welcomed the Chief Guest of the Constitution Day function.

Prof. (Dr.) Dilip Ukey highlighted that the understanding of the Constitution is very important

for each citizen of India. He stated that fraternity is at the heart of the Constitution and the Constitution helps build the nation's ethos.

The Chief Guest also gave away the prizes to the winners of the Constitution Day Essay competition. On this occasion, the NITIE library also organized a display of books related to the Indian Constitution. The programme was conducted by Md. Aftab Alam, Hindi Officer, NITIE. The function ended with a vote of thanks by Prof. Neeraj Pandey, Assoc. Professor, NITIE.



Oath taking ceremony by Prof. Manoj Kumar Tiwari, Director, NITIE and Shri Basavaraj Swamy, Registrar, NITIE.



Prof. (Dr.) Dilip Ukey, Vice-Chancellor, Maharashtra National Law University, Mumbai, addresses the audience on Constitution Day celebrations. On the dias Prof. D.K. Srivastava, Chairman, Constitution Day Celebrations Committee, Shri Basavaraj Swamy, Registrar, NITIE were present.



5. OFFICIAL LANGUAGE IMPLEMENTATION COMMITTEE & HINDI CO-ORDINATION COMMITTEE MEETINGS:

During the year 2020-21, NITIE conducted three joint meetings of the "Official Language Implementation Committee" and the "Hindi Coordination Committee" constituted to implement Official Language Hindi in the Institute on 15.9.2020, 15.12.2020 and 04.03.2021. Prof. Manoj Kumar Tiwari, Director, NITIE and Chairperson of the Committee, presided over the meetings. The Committee discussed in detail in meetings, and appropriate decisions were taken regarding implementing Official Language Hindi in the Institute.

6. ATTENDED - CONFERENCE / MEETING / WORKSHOPS. ETC:

MD. AFTAB ALAM. HINDI OFFICER

- Participated in an international online seminar (webinar) on 'Corona, Society and Literature' on 24th May 2020 from 4.00 pm to 6.00 pm under the joint aegis of K.M. Munshi Institute of Hindi Studies and Linguistics and Dr Bhimrao Ambedkar University, Agra.
- Participated in an online national webinar on "Changing methods of working and technology" on 27th May 2020 from 4.00 pm to 5.00 pm organized by Hansraj College, Delhi University.
- Participated in an online webinar on 'Digital Media and Hindi' on 12th September 2020 from 11.30 am to 1.00 pm organized by Rajbhasha Pariwar (Vaishwik Hindi Group).
- Participated in a two-day online training programme on 'Annual Performance Appraisal Report (APAR)" on 5th to 6th February 2021 organized by Integrated Training Programme and Research (ITPR), New Delhi.



VIGILANCE AWARENESS WEEK

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

The Vigilance Awareness Week was observed from 27th October 2020 to 10th November 2020 with the theme 'सतर्क भारत, समृद्ध भारत' ('Vigilant India, Prosperous India').

The Integrity Pledge was taken by the Faculty Members, Officers, Staff and Fellow Students at NITIE Lawns, presided by Prof. Manoj Kumar Tiwari, Director. In addition, an online pledge was taken by the Post Graduate Students and respective teaching Faculty Members, as per schedule.

A write-up on Anti-corruption was displayed on the Notice Boards and the Institute website.



NITIE WELFARE ACTIVITIES & EVENTS

NITIE Care for COVID Warriors of Mumbai

NITIE supported an important exercise for screening the community in the containment zone of S-Ward of Mumbai in collaboration with BMC and the Niramayseva Foundation. As a measure of its concern for the Mumbaikars, the Institute supported an enthusiastic COVID warrior team of Doctors and Volunteers numbering 25-30 with vital support in the form of a comfortable stay and food arrangements during the screening exercise.





6th International Day of Yoga (IDY) 2020 at NITIE

NITIE organised several online programmes to celebrate 6TH International Yoga Day-2020. Given COVID-19 and to maintain the need for social distancing, arrangements for the online Yoga sessions were made. This year the theme was Yoga with Family. To build up enthusiasm, we initiated an online session by Dr Nutan Pakhare, Yoga Trainer, Kaivalyadham, Mumbai, on June 19, 2020.

In the first part of the session, participants learnt general guidelines for Yoga practices to be followed at home, followed by the microcirculation training session. After that, the session enthralled the participants with the fundamentals of Yoga, connecting body and mind through the right breathing and aspects of Ashtanga yoga.

The second online session was scheduled on May 21, 2020, where participants performed yoga exercises as per the prescribed Common Yoga Protocol. Dr Nutan Pakhare, Yoga Trainer, and her students from Kaivalyadham conducted the session to demonstrate and facilitate common yoga protocol for participants from NITIE. Faculty members, Officers, Staff members and students performed Yoga from the vicinities of their safe homes along with their family members. IDY-2020 Team also invited a 1-minute video from students, employees and their family members on the theme, "Yoga with family - IDY 2020". Students are encouraged to participate in the Yoga Quiz by logging in at https://yoga.ayush.gov.in/yoga/quiz/index.php.





74th Independence Day 2020

NITIE Mumbai celebrated the 74th Independence Day on 15th August 2020 at NITIE Campus in a grand manner. Prof. Manoj Kumar Tiwari, Director, NITIE, hoisted the flag at 9.00 am at the lawn facing Vihar Lake.





Prof. Manoj Kumar Tiwari, Director, NITIE, presided over the function and inspired the audience by enlightening the importance of Independence Day. He shared his views regarding the COVID-19 pandemic and how NITIE handled the major challenges to its academic processes, i.e. Online Admission, Examination and now Online Classes.

To motivate and encourage the meritorious children of Faculty, Officers, staff for their performance in the 10th / 12th standard Board Examinations held in March/April 2020, a Certificate of appreciation and cash awards were distributed by the Director in Old Auditorium immediately after the flag hoisting ceremony. Also, a Certificate of appreciation was given by the Director in recognition/honour of COVID Warriors to all the Medical Staff and Security Guards.

On this occasion, NITIE Sports Committee organized a "Steps Counter Challenge" for all the students. The top 03 performers were Saurabh Patil (10625 steps, 7.22 km), Prashik Bhaisare (10119 steps, 6.68 km), and Jhandi Prasad Meena (9970 steps, 7.08 km won Amazon Gift Cards.

Unnat Bharat

As part of Institute CSR and our continued tradition of social outreach, NITIE team steps out to reach remote villages in Murbad Taluka of Thane district to help the villagers in the difficult times of COVID-19.

The villages have been adopted by NITIE under Unnat Bharat Abhiyan.





Ek Bharat Shreshtha Bharat (EBSB)

NITIE has partnered with IIT Bhubaneswar in accordance with the MHRD directive regarding Ek Bharat Shreshtha Bharat (EBSB) initiative, as Maharashtra is paired with Odisha under this initiative.

Objectives:

- To celebrate the unity in diversity of our nation
- To promote the spirit of national integration through a deep and structured engagement between the paired states
- To showcase the rich heritage and culture, customs and traditions
- To establish long-term engagements
- To create an environment that promotes learning between States by sharing best practices and experiences.

