Academic Year: 2021-22
Department of Computer Engineering

ACADEMIC REPORT

July 2021 – Dec 2021

1. About Department
2. Administration
3. Special Academic Programs
4. Faculty Contribution
   4.1 Faculty Publications: National / International Conference / Journal
   4.2 Interaction of Faculty with Outside World
   4.3 Seminars/Workshops/Conferences/FDP/STTP/Expert talk organized
   4.4 Seminars/Workshops/Conferences/FDP/STTP/Expert talk attended
5. Students' Achievement
6. Placement Data

1. DEPARTMENT

Department VISION

To impart high quality education, promote research culture and inculcate ethical values to develop/produce professionally competent engineers capable of meeting global challenges.

Department MISSION

1. Encourage research aptitude and analytical approach to prepare students for facing technological challenges in computing field.
2. Develop professionals, equipped with soft skills, ethical and social values for betterment of society.
3. Create awareness about sustainability concerns and ongoing trends in computing field.
4. To nurture and provide a collaborative environment for enabling aspiring technocrats to meet industry expectations.
5. Provide competent faculty and systematic modern approach in teaching-learning with stateof-art infrastructure.

Program Educational Objectives [PEO]

1. To impart quality education to students, while encouraging innovations and research culture in keeping abreast with technological advancements in computing.
2. To develop computer professionals with comprehensive knowledge, capable of facing indigenous and global challenges.
3. Develop computer professionals to fulfill industry expectations and social aspirations.

Academic Year: 2021-22
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Programs Specific Outcomes [PSO]

By the completion of Computer Science program, the student will have following Program specific outcomes.

1. Ability to understand and assess fundamental and advanced principles of computer hardware and software systems.

2. Comprehensive knowledge and practical competence with a broad range of programming languages enabling graduates to understand the structure, design and development methodologies of software systems on various platforms.

3. Ability to efficiently model real-world problems using appropriate data structures and algorithms.

4. Capability of applying computing knowledge in multidisciplinary domains to identify problems and provide solution to them.

About the Department

- Started in the year 2001 with undergraduate program affiliated with University of Mumbai.
- NBA Accredited
- Intake: BE: 120, ME: 18, PhD: 10
- Fully air-conditioned classrooms with LCD Projectors
- Laboratories equipped with advance software and hardware
- Provide all kinds of support to develop application with advanced technologies.

Courses offered

- B.E Computer Engineering
- M.E Computer Engineering
- Ph.D Technology

2. ADMINISTRATION

ACM Committee

Dr. Narendra Shekokar Dr. Aruna Gawade Prof. Pankaj Sonawane

Project Committee

Dr. Chetashri Bhadane Prof. Ruhina Karani

Academic Report

Dr. Chetashri Bhadane Prof. Aniket Kore

Departmental Library Committee

Prof. Pankaj Sonawane

Maintenance Audit Committee

Prof. Pankaj Sonawane

DJ Unicode Committee

Dr. Narendra Shekokar Prof. Pranit Bari Prof. Aniket Kore

Program Assessment Committee

Dr. Meera Narvekar

Dr. Narendra Shekokar

Dr. Ram Magrulkar

Dr. Aruna Gawade

Dr. Kiran Bhowmick

Prof. Khushali Deulkar

Dr. Chetashri Bhadane

Prof. Ruhina Karani

Prof. Pranit Bari

Time-Table Committee

Prof. Lakshmi Kurup

Prof. Deepika Dongre

Cultural Committee

Dr. Meera Narvekar

Prof. Sudhir Bagul

Placement Committee

Prof. Pankaj Sonawane

SAP Attendance

Prof. Khushali Deulkar

Prof. Lynette D'mello

Prof. Deepika Dongre

Internship Committee

Dr. Ram Mangrulkar

Sports Committee

Dr. Narendra Shekokar
Prof. Pankaj Sonawane

Alumni coordinator

Prof. Khushali Deulkar
Prof. Ruhina Karani

Stationary Incharge

Prof. Ashok Patade

Mentor Incharge

Prof. Sindhu Nair

Entrepreneurship Incharge

Dr. Ram Mangrulkar

Exam Coordinator

Prof. Ruhina Karani
Prof. Deepika Dongre

Lab Incharges

Dr. Kiran Bhowmick

Dr. Aruna Gawde

Dr. Chetashri Bhadane

Prof. Sindhu Nair

Prof. Ashok Patade

Dr. Pratik Kanani

Class Incharges

Prof. Pankaj Sonawane

Dr. Pratik Kanani

Dr. Kiran Bhowmick

Dr. Chetashri Bhadane

Prof. Lakshmi Kurup

Prof. Sindhu Nair

3. SPECIAL ACADEMIC PROGRAMME

3.1 5 day AICTE-ISTE approved STTP on Smart Computing conducted between 12th to 16th July 2021.