S.N.	Category/Event	Events	Date
1.	Utsavs and Mahotsavs Holi/Diwali/Eid/Christmas, other festivals	Celebration of Lohri, Pongal, Makar Sankranti, Agira Poornima	13-01-2021- 17-01-2021
2.	Utsavs and Mahotsavs Republic Day Celebration	De'Clickathon 2021 - Photography Contest	17-01-2021- 26-01-2021
3.	Utsavs and Mahotsavs Other programmes with youth participation	Shraddhanjali - Digital Poster/Sketching/ Painting Contest on "Legends of Maratha history"	
4.	EBSB Day / EBSB Club	EK BHARAT SHRESHTA BHARAT QUIZ (MARATHI AND ODIA)	26-09-2020- 02-10-2020
5.	Dissemination of Information About the Paired State	EBSB CONTESTS	15-08-2020- 03-09-2020
6.	Dissemination of Information About the Paired State	EBSB CONTESTS	15-08-2020- 03-09-2020
7.	Cultural Exchange	Cultural Exchange Language Class of Marathi Language	09-08-2020- 09-08-2020
8.	Dissemination of Information About the Paired State	Introduction to EBSB with New Batch	31-07-2020- 31-07-2020







National Youth Day celebrated in association with ThinkIndia

NITIE, Mumbai, in association with ThinkIndia, organised a scintillating talk to commemorate National Youth Day celebrated on the 12th of January 2021 to mark the birth of Swami Vivekananda. The event was graced by two esteemed speakers- Prof.Manoj Tiwari, Director, NITIE and Shri. Harihara Subramanian Social Activist and Trustee, Swami Vivekananda Rural Community College, Pondicherry.

Azadhi ka Amrut Mahotsav

NITIE celebrated Azadhi ka Amrut Mahotsav, Part of the Mahotsav; a faculty symposium is arranged on 12th March 2021 at 4.00 PM at ALB Foyer. Also conducted a student competition on Azadhi ka Amrut Mahotsav. Prizes and certificates were distributed to the student winners.

Republic Day Celebrations

The 72nd Republic Day was celebrated on 26 January 2021 at the NITIE Campus. The Republic Day celebration was started with Marathon at 06:30 AM at Taylor Hall.

Flag hoisting ceremony was done by Prof Manoj Tiwari, Director, NITIE, at 09:00 AM on the lawn facing Vihar Lake.



On this occasion, Mass singing of the National Anthem, and a Marchpast by NITIE Security personnel was conducted. Registrar NITIE led the mass reading of the preamble of the constitution. The students of the Institute presented patriotic songs.

The re-launch of NITIE Journal "Udyog Pragati" was done by the Director on this occasion. The programme was well supported by the NITIE Faculty, Officers, Staff and their family members, PGP, and Fellow students. The programme ended with prize distribution of Marathon and distribution of sweets and snacks.





ANNUAL ACCOUNTS



Annual Report 2020-2021





ANNUAL ACCOUNTS

For the financial year 2020-21, the Ministry of Education (MoE) has been sanctioned an amount of Rs. 60.57,00,000/-(Rs 6057.00 lakhs) towards Grant-in-Aid to the Institute. The details are as below:

Grant in Aid - An amount of Rs. 22,97,00,000/- (Rupees Twenty-Two Crores Ninety-Seven Lakhs Only) under OH-31 (Non salary), Rs.2,60,00,000/- (Two Crore Sixty Lakhs Only) under OH-35 (Creation of Capital assets), and Rs 35,00,00,000/- (Rupees Thirty-Five Crores Only) under OH-36 (Salary) was sanctioned during the Financial Year 2020-2021 by GOI, Ministry of Education (MoE) to NITIE, Mumbai.

Total Expenditure is Rs. 1,17,70,16,269/- (Under OH-31 is Rs. 79,59,56,973/-, For OH-35 is Rs. 6,20,37,941 and OH-36 is Rs.31,90,21,355/-) Closing balance as on 31st March 2021 is Rs. 5,36,24,428/- only.

The closing balance amount as on 31.03.2021 under OH-35 (Capital Assets) is overspent of Rs. (-) 3,60,37,941/- and balance under OH-31(Non Salary) is NIL and under OH-36 (Salary) is Rs. 8,96,62,368/-.

Details of Fund-Flow- Object head wise for the year 2020-21

During the Year 2020-21, Institute has received Grant - in - Aid and the detailed fund flow statement is as follows:

Object Head	Opening Balance As on 1.4.2020 (Rs in actuals)	Grant Sanctioned / received during the year (Rs in actuals)	Internal Revenue Generated (Rs in actuals)	Total Gross (Rs in actuals)	Expenditure (Rs in actuals)	Balance as on 31.3.2021 (Rs in actuals)
OH 31(Non Salary)	-5,86,83,723	22,97,00,000	62,49,40,696	79,59,56,973	79,59,56,973	0
OH 35 (Creation of Capital)	-6,74,14,412	2,60,00,000	6,74,14,412	2,60,00,000	6,20,37,941	-3,60,37,941
OH 36 (Salary)	5,86,83,723	35,00,00,000		40,86,83,723	31,90,21,355	8,96,62,368
Total	-6,74,14,412	60,57,00,000	69,23,55,109	1,23,06,40,696	1,17,70,16,269	5,36,24,428

OH - 31 (Non Salary)

Total expenditure accounted under this head is Rs. 79,59,56,973/-. (Actual expenditure of Rs 54,01,34,523/-which includes an amount of Rs 6,74,14,412 transferred to OH 35 from IRG. An amount of Rs. 9,55,00,000/-has been transferred to building fund and Rs. 8,25,79,846- has been transferred to contribution towards corpus / capital fund. An amount of Rs. 14,51,57,017/- earmarked towards the transfer to Endowment account from the Capital fund of Main Account). An amount of Rs 22,97,00,000/- fully utilized and shown as expenditure on OH31. Balance amount is adjusted from IRG of the Institute and accordingly unspent balance shown is NIL.

OH - 35 (Creation of Capital Assets)

An amount of Rs 6,74,14,412/- which was overspent as on 31.3.2020 has been adjusted from the Institute Generated Revenue during the financial year 2020-2021 as per the fiscal policy of MOE vide F.No.3-6/2019/ TS VIII dated 20.12.2019 and approval of the BOG minutes no.155 dated 16.1.2020. During the year, total



expenditure accounted under this head is Rs 6,20,37,941/- (Please refer Schedule 4 Additions – Deletions during the year). The said amount also has been reflected under Schedule1 towards the extent of utilized amount towards Capital expenditure during 20-21. An amount of Rs 3,60,37,941/- is reflected as overspent as on 31.3.2021. which will get adjusted during the financial year 21-22. It is expected certain plan component as a supplementary grant for the overspent of the previous year.

OH - 36 (Salary)

An amount of Rs 31,90,21,355 under this head is bifurcated from Income and Expenditure. An amount of Rs 8,96,62,368/- is the unspent balance as on 31.3.2021.

Details of Bank Accounts:

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.

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 and grant receivable account from HEFA.
12.	NITIE Avartan Account (Savings)	Canara Bank, IIT, Mumbai	Recurring expenditure – Student Activities



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 BCPAAA 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 2020-21 is annexed herewith.







Financial Statement for the Financial Year

2020-2021

NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING

Vihar Lake, Mumbai - 400 087.



NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI BALANCE SHEET AS AT 31ST MARCH, 2021

SOURCES OF FUNDS Current Year Previous Year CORPUS/CAPITAL FUND 1,667,816,726 1,656,003,317 DESIGNATED / EARMARKED / ENDOWMENT FUNDS 2 279,186,173 183,753,277 CURRENT LIABILITIES & PROVISIONS 3 373,080,356 275,612,101 TOTAL 1 2,320,083,254 2,115,368,695)	(Amount in Rupees)
D No. 2020-2021 RKED / ENDOWMENT FUNDS 1 1,667,816,726 R PROVISIONS 3 373,080,356 TOTAL 2,320,083,254		Schedule	Current Year	Previous Year
1 1,667,816,726 2 279,186,173 3 373,080,356 2,320,083,254	SOURCES OF FUNDS	No.	2020-2021	2019-2020
2 279,186,173 3 373,080,356 2,320,083,254	CORPUS/CAPITAL FUND	1	1,667,816,726	1,656,003,317
3 373,080,356 TOTAL 2,320,083,254	DESIGNATED / EARMARKED / ENDOWMENT FUNDS	2	279,186,173	183,753,277
2,320,083,254	CURRENT LIABILITIES & PROVISIONS	3	373,080,356	275,612,101
	TOTAL		2,320,083,254	

	Schedule	Current Year	Previous Year
APPLICATION OF FUNDS	No.	2020-2021	2019-2020
FIXED ASSETS	4		
Tangible Assets		976,854,832	984,064,957
Intangible Assets		13,654,506	2,911,161
Capital Work In Progress		168,630,040	168,630,040
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5		
Long Term		1	
Short Term		47,938,825	46,489,074
INVESTMENTS - OTHERS	9	840,502,121	484,923,980
CURRENT ASSETS	7	141,218,923	53,480,121
LOANS, ADVANCES & DEPOSITS	8	131,284,006	374,869,363
TOTAL		2,320,083,254	2,115,368,695

AR (FIN & ACCOUNTS) /DR (ACCOUNTS)

INTERNAL AUDITOR







IN & ACCOUNTS)/ DR (ACCOUNTS)

(Amount in Rupees)

		::	
Particulars	Schedule	Current Year	Previous Year
	No.	2020-2021	2019-2020
INCOME			
Academic Receipts	6	634,673,634	620,952,244
Grants / Subsidies	10	000'002'625	725,600,000
Income From Investment	11	45,303,184	36,776,278
Interest Earned	12	122,754	123,841
Other Income	13	12,255,536	1,567,288
Prior Period Income	14		
TOTAL (A)		1,272,055,109	1,385,019,651
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)	15	406,849,960	552,730,043
Academic Expenses	16	146,198,851	125,480,260
Administrative and General Expenses	17	55,429,708	55,501,028
Transportation Expenses	18	3,009,830	736,259
Repairs & Maintenance	19	120,202,443	64,009,324
Finance Costs	20	1,122,187	132,929
Depreciation	4	58,504,720	110,759,368
Other Expenses	21	67,671,636	2,825,094
Prior Period Expenses	22	166,544	6,018,601
Total (B)		859,155,878	918,192,906
Balance being excess of Income over Expenditure (A-B)		412,899,231	466,826,745
Transfer to / from Designated Fund			
Building Fund		000'005'56	95,500,000
Others (Contribution towards Corpus / Capital Fund)		82,579,846	93,365,349
Others (Unutilised Grant - OH-36 - Salary Componenet		89,662,368	
Balance being Surplus / (Deficit) carried to Capital Fund		145,157,017	277,961,396

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021 NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING



NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021

(Amount in Rupees)

RECEIPTS	Current Year 2020-2021	Previous Year 2019-2020	PAYMENTS	Current Year 2020-2021	Previous Year 2019-2020
1. Opening Balances			. Expenses		
a) Cash Balances	110,159	12,003	a) Establishment Expenses	376,332,479	407,380,388
b) Bank Balance			b) Academic Expenses	233,834,626	196,987,263
i. In Current Accounts			c) Administrative Expenses	47,958,486	47,964,357
SBI - Main Account	23,258,460	12,959,169	d) Transportation Expenses	2,498,701	504,734
Canara Bank - Plan Account	21,330,747	3,969,251	e) Repairs & Maintenance	56,027,573	44,591,794
Canara Bank - Avartan Account	1,448,473	1,183,868	f) Prior period Expenses	264,744	7,338,366
ii. In Deposit Accounts			g) Other Expenses		
iii. Savings accounts					
Canara Bank - ESCROW A/C-3 PRINCIPAL REPAYMENT					
Canara Bank - GRANT RECEIVABLE ACCOUNT					
Canara Bank - INTEREST REPAYMENT A/C					
II. Grants Received			II. Payments against Earmarked / Endowment Funds	421,809,000	294,704,162
a) From Government of India	875,700,000	463,100,000			
b) From State Government					
C) From other sources					
III. Academic Receipts	745,842,773	605,215,691	III. Payments against Sponsored Projects / Schemes	864,074	900,371
IV. Receipts against Earmarked / Endowment Funds	144,620,885	199,553,797 IV.	IV. Payments against Sponsored Fellowships / Scholarships	4,577,040	
			- 1		
V. Receipts against Sponsored Projects / Schemes	8,882,254	916,218	 V. Investments and Deposits made 		
		-	a) Out of Earmarked/Endowments funds		
			b) Out of own funds (Investments - Others)	1,418,877,270	1,228,169,824
VI. Receipts against sponsored Fellowships and	020 208 61				
Scholarships	13,405,958		VI. Ierm Deposits with Scheduled Banks	,	
VII Income on investments from			Wil Evanualities on Eived Access and Canital Work In		
			Progress		
a) Earmarked/Endowment funds			a) Fixed Assets	54.520.607	42.126.061
			185.8		



RECEIPTS	Current Year 2020-2021	Previous Year 2019-2020	PAYMENTS	Current Year 2020-2021	Previous Year 2019-2020
VIII. Interest received on			VIII. Other Payments including statutory payments	108,227,632	40,994,110
a) Bank Deposits	41,489,031	26,105,861			
b) Loans and Advances	170,437	115,389			
c). Savings Bank Accounts	775,545	781,112			
IX. Investments encashed	1,063,299,129	1,035,888,991	1,035,888,991 IX. Refunds of Grants		
X. Term Deposits with Schedúled Banks encashed		4	X. Deposits and Advances	85,040,622	96,397,623
XI. Other income (including Prior Period Income)	11,312,670	7,700,175	7,700,175 XI. Other Payments	652,090,203	280,095,495
XII. Deposits and Advances	38,299,721	99,941,735	XII. Closing balances		
			a) Cash in hand	231,066	110,159
			b) Bank balances		
			i. In Current Accounts		
			SBI - Main Account	26,815,806	23,258,460
			Canara Bank - Plan Account	8,300,603	21,330,747
			Canara Bank - Avartan Account	3,053,867	1,448,473
			iii. Savings accounts		
			Canara Bank - ESCROW A/C-3 PRINCIPAL REPAYMENT	95,500,000	
			Canara Bank - GRANT RECEIVABLE ACCOUNT	1,000	
			Canara Bank - INTEREST REPAYMENT A/C		,
XIII. Miscellaneous Receipts including Statutory Receipts	111,818,715	41,249,917			
XIV. Any Other Receipts	495,059,430	235,609,211			
TOTAL	3,596,825,397	2,734,302,387	TOTAL	3,596,825,397	2,734,302,387



N & ACCOUNTS) / DR (ACCOUNTS)





Financial Statement for the Financial Vear

2020-2021

(Boarding Charges for Participants & Alluminies Amenities) BCPAAA

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



NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING Vihar Lake, Mumbai - 400 087





BCPAAA (BOARDING CHARGES FOR PARTICIPANTS & ALLUMINIES AMENITIES)

			(vinoant in rapees)
SOURCES OF FUNDS	Schedule	Current year	Previous Year
	No.	7070-7071	07-6107
CORPUS / CAPITAL FUND	1	51,082,012	51,498,754
DESIGNATED / EARMARKED / ENDOWMENT FUNDS	2	990,735	382,086
CURRENT LIABILITIES & PROVISIONS	3	2,820,668	2,589,316
TOTAL		54,893,415	55,078,805