In today's "Connected" world, when distances are measured in terms of connections, smart computing becomes essential for improving communication. Smart computing is an amalgamation of hardware, software and networking that aims to provide faster and smarter systems. It aims at providing real-time awareness to help make intelligent decisions. The course intends to familiarise the participants with the data acquisition, data storage and data analytics required for smart computing. Acknowledging the same, we the department of Computer Engineering, D J Sanghvi college of Engineering, Mumbai has successfully organized AICTE-ISTE approved 1 Week Short Term Training Program (STTP) on "SMART COMPUTING".
Course Objectives

- To provide awareness of data acquisition required for smart computing.
- To understand the requirements of data storage and infrastructure necessary to support smart computing.
- To familiarise with the security vulnerabilities and their mitigation techniques in smart computing.
- To create awareness of the analytics that can be performed in smart computing. To provide insights on various applications of smart computing

The FDP was coordinated by Dr. Narendra Shekokar, Prof. Aruna Gawade and Prof. Kiran Bhowmick Computer Engineering, DJSCE, Mumbai.

INAUGURAL SESSION:

The inauguration of the programme was carried out in presence of:

- Dr. Hari Vasudevan , Principal,DJSCE
- Dr. Ashish Daptardar, Vice-Principal (Admin),DJSCE
- Dr.Manali Godse, Vice-Principal (Academics) ,DJSCE
- Dr. Meera Narvekar, HoD(Computer Engg. Dept), DJSCE
- Dr. Narendra Shekokar,FDP-Coordinator(Computer Engg. Dept), DJSCE

The total of 100 participants' registered for this FDP.

Principal and Vice-principals addressed participants about need of smart computing in current technology revolution.

TECHNICAL SESSIONS:

- **1st Day (12/07/2020) Session I and Session II:**

Topic: Smart sensors and Data aquisition

Speaker: Mr. Yadnesh Mohan Zagade,

Designation: Senior Research & Development Engineer C.E.O. & Founder- Tech Cryptors, Mumbai

Mr. Yadnesh covered various concepts related to smart sensors and data acquisition. The interesting part was the hands on session for creating circuits using tinker card. The main aim for it was to to highlight practical approach on how to do data acquisition from sensors.

- **2ndDay (13/07/2020) Session I and Session II:**

Topic: Data storage and infrastructure

Speaker: Mr. Nimish Somaiya

Designation: AVP, Reliance Industries Limited, Navi Mumbai

Mr. Nimish delivered a very detailed session on big data covering points like practical perspective of big data, dealing with big data, stream data processing. He also gave some of the practical examples of big data use cases. In afternoon session, he discussed about cloud services and features, challenges in cloud computing.

- **3rdDay (14/07/2020) Session I:**

Topic: Security concerns in smart computing

Speaker: Dr. Bernard Menezes

Designation: Professor, Indian Institute of Technology, Bombay

Dr. Bernard delivered a session where he focussed on various points like possible solutions for secure computing on cloud, computing on encrypted data, application specific homomorphic encryption and basics of secure enclaves. He also discussed some of the research topics and how to go ahead with it.

- **3rdDay (14/07/2020) Session II:**

Topic: Security issues in 5G technologies

Speaker: Dr. Sanjay Pawar, Principal

Designation: Usha Mittal Institute of Technology, Mumbai

Dr. Sanjay discussed various practical examples related to computing. How the term computing has evolved over the period of time. He focussed more on infrastructure of computing. Also, gave insights on expectations from networks and consumers. Issues challenges involved in mobile edge computing.

- **4thDay (15/07/2020) Session I:**

Topic: Data Science and analytics

Speaker: Dr. Amiya Kumar Tripathy

Designation: Professor, Don Bosco Institute of Technology, Mumbai

- **4thDay (15/07/2020) Session II:**

Topic: Data preparation and ML algorithms for smart computing

Speaker: Dr. Geetanjali Shinde

It was more of Interactive session on machine learning. Covered various topics related to machine learning and also highlighted areas where ML concepts and algorithms can be applied.

- **5thDay (16/07/2020) Session I:**

Topic: Smart Computing Applications

Speaker: Dr. Nilanjan Dey, Associate Professor

Designation: Department of Computer Science and Engineering, JIS University, Kolkata

Dr. Nilanjan delivered very detailed and informative session on Satellite imaging system. He covered various points like satellite image interpolation, segmentation, classification etc. Also, he focussed on deep learning and transfer learning.

- **5thDay (16/07/2020) Session II:**

Topic: Smart Computing Applications

Speaker: Dr. Parikshit Mahalle, HoD

Designation: Dept. of Artifical Intelligence and Data Science, Vishwakarma Institute of Information Technology, Pune

Dr.Parikshit gave detailed working of some of the examples where smart computing is widely applicable like medical Iot, Agriculture, and AI in armaments. He also discussed about some free softwares available for some of the applications like healthcare.