APPLICATION OF FUNDS	Schedule	Current year	Previous Year
	No.	2020-2021	2019-20
FIXED ASSETS			
Tangible Assets	4	4,562,665	4,757,039
Intangible Assets		1	
Capital Work In Progress		1	
INVESTMENTS FROM EARMARKED / ENDOWMENT FUNDS	5	E	
Long Term			
Short Term			,
INVESTMENTS - OTHERS	9	41,585,562	42,395,513
CURRENT ASSETS	7	6,194,454	6,580,567
LOANS, ADVANCES & DEPOSITS	8	2,550,734	1,345,686
TOTAL		54,893,415	55,078,805
			The state of the s





DIRECTOR

AR (HIN & ACCOUNTS)/DR (ACCOUNTS)





DIRECTOR

AR FIN & ACCOUNTS) / DR (ACCOUNTS)

MINTERNAL AUDITOR





(Amount in Rupees)



Particulars	Schedule No.	Current Year 2020-21	Previous Year 2019-20
INCOME			
Academic Receipts	6	0	
Grants / Subsidies	10		
Income From Investment	11	1,957,619	2,441,925
Interest Earned	12	0	5
Other Income	13	1,231,768	2,250,891
Prior Period Income	14	0	a
TOTAL (A)		3,189,387	4,692,816
EXPENDITURE			
Staff Payments & Benefits (Establishment Expenses)	15	34,347	28,349
Academic Expenses	16		1
Administrative and General Expenses	17	3,370,643	1,779,998
Transportation Expenses	18	-	1
Repairs & Maintenance	19	92'9	•
Finance Costs	20	1	1
Depreciation	4	194,374	194,374
Other Expenses	21	-	1
Prior Period Expenses	22		3,000
Total (B)		3,606,129	2,005,721
Balance being excess of Income over Expenditure(A-B)		(416,742)	2,687,095
Transfer to / from Designated Fund			
Building Fund			31
Others(Specify)			
Balance Being Surplus / (Deficit) carried to Capital Fund		(416,742)	2,687,095





















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Financial Statement for the Financial Year

2020-2021

ENDOWMENT FUND

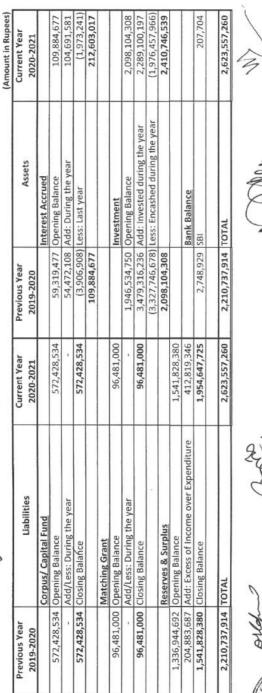
- 1. Balance Sheet
- 2. Income & Expenditure Account 3. Receipts & Payments Account



NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING Vihar Lake, Mumbai - 400 087







AR (FIN & ACCOUNTS) / DY. REGISTRAR(ACCOUNTS)

DIRECTOR

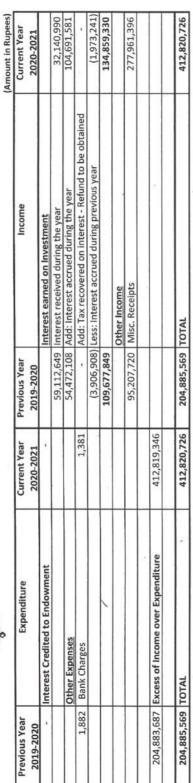
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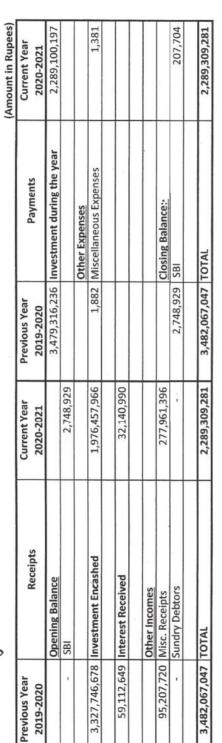
















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Financial Statement for the Financial Year

2020-2021

DIRECTOR DISCRETIONARY FUND (DDF)

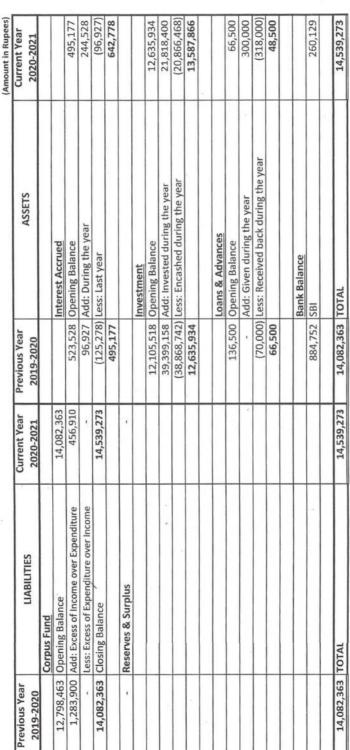
- 1. Balance Sheet
- 2. Income & Expenditure Account 3. Receipts & Payments Account



NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING Vihar Lake, Mumbai - 400 087









AR (FIN, & ACCOUNTS) / DR (ACCOUNTS)







DIRECTOR

NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING (NITIE), MUMBAI INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 2021 DIRECTOR DISCRETIONARY FUND (DDF)

689.473	TOTAL	1,502,038 TOTAL	689,473	TOTAL	1,502,038 TOTAL
			456,910	1,283,900 Excess of Income over Expenditure	1,283,900
	745,675 Transfer of Funds	745,675			
·	Consultancy Fees				
	Other Income		743	1,263 Misc. Expenses	1,263
689,473		756,363	225,925	204,740 Admn. Misc. Expenses	204,740
(96,927)	(125,278) Less: Interest accrued during previous year	(125,278)	1	- Consultancy Share	1
,	Add: Tax recovered on interest - Refund to be obtained	-	5,895	12,135 Out of Pocket Expenses	12,135
244,528	96,927 Add: Interest accrued during the year	96,927		Other Miscellaneous Expenses	
541,872	784,714 Interest received during the year	784,714			
	Interest earned on Investment		1	Interest Credited to DDF	*
2020-2021		2019-2020	2020-2021		2019-2020
Current Year	Income	Previous Year	Current Year	Expenditure	Previous Year
(Amount in Rupees)	(An			>	

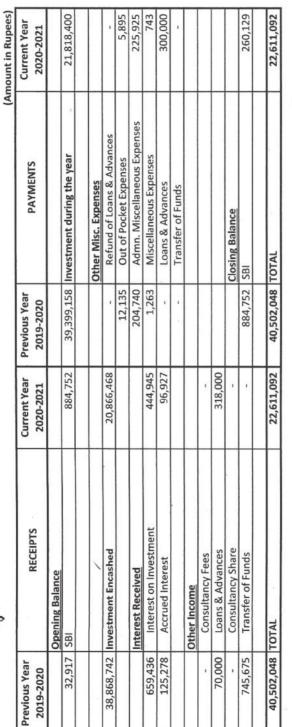
ACCOUNTS) /DR (ACCOUNTS)

INTERNAL AUDITOR

















AR (FIN. & ACCOUNTS) / DR (ACCOUNTS)

FORM GFR-22



Annual Report 2020-2021





INSTITUTE - EXTRACT IN FORM GFR - 22

APPENDIX TO THE Annual statement of the Accounts of the Institute - Extracts in form GFR -22 regarding assets of permanent value and machinery and equipment having a life of not less than 5 years and consisting Rs. 10,000/- and above (each item)

FORM GFR - 22

Name of the Grantee Institution	: NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING
Brief Purpose of the grant	: FOR INFRASTRUCTURAL FACILITIES
Whether any condition regarding the right ownership of Government in the property other assets acquired out of the grant was o corporate in the grant in aid sanction	
Purpose for which utilized at present	: FOR ACQURING EQUIPMENT
Encumbered or not	: N. A.
Reason if encumbered	: N. A.
Reason and authority if any for disposal	: OBSOLETE

Sr.	Date	Particulars of Assets	Particular	rs of supplier		Location of
No.			Name & Address	Bill No.and Date	Assets	Assets
1.	16.6.2020	Samsung Washing Machine	Sanjay sales	ORD3000202 19.6.2020	30,000.00	Estate
2.	2.6.2020	1) Ceiling fan 1200 mm 2) Ventilating fan 200 mm 3) Geyser (Water Heater 25 ltr. 4) Geyser (Water Heater 10 ltr. 5) Ceiling fan 1400 mm	Enrenew Solutions	ES/20-21/001 15.7.2020	100673	Estate
3.	16.6.2020	Automatic Hand Sanitizer Dispenser 2000 ml Pedal Dispenser with pump bottle	B A G Electronic Technology	BAGET/20-21/050 27.7.2020	1,42,713/-	Estate
4.	16.6.2020	Disinfectant Fog Machine Office sanitizing machine	B A G Electronic Technology	BAGET/20-21/049 27.7.2020	1,81,078/-	Estate
5.	17.3.2020	Microtek UPS Tuff Power Pro + 650 VA	VR Enterprises	VR0276 dt. 07.08.2020	12,600/-	Director's Office



Sr.	Date	Particulars of Assets	Particular	rs of supplier		Location of
No.			Name & Address	Bill No.and Date	Assets	Assets
6.	12.8.2020	 5 Ft Ht FRP Double Roller Slide Standard see Saw Garden Bench Mini Combination Set Multi Climber Fish Shape FRP Dustbin 	Global Equipment	20/2020-21 21.7.2020	2,09,280/-	Estate
7.	3.9.2020	I Phone SE-2 Black 128 GB	Goodluck Mobile Centre	GD/20-21/0985 Dt. 17.09.2020	47,000/-	Director's Office
8.	13.7.2020	Battery for Fire Alarm System Notifier Photoelectric detector	B A G Electronic Technology	BAGET/19-20/131 13.03.2020	2,28,883/-	Estate
9.	13.7.2020	36 Watt LED 2X2 based panel light	Azpire Smart Tech	ASTPT/19-20/001 Dt. 20.03.2020	34,070/-	Estate
10.	22.9.2020	5 KVA On-line UPS (With 30 min. battery	Ashish Infotech	A1202002-035 Dt. 06.02.2020	6,12,130/-	Estate
11.	15.9.2020	Xerox Multifunction Colour Photocopier	Horizon Info Solution	HIS/2021/0160 Dt. 24.09.2020	4,98,515/-	Estate
12.	26.6.2020	1) Submersible Pumps 2 No 2) Installation	Video Centre	CR/1784/19-20 Dt. 17.03.2020	31,900/-	Alumni Association
13.	18.11.2021	Dustbin 100 ltr with MS Stand Nilkamal	Color Print	CP/19-20/754 Dt. 06.02.2020	17,145/-	Security & Transport
14.	17.11.2020	Dewatering Pump (GrundfosKPC 600)	Meghdoot Pumps & Services	271 Dt. 19.10.2020	17,000/-	Estate
15.	13.7.2020	Indiabulls LED Light 200 Watt Floodlight	B A G Electronic Technology	BAGET/20-21/082 Dt. 05.11.2020	2,20,416/-	Estate
16.	14.9.2020	Aquaguard AG 200 Water filter cum purifier	Eureka Forbes Limited	Invoice- I21050011531 Dt. 29.9.2020	2,46,400/-	Estate
17.	22.9.2020	10 KVA Online UPS	Hitachi Hi- REL Power Electronice pvt ltd	SINV 1920GIT1519 Dt.22.01.2020	1,03,550/-	Estate
18.	4.3.2020	Dental Setup Onyx regular New dental chair with U/H	Chesa Inc	20100011 Dt.17.02.2020	6,00,300/-	Dispensary
19.	4.4.2020	Ventilation solution 1) Dream Station Bipap Avaps N Sr.J25891516B5f5 2) Dreamstation Humidifier Sr. H266500487A33	Evron Biocaraft	EBPL/009 Dt.04.04.2020	1,01,000/-	Dispensary



Sr.	Date	Particulars of Assets	Particula	ars of supplier		Location of
No.			Name & Address	Bill No.and Date	Assets	Assets
20.	2.11.2020	1) Microtek UPS1000 VA 2) Zebronic UPS U-725	Future Electronics	0000290 Dt.18.11.2020	12604/-	Director's Office
21.	15.11.2020	Pedestal fan Sweep 400 mm	Kendriya Bhandar	544/20-21 Dt.17.11.2020	1,79,242	Estate
22.	24.7.2020	BEETEL ABS Telephone Instrument Single Push button	Ananya Infosolution	029 Dt.2.11.2020	79,600/-	Telephone
23.	6.11.2020	Xerox Versalink B7025 Sr. No. 3942892267	Horizon Info Solution	HIS/2021/0227 Dt. 11.11.2020	1,35,235/-	CPSC
24.	26.11.2020	1100 litre metal waste Handling Bin Specifications	Murali Arts & Associates	095 Dt.4.01.2021	2,45,440/-	Estate
25.	13.7.2020	36 Watt LED 2X2 based panel light	Azpire Smart Tech	ASTPT/19-20/001 Dt. 27.10.2020	34,070/-	Estate
26.	12.1.2021	Water Dispenser	J.K Enterprises	JKE/2020-21/393 Dt.04-02-2021	20,201/-	S&T Admn
27.	19.11.2020	Vacuum Cleaner	Aqua Refined	Serial 2299 Dt.8.02.2021	19,580/-	Academic
28.	8.12.2020	Ventilating Fan 250 mm and 200mm 15 Watt round Panel 6 Watt LED Spot Light	Enrenew Solutions	ES/20-21/003 Dt.20.01.2021	2,41,493/-	Estate
29.	6.12.2020	Interactive Smart Board 1) Clevertouch 86" Interactive Display 2) OPS Unit	B A G Electronic Technology	BAGET/20-21/145 Dt.20.02.2021	4,13,000/-	Estate
30.	8.1.2020	Santry Post (Security Cabin)	Nais Enterprises	023/2020-21 Dt.17.02.2021	2,98,000/-	Security & Transport
31.	31.12.2020	Aquaguard Potable water purification system with inbuilt water cooler UV	Unique Automation	10798381 Dt.22.1.2021	2,05,893/-	Estate (Electrical)
32.	29.8.2020	1) Channel Digital Video Recorder 2) LAI D053620 - IRX	Acertec Technologies Pvt Ltd	SEC/0361/20-21 Dt.7.01.2021	16,992/-	Security & Transport
33.	12.10.2020	Groundfos make CRE-10- 6 Surface hydro-pneumatic system	Meghdoot Pumps & Services	460 Dt.21.01.2021	12,54,400/-	Estate
				Total	65,90,403/-	