Valedictory:

The STTP was Concluded & Test was conducted by STTP Organizing Committee based on sessions covered during this 1 Week STTP program. Also, Valedictory function was conducted in the presence of Dr. Hari Vasudevan, Principal, Mr. Parikshit Mahalle (External Speaker), Dr. Meera Narvekar (STTP Convener & HOD Computer engg.), Dr. Narendra Shekokar (STTP Coordinator), STTP Organizing Committee Members were present along with the participants. The participants were delighted to share their views & were excited to be a part of the STTP.

STTP Organizing Committee, Department of Computer Engineering, D J Sanghvi College of Engineering would like to thank Chief Patron Hon. Shri Amrish R. Patel, President, SVKM, other patrons and Convenor Dr. Hari Vasudevan Principal, DJSCE for giving us an opportunity to organize

STTP on Smart Computing and for always providing such platforms to enhance our technical knowledge and skills.

Sharing some glimpses of STTP on smart computing.

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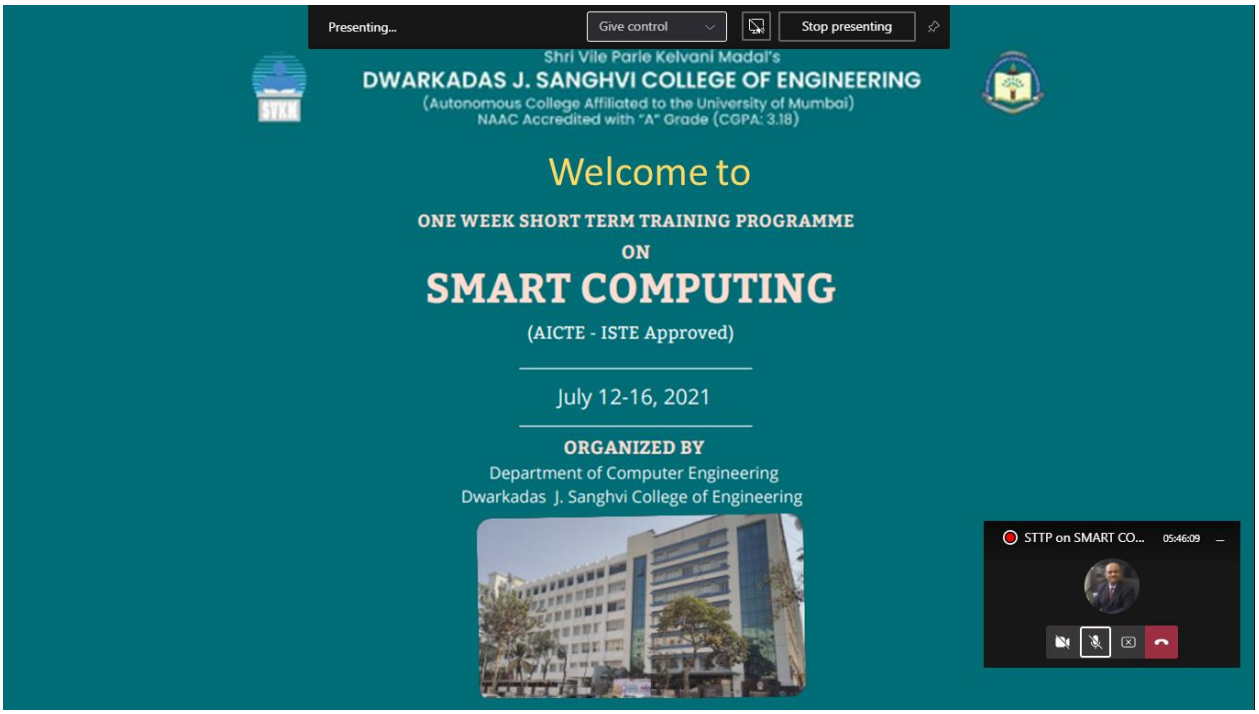

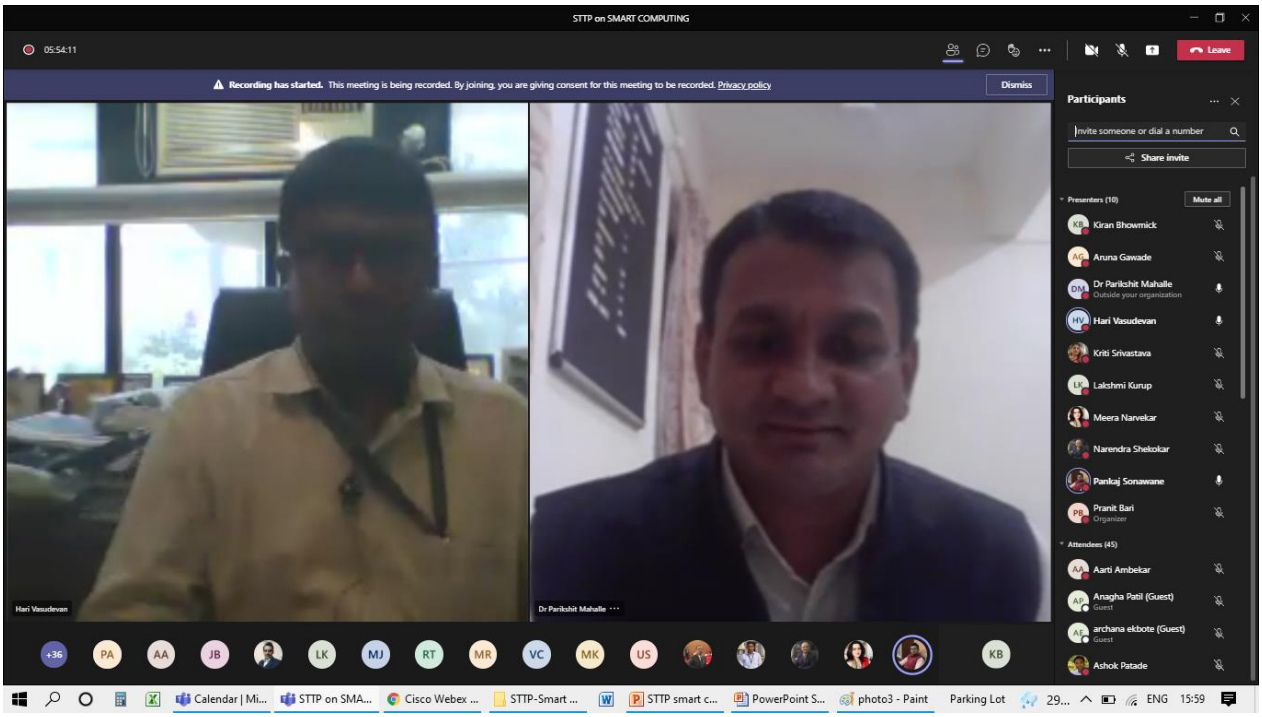

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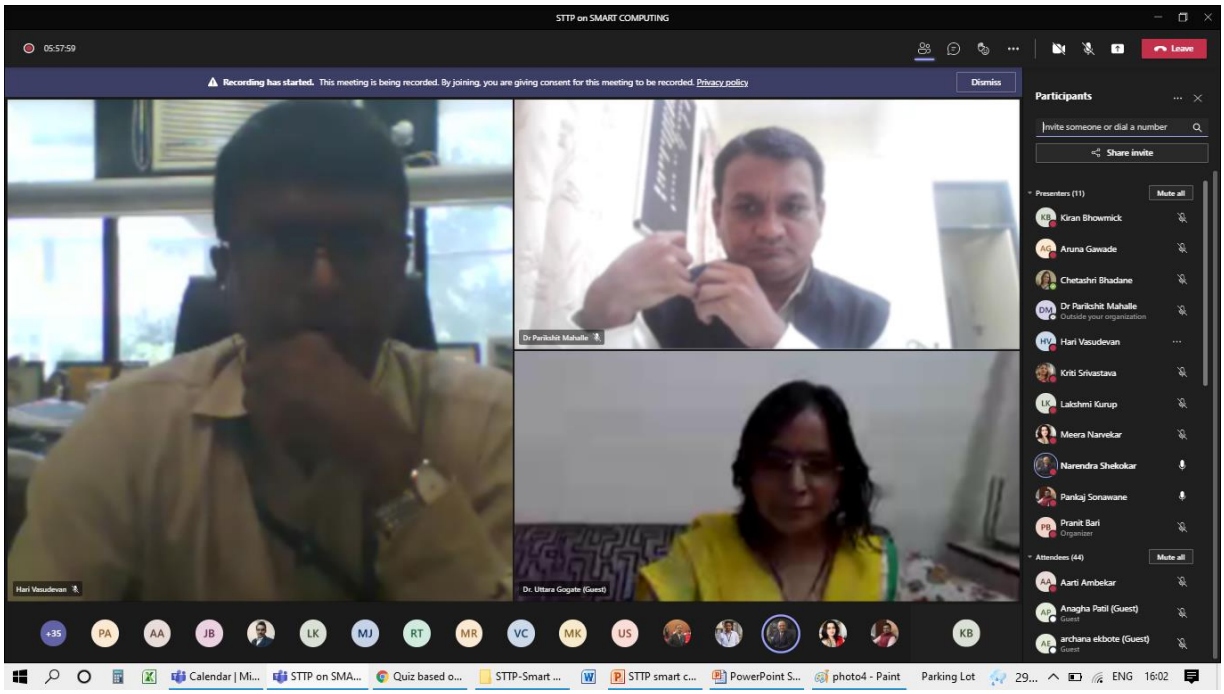