Sr.	Date	Particulars of Assets	Particula	rs of supplier		Location of
No.			Name & Address	Bill No.and Date	Assets	Assets
1.	18.6.2020	Relecura Professional Annual Subscription	Relecura Technologies Pvt.Ltd	20-21/002 Dt.6.07.2020	2,36,000/-	Computer Centre
2.	18.2.2020	Bloomberg One Terminal	Bloomberg	6750139722 Dt.26.05.2020	6,06,938/-	Computer Centre
3.	11.8.2020	1) Checkpoint CPAP- SG660nGTX 2) Checkpoint CPAP-NGSM405	Digitaltrack Solution Pvt. Ltd	GST/98/20-21 Dt.4.09.2020	24,44,960/-	Computer Centre
4.	27.3.2020	Bloomberg One Terminal	Bloomberg	6750144140 Dt.17.08.2020	5,96,151/-	Computer Centre
5.	17.9.2020	Dell Latitude 3400 i7, HSN: 84713010 Intel Corei7- 10510U/1 x 8GB/512GB/Win 10 Pro/14" FHD/KB/3YRS ADP	Maxmann Computer Industries	MCI/2010011 Dt.21.10.2020	9,45,180/-	Computer Centre
6.	19.6.2020	Laptop: Lenovo Think Book 15 IML i7	Yuratech Global Pvt.Ltd	YURA/20.21/158 Dt.22.10.2020	78,000/-	Computer Centre
7.	4.11.2020	1)Lamination Machine fully automatic upto A/3 size with hot and cold. 2) JBSI Janine A/4 Pouch Laminator	Pritroniks Technologies Pvt.Ltd	PRI2021137 Dt.9.11.2020	12,999/-	Placement
8.	18.2.2020	Bloomderg Terminal From 13.11.20 to 12.2.2020	Bloomberg	6750149267 Dt.16.11.2020	5,94,756/-	Computer Centre
9.	4.10.2020	Xerox Laser Colour Computer Printers for A/3 paper size	R.M Enterprises	RM/20-21/11152 Dt.24.11.2020	2,71,081/-	Placement
10.	4.12.2020	Canon Digital MF-241D Printer WQP-29657	Kalapurna Enterprise	201/DEC/20-21 Dt.9.12.2020	19,397/-	Stores
11.	10.12.2020	XP PEN Deco Pro Medium Graphics Drawing Table	Unicomp IT Solution	1081/20-21 Dt.17.12.2020	6,35,784/-	Computer Centre
12.	10.12.2020	HP Laser Jet Pro M1136 Multifunction Printer	Sainath Overseas Systems Pvt. Ltd	GEM.7061546 Dt.12.03.2020	12,500/-	NITIE Alumi Association
13.	18.2.2020	Adobe Creative Cloud for Teams License	LDS Infotech Pvt.Ltd	LDS/19-20/0255 Dt.30.03.2020	14,05,710/-	Computer Centre





Sr.	Date	Particulars of Assets	Particula	rs of supplier		Location of
No.			Name & Address	Bill No.and Date	Assets	Assets
14.	28.5.2020	Renewal of Microsoft Open Value Subscription Licenses	LDS Infotech Pvt.Ltd	LDS/20-21/0416 Dt.24.06.2020	9,95,351/-	Computer Centre
15.	29.12.2020	Aumsoft Akruti 32/64 Corporate LIC	Smart Solutions	SS/20-21/096 Dt.20.01.2021	53,100/-	Hindi section
16.	4.12.2020	IBM ILOG CPLEX Optimization Studio Developer Edition (Software)	Veractiz Solutions Pvt. Ltd	IN_285_20-21 Dt.10.12.2020	14,75,001/-	Computer Centre
17.	23.12.2020	Any Logistix Studio Academic Perpetual License for teaching & research only	Maxrad Software India Pvt.Limited	MS/20-21/014 Dt.4.01.2021	5,41,620/-	Computer Centre
18.	8.1.2020	Canon Digital MF-241D Printer WQP-36573	Arihant Enterprise	GEM.10663584 Dt.14.01.2021	19,051/-	Security & Transport
19.	6.1.2021	Laptop Notebook LTPDL DELL 3510	Digitech Electronic Systems Pvt. Ltd	GEM.20-21/1005 Dt.4.02.2021	1,66,998/-	Placement
20.	26.2.2020	Desktop Compurer : Acer Intel Care i5 8400 8GB/ 1000 GB HDD/Windows	Sai Infocare Pvt.Ltd	7057440 Dt.12.3.2020	83,475/-	NITIE Alumni Association
21.	7.10.2020	Coursera for Campurs for faculty	Coursera	11918 Dt.30.10.2020	39,86,906/-	Library
22.	29.12.2020	Evolis Primacy duplex Expert Red USB & Ethernet	Laser Telesystems Pvt.Ltd	A/FO1/71586 25.2.2021	50,740/-	Library
				Total	15,231,698/-	



ANNEXURES



Annual Report 2020-2021





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 31-03-2021

Sr.	Designation	7 CPC Pay	Level	Special Pay		Status of Post	f Post		Group of	No.of	Number of
No.	No. of the Post in Full	(Min Max.)		NPA Central Deput. Allow etc. attached to the post; if any	Gazetted Regular Tempo-	Regular	Tempo- rary	Super- numer- ary	Post Group-A Group-B Group-C Group-D	sanctioned Posts	Employees in Position
AC.	ACADEMIC										
-:	DIRECTOR	225000 Fixed	17		* N.G.	1	0	0	А	1	1
2.	PROFESSOR	159100-220200 **AM	14A		* N.G.	18	0	0	A		18
ю.	ASSOCIATE PROFESSOR	139600-211300 **AM	13A2		* N.G.	16	0	0	А		16
4.	ASSISTANT PROFESSOR GR.I	101500-167400 **AM	12		* N.G.		0	0	А	84	
5.	ASSISTANT PROFESSOR GR.II	84800-117200 **AM	11		* N.G.	18	0	0	А		18
.9	ASSISTANT PROFESSOR GR.II	70900-98200 **AM	10		* N.G.		0	0	A		
7.	MANAGER, COMPUTER CENTRE	78800-209200	12		* N.G.	0	0	0	А	1	0
8.	LIBRARY & INFO. OFFICER	67700-208700	11		* N.G.	0	0	0	А	1	0
9.	SYSTEMS DESIGNER	67700-208700	11		* N.G.	1	0	0	А	2	1
10.	SENIOR PROGRAMMER	67700-208700	11		* N.G.	1	0	0	А	2	1
1.	11. PROGRAMMER	44900-142400	7		* N.G.	2	0	0	В	4	2