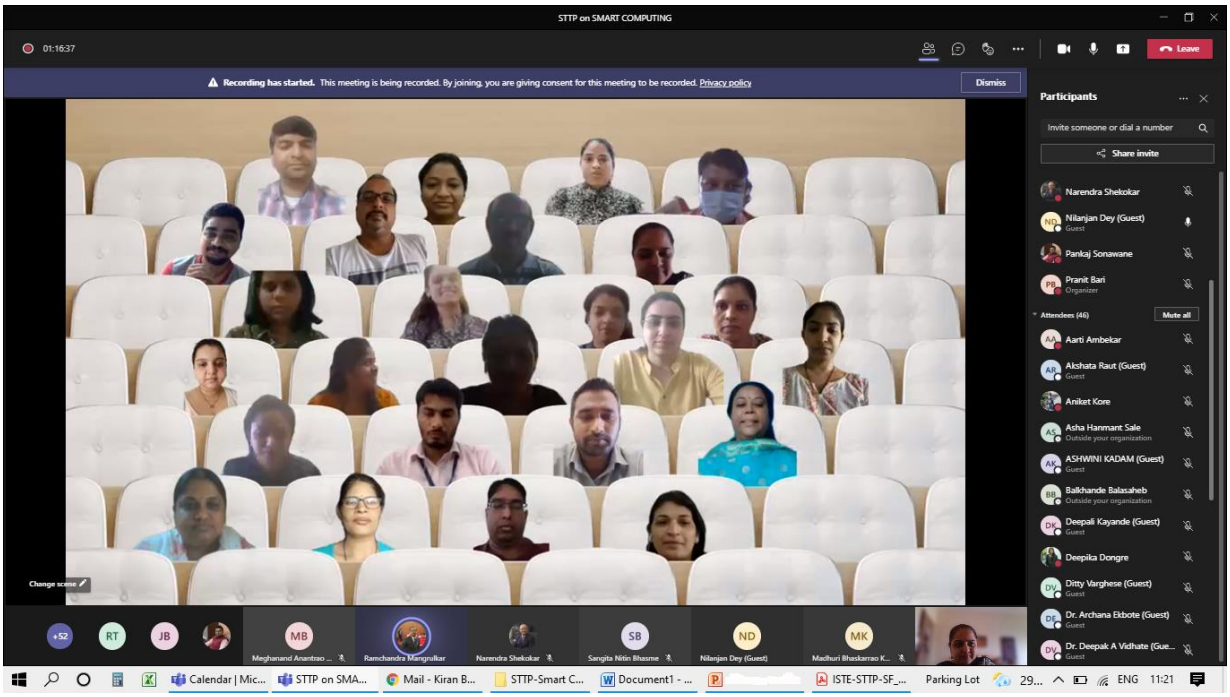

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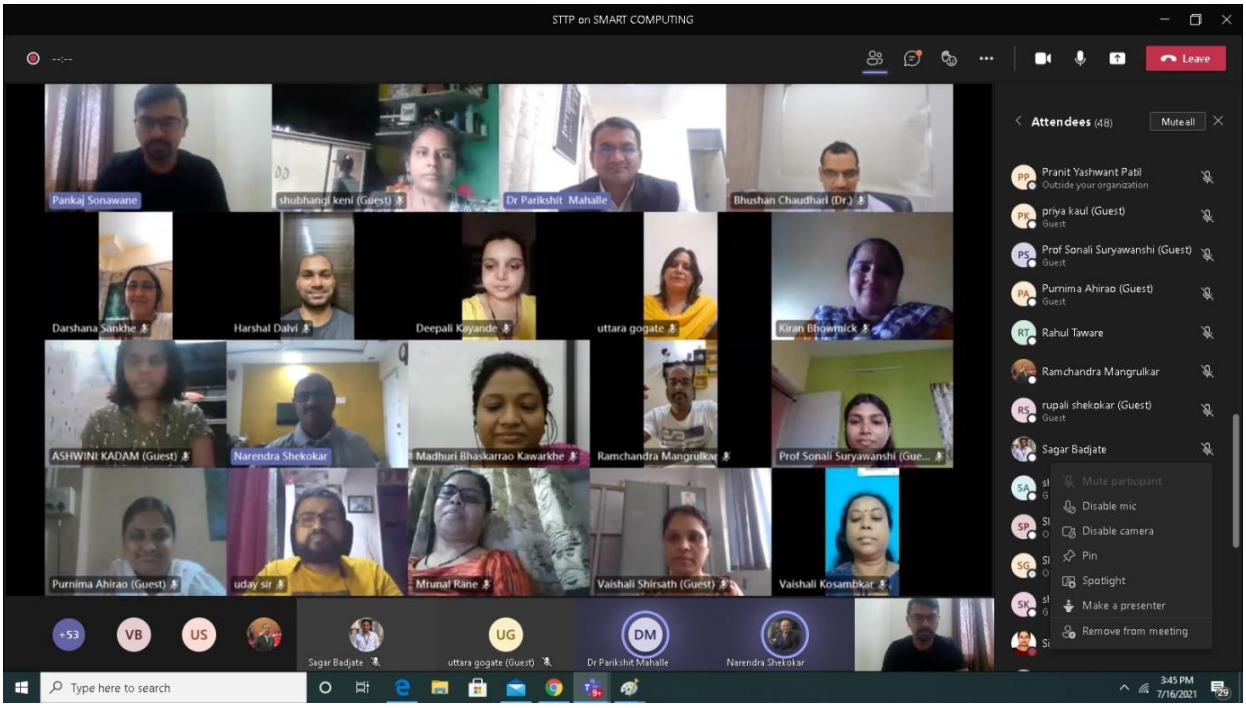