^{*} Non-Gazetted

^{**} 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 31-03-2021

Sr.	Sr. Designation	7 CPC Pay	Level	Special Pay		Status of Post	i Post		Group of	No.of	Number of
Š	No. of the Post in Full	(Min Max.)		NPA Central Deput. Allow etc. attached to the post; if any	Gazetted /Non-Gaz	Regular Tempo-rary	Tempo- rary	Super- numer- ary	Post Group-A Group-C Group-C Group-D	sanctioned Posts	Employees in Position
NOI	NON-ACADEMIC										
-i	REGISTRAR	144200-218200	14		* N.G.	П	0	0	A	1	1
23	C.O.E.	78800-209200	12		* N.G.	П	0	0	A	1	1
3.	DEPUTY REGISTRAR	78800-209200	12		* N.G.	0	0	0	A	3	0
4.	MEDICAL OFFICER	56100-177500	10	#	* N.G.	1	0	0	A	1	1
5.	ASSISTANT REGISTRAR	56100-177500	10		* N.G.	4	0	0	A	4	4
.9	ACCOUNTS OFFICER	47600-151100	8		* N.G.	0	0	0	В	1	0
7.	HINDI OFFICER	44900-142400	7		* N.G.	1	0	0	В	1	1
8.	SECRETARY TO DIRECTOR	44900-142400	7		* N.G.	0	0	0	В	1	0
9.	SR. SUPERINTENDENT	44900-142400	7		* N.G.	2	0	0	В	4	2
10.	ASST.LIB.&INFO.OFFICER	44900-142400	2		* N.G.	1	0	0	В	1	1
11.	SUPERINTENDENT	35400-112400	9		* N.G.	7	0	0	В	13	7
12.	HINDI TRANSLATOR (SR.)	44900-142400	2		* N.G.	0	0	0	В	1	0
13.	SR.LIB.&INFO.ASSISTANT	35400-112400	9		* N.G.	2	0	0	В	2	2
14.	ASSISTANT	35400-112400	9		* N.G.	22	0	0	В	12	5
15.	NURSE	35400-112400	9		* N.G.	1	0	0	В	1	1
16.	SR. STENOGRAPHER	35400-112400	9		* N.G.	1	0	0	В	11	1
17.	LIB. & INFO. ASSISTANT	35400-112400	9		* N.G.	0	0	0	В	2	0
18.	JR. HINDI TRANSLATOR	35400-112400	9		* N.G.	1	0	0	В	1	1
19.	HOSTEL MANAGER	29200-92300	2		* N.G.	0	0	0	С	1	0
20.	CASHIER	29200-92300	2		* N.G.	1	0	0	С	1	1



Sr.	Designation	7 CPC Pay	Level	Special Pay		Status of Post	f Post		Group of	No.of	Number of
o N	No. of the Post in Full	(Min Max.)		NPA Central Deput. Allow etc. attached to the post; if any	Gazetted /Non-Gaz	Regular Tempo-rary	Tempo- rary	Super- numer- ary	Post Group-A Group-B Group-C Group-D	sanctioned Posts	Employees in Position
NO	NON-ACADEMIC										
21	21. COMPOUNDER	29200-92300	rc		* N.G.	1	0	0	S	2	1
22.	T.O.C.R.	25500-81100	4		* N.G.	2	0	0	C	2	2
23.	JR. STENOGRAPHER	25500-81100	4		* N.G.	1	0	0	Э	2	1
24.	U. D. C.	25500-81100	4		* N.G.	6	0	0	C	13	6
25.	L. D. C.	19900-63200	2		* N.G.	14	0	1	Э	26	14
26.	LIBRARY CLERK	19900-63200	2		* N.G.	I	0	0	Э	4	1
27.	DESPATCH RIDER	19900-63200	2		* N.G.	0	0	0	Э	1	0
28.	TELEPHONE OPERATOR	19900-63200	2		* N.G.	4	0	0	Э	9	4
29.	29. MISTRY	18000-56900	1		* N.G.	0	0	0	Q	2	0
30.	DAFTARY	18000-56900	1		* N.G.	2	0	0	Q	3	7
31.	LIB. ATTENDANT	18000-56900	1		* N.G.	0	0	0	Q	4	0
32.	BEARER	18000-56900	1		* N.G.	1	0	3	Q	2	1
33.	HOSTEL ATTENDANT	18000-56900	1		* N.G.	0	0	0	Q	7	0
34.	PEON	18000-56900	1		* N.G.	2	0	0	Q	20	2
35.	WATCHMAN	18000-56900	1		* N.G.	2	0	0	Q	12	7
36.	SWEEPER	18000-56900	1		* N.G.	5	0	0	D	12	2
37.	37. MALI	18000-56900	1		* N.G.	0	0	0	D	2	0
38.	. ATTENDANT	18000-56900	1		* N.G.	8	0	0	Q	18	8

NPA



NA. Central Gazetted Regular Tempo Super Allow etc. A	Sr.	Sr. Designation	7 CPC Pay	Level	Special Pay		Status of Post	f Post		Group of	No.of	Number of
HATCAL EXECUTIVE ENGINEER GYT00-208700 11 N.N.G. 11 0 0 0 0 0 11 DATA PROCESSING ASST.GRB 44900-142400 7 TECHNICAL ASST.(SR) 35400-112400 6 N.N.G. 10 0 0 0 0 0 0 0 0 0 0 0 0	o Z	of the Post in Full	(Min Max.)		NFA Central Deput. Allow etc. attached to the post; if any	Gazetted /Non-Gaz	Regular	Tempo- rary	Super- numer- ary	Fost Group-A Group-C Group-C Group-D	sanctioned Posts	Employees in Position
EXECUTIVE ENGINEER 67700-208700 11 *N.G. 1 0 A VIDEO CAMERAMAN 35400-112400 6 *N.G. 0 0 0 B DATA PROCESSING ASST,CRB 44800-142400 7 *N.G. 0 0 0 B B AFECHNICAL ASST,(SR) 35400-112400 6 *N.G. 1 0 0 B B AR. ENGINEER 35400-112400 6 *N.G. 1 0 0 B B AR. ENGINEER 35400-112400 6 *N.G. 0 0 0 B B DATA ENTRY OPR, GRC 35500-112400 6 *N.G. 0 <	TEC	HNICAL										
VIDEO CAMERAMAN 35400-112400 6 * N.G. 0 0 B B DATA PROCESSING ASST.GRB 44900-142400 7 * N.G. 1 0 0 B B TECHNICAL ASST.(SR) 35400-112400 6 * N.G. 1 0 0 B B JR. ENGINEER 35400-112400 6 * N.G. 0 0 0 B B JR. ENGINEER 35400-112400 6 * N.G. 0 0 0 0 0 D <td>1.</td> <td></td> <td>67700-208700</td> <td>11</td> <td></td> <td>* N.G.</td> <td>1</td> <td>0</td> <td>0</td> <td>A</td> <td>1</td> <td>1</td>	1.		67700-208700	11		* N.G.	1	0	0	A	1	1
DATA PROCESSING ASST.GR.B 44900-142400 7 * N.G. 0 0 B TECHNICAL ASST.(SR) 35400-112400 6 * N.G. 1 0 0 B JR. ENGINEER 35400-112400 6 * N.G. 2 0 0 B B JR. ENGINEER 35400-112400 6 * N.G. 0 0 0 B B DATA ENTRY OPR.GR-B 35400-112400 6 * N.G. 0 0 0 C 0 D <td< td=""><td>2</td><td></td><td>35400-112400</td><td>9</td><td></td><td>* N.G.</td><td>0</td><td>0</td><td>0</td><td>В</td><td>1</td><td>0</td></td<>	2		35400-112400	9		* N.G.	0	0	0	В	1	0
TECHNICAL ASSTI(SR) 35400-112400 6 * N.G. 1 0 0 B JR. ENGINEER 35400-112400 6 * N.G. 2 0 0 0 B JR. ENGINEER 35400-112400 6 * N.G. 0 0 0 0 C DATA ENTRY OPR.GR-C 35500-91300 5 * N.G. 0 0 0 C C DATA ENTRY OPR.GR-B 25500-81100 4 * N.G. 0 0 0 C C DRAUGHTSMAN 25500-81100 4 * N.G. 0 0 0 C C DATA ENTRY OPR GR-A 25500-81100 4 * N.G. 0 0 0 C C DATA ENTRY OPR GR-A 25500-81100 4 * N.G. 0 0 0 C C MECH. B 8 * N.G. 2 0 0 0 C C MECH. C 9 0 0	3.		44900-142400	7		* N.G.	0	0	0	В	2	0
JR. ENGINEER 35400-112400 6 * N.G. 2 0 0 B P TECH. ASSISTANT 29200-92300 5 * N.G. 0	4.		35400-112400	9		* N.G.	1	0	0	В	2	1
TECH. ASSISTANT 9200-92300 5 * N.G. 0 0 C C DATA ENTRY OPR.GR-C 35400-112400 6 * N.G. 1 0 0 0 D <td>5.</td> <td></td> <td>35400-112400</td> <td>9</td> <td></td> <td>* N.G.</td> <td>2</td> <td>0</td> <td>0</td> <td>В</td> <td>3</td> <td>2</td>	5.		35400-112400	9		* N.G.	2	0	0	В	3	2
DATA ENTRY OPR.GR.C 35400-112400 6 * N.G. 1 0 0 B DATA ENTRY OPR.GR.B 29200-92300 5 * N.G. 0 0 0 0 0 0 MECH. A' 25500-81100 4 * N.G. 0	6.		29200-92300	2		* N.G.	0	0	0	C	2	0
DATA ENTRY OPR, GR-B * N.G. * N.G. 0 0 C MECH. A' 25500-81100 4 * N.G. 0 0 0 C DATA ENTRY OPR GR-A 25500-81100 4 * N.G. 0 0 0 C DATA ENTRY OPR GR-A 25500-81100 4 * N.G. 0 0 C C MECH. B' 25500-81100 4 * N.G. 0 0 C C DRIVER 19900-63200 2 * N.G. 0 0 C C PLUMBER 19900-63200 2 * N.G. 0 0 C C MECH. C' 19900-63200 2 * N.G. 1 0 C C DUPLICATING OPERATOR 19900-63200 2 * N.G. 1 0 C C BUS ATTENDANT 18000-56900 1 * N.G. 1 0 D D D MOTOR CLEANER 18000-56900 1	7.		35400-112400	9		* N.G.	1	0	0	В	2	1
MECH. A 25500-81100 4 * N.G. 0 0 C DRAUGHTSMAN 25500-81100 4 * N.G. 0 0 0 C DATA ENTRY OPR GR-A 25500-81100 4 * N.G. 0 0 C C MECH. B' 25500-81100 4 * N.G. 0 0 C C DRIVER 19900-63200 2 * N.G. 0 0 C C PLUMBER 19900-63200 2 * N.G. 0 0 C C MECH. C' 19900-63200 2 * N.G. 0 0 C C DUPLICATING OPERATOR 19900-63200 2 * N.G. 1 0 C C DUPLICATING OPERATOR 18000-56900 1 * N.G. 1 0 0 D BUS ATTENDANT 18000-56900 1 * N.G. 0 0 0 D D MOTOR CLEANER 18000-56900	œ.		29200-92300	22		* N.G.	0	0	0	C	4	0
DRAUGHTSMAN 25500-81100 4 * N.G. 0 0 C DATA ENTRY OPR GR-A 25500-81100 4 * N.G. 0 0 0 C MECH. B' 25500-81100 4 * N.G. 0 0 C C DRIVER 19900-63200 2 * N.G. 2 0 C C PLUMBER 19900-63200 2 * N.G. 4 0 C C MECH. C' 19900-63200 2 * N.G. 4 0 C C DUPLICATING OPERATOR 19900-63200 2 * N.G. 1 0 C C BUS ATTENDANT 18000-56900 1 * N.G. 1 0 D D MOTOR CLEANER 18000-56900 1 * N.G. 0 0 D D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 D D	9.		25500-81100	4		* N.G.	0	0	0	С	5	0
DATA ENTRY OPR GR-A 25500-81100 4 * N.G. 0 0 C C MECH. B' 25500-81100 4 * N.G. 0 0 0 C C DRIVER 19900-63200 2 * N.G. 2 0 0 C C PLUMBER 19900-63200 2 * N.G. 4 0 0 C C MECH. C' 19900-63200 2 * N.G. 4 0 0 C C DUPLICATING OPERATOR 19900-63200 2 * N.G. 1 0 C C C DUMPLICATING OPERATOR 18000-56900 1 * N.G. 1 0 C C C BUS ATTENDANT 18000-56900 1 * N.G. 1 0 0 D D D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D D D D D D D	10.		25500-81100	4		* N.G.	0	0	0	C	1	0
MECH. B' 4 * N.G. 0 0 C DRIVER 19900-632000 2 * N.G. 2 0 0 C PLUMBER 19900-632000 2 * N.G. 0 0 C C MECH. C' 19900-632000 2 * N.G. 4 0 0 C C DUPLICATING OPERATOR 19900-632000 2 * N.G. 1 0 0 C C PUMP ATTENDANT 18000-56900 1 * N.G. 1 0 0 D D MOTOR CLEANER 18000-56900 1 * N.G. 1 0 0 D D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D D	11.		25500-81100	4		* N.G.	0	0	0	C	3	0
DRIVER * N.G. * N.G. 2 * N.G. 2 0 0 C PLUMBER PLUMBER 19900-632000 2 * N.G. 0 0 0 0 C C MECH. 'C' 19900-632000 2 * N.G. 4 0 0 C C C C C D D C D D C D C C D C D C D C D	12.		25500-81100	4		* N.G.	0	0	0	C	2	0
PLUMBER * N.G. * N.G. 0 0 0 C MECH. 'C' 19900-63200 2 * N.G. 4 0 0 C DUPLICATING OPERATOR 19900-63200 2 * N.G. 1 0 C C PUMP ATTENDANT 18000-56900 1 * N.G. 1 0 0 D MOTOR CLEANER 18000-56900 1 * N.G. 1 0 0 D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D	13.		19900-63200	2		* N.G.	2	0	0	С	6	2
MECH. 'C' 19900-63200 2 * N.G. 4 0 0 C DUPLICATING OPERATOR 19900-63200 2 * N.G. 1 0 0 C PUMP ATTENDANT 18000-56900 1 * N.G. 1 0 0 D MOTOR CLEANER 18000-56900 1 * N.G. 1 0 0 D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D	14.		19900-63200	2		* N.G.	0	0	0	C	2	0
DUPLICATING OPERATOR 19900-63200 2 * N.G. 1 0 0 C PUMP ATTENDANT 18000-56900 1 * N.G. 1 0 0 D D BUS ATTENDANT 18000-56900 1 * N.G. 1 0 0 D D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D D	15.		19900-63200	2		* N.G.	4	0	0	С	8	4
PUMP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D BUS ATTENDANT 18000-56900 1 * N.G. 1 0 0 D MOTOR CLEANER 18000-56900 1 * N.G. 1 0 0 D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D	16.		19900-63200	2		* N.G.	1	0	0	C	2	1
BUS ATTENDANT 18000-56900 1 * N.G. 1 0 D D MOTOR CLEANER 18000-56900 1 * N.G. 1 0 0 D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D	17.		18000-56900	1		* N.G.	0	0	0	D	8	0
MOTOR CLEANER 18000-56900 1 * N.G. 1 0 D D WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 0 D D	18.		18000-56900	1		* N.G.	1	0	0	D	2	1
WORKSHOP ATTENDANT 18000-56900 1 * N.G. 0 0 D D	19.		18000-56900	1		* N.G.	1	0	0	D	2	1
	20.	WORKSHOP ATTENDANT	18000-56900	1		* N.G.	0	0	0	D	1	0



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

GROUP OF POST	SANCTIONED POST	EMPLOYEES IN POSITION (R+T+S)
	ACADEMIC	
A	91	55
В	4	2
С	0	0
D	0	0
SUB-TOTAL	95	57
	NON-ACADEMIC	
A	10	7
В	51	21
С	58	33
D	90	23
SUB-TOTAL	209	84
	TECHNICAL	
A	1	1
В	10	4
С	38	7
D	8	2
SUB-TOTAL	57	14
TOTAL	361	155

R - Regular

T - Temporary

S - Supernumerary



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