3.2 Webinar on "Educator Awareness session on Digital Age Innovation" organised on 12th August 2021

The webinar on **Educator Awareness session on Digital Age Innovation** was conducted on 12th August 2021. The webinar will focus on today's rising demand of Design Thinking and Digital Age Innovation that will help faculty make students ready for the Future. The intention of the webinar is to facilitate the faculty/educators to appreciate and understand innovation mind-set and creative problem solving.

Need of Webinar:

- Help students approach 21st century challenges leveraging a combination of CRITICAL, ANALYTICAL AND INTUITIVE APPROACH
- Guide students in today's VUCA environment by learning how to -TO-DEFINE, AMBIGUOUS &
- Learn how to develop EMOTIONAL & SOCIAL INTELLIGENCE amongst students
- Learn how to help students being FUTURE READY

Speaker: Mr. Pinaki Bhowmick

The speaker for the webinar is Mr. Pinaki Bhowmick, Founder, Dx & Beyond and an enthusiast design thinking practitioner and digital innovation-transformation expert with an overall experience of 22 years in the industry.

Participants: Faculty Members of any department Irrespective of your seniority, branch or specialization.

Total No. of Participants: 24

Outcome of Webinar: Faculty members will be able to

- Help students understand the context of Digital-age Innovation and the value of focusing on end users' unmet needs
- Help students to realise the need to combine Analytical and Intuitive thinking and Structured Innovation
- Help students understand how they could remain competitive and valuable in the new normal with a high degree of technology obsolescence.

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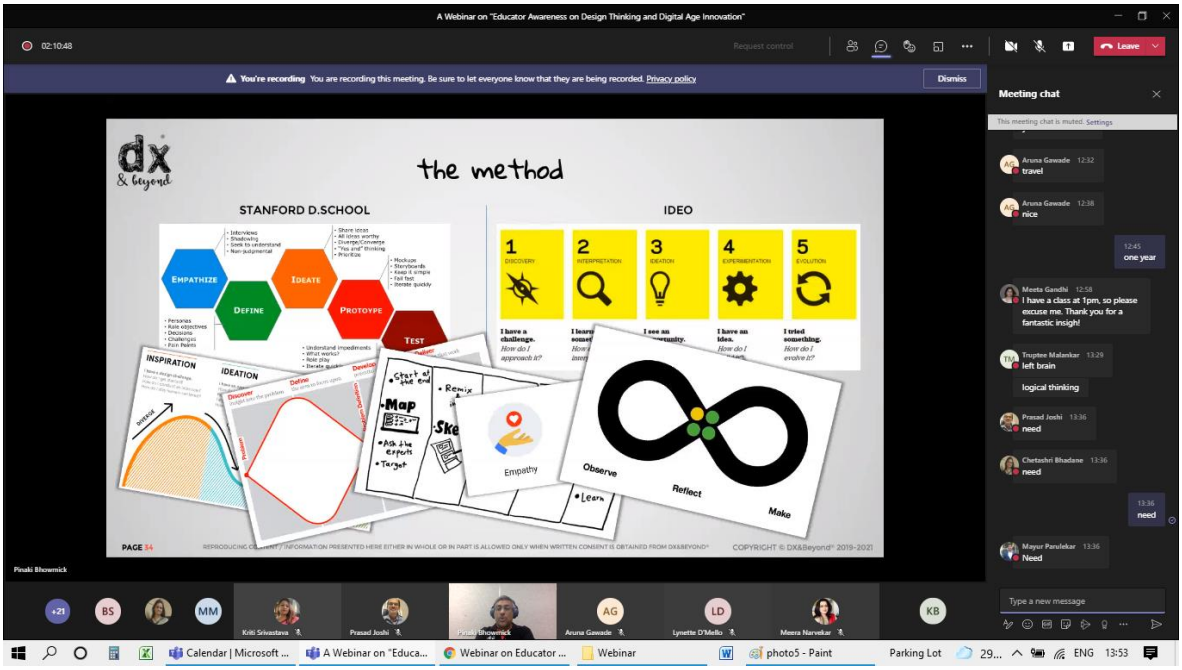

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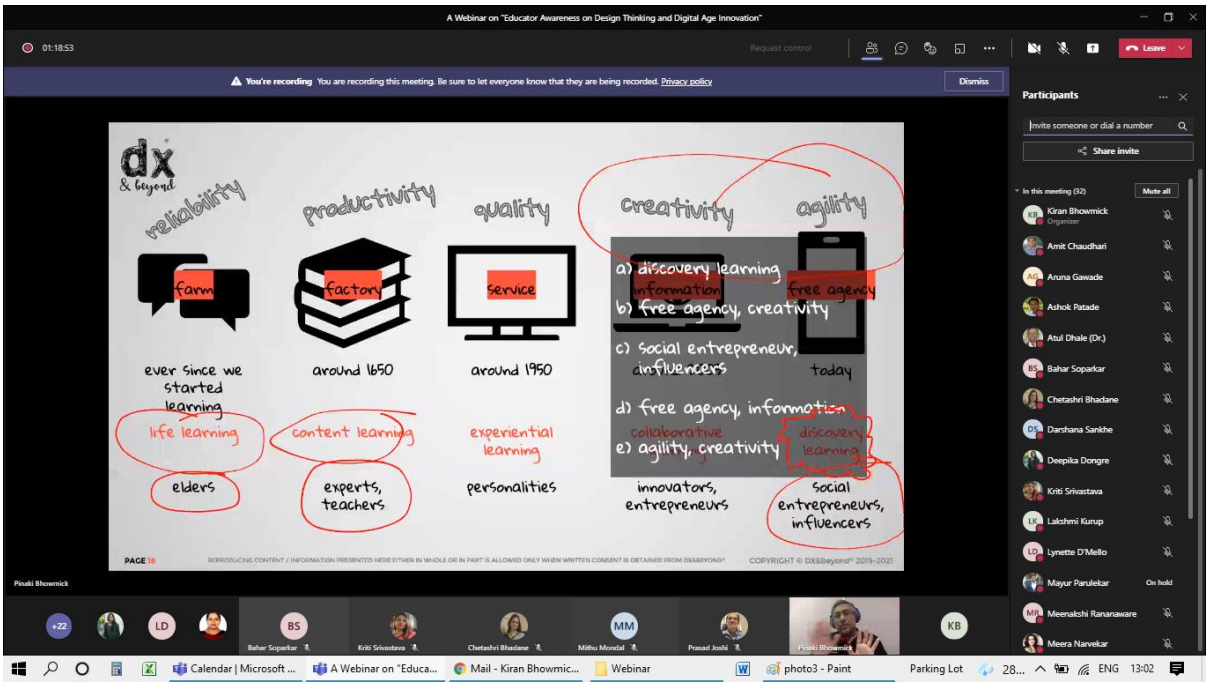

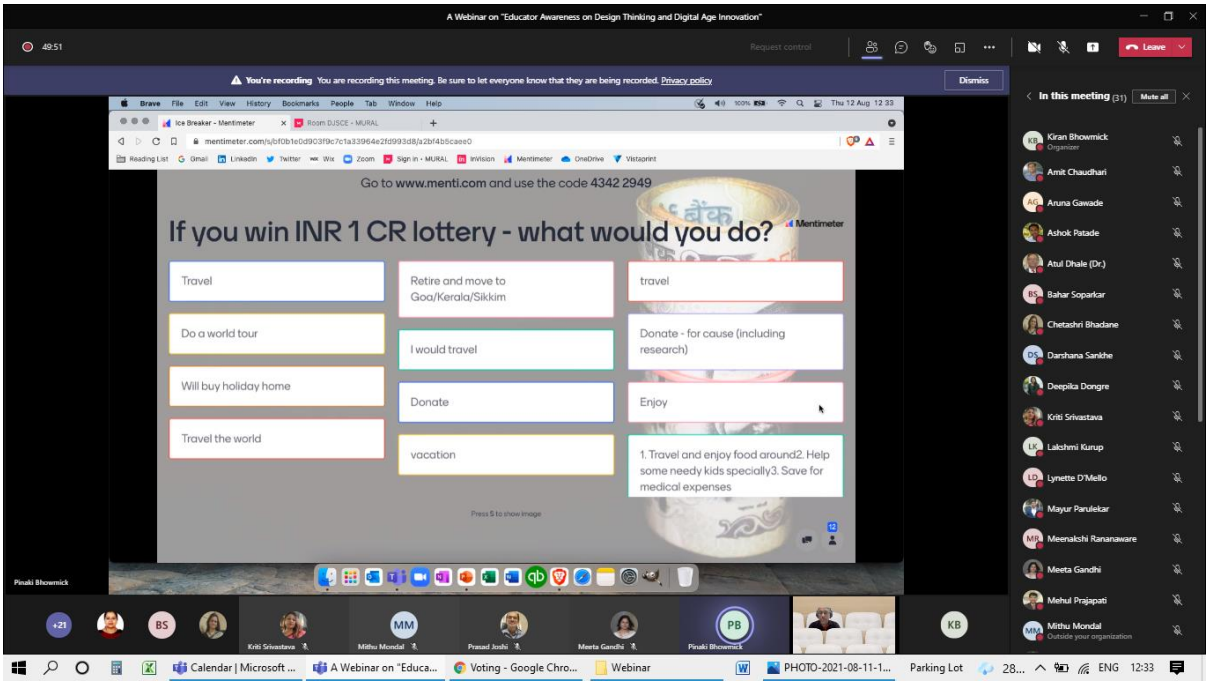

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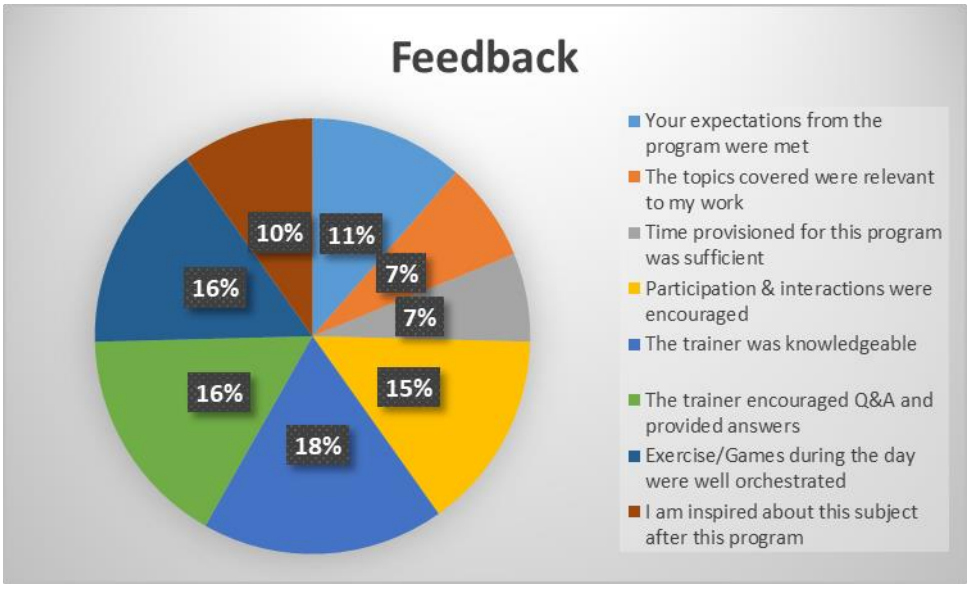
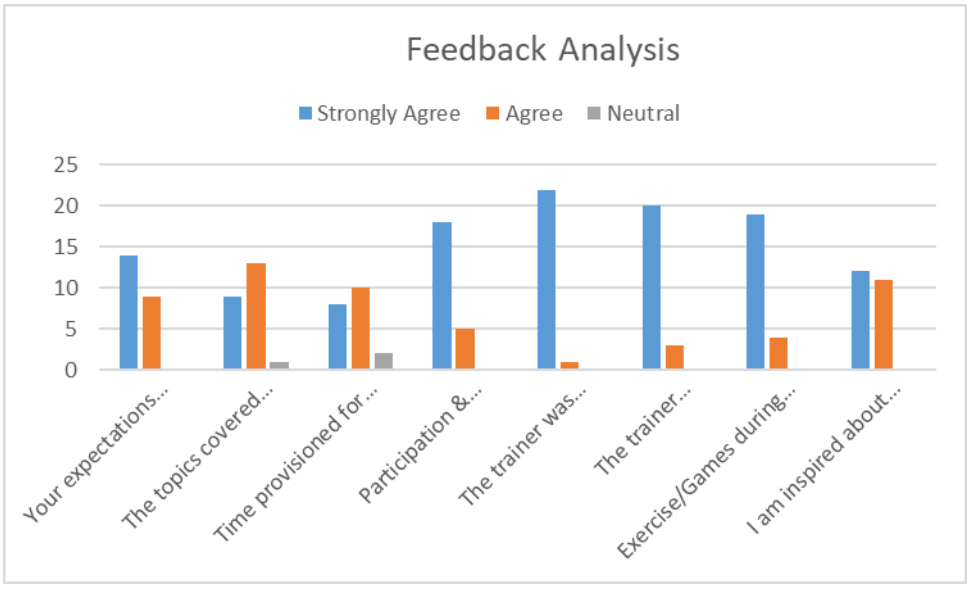
Feedback:





3.3 Webinar on "Technical Writing and Research Publication" organised on 6th October 2021

The webinar on **Technical Writing and Research Publication** was conducted on 6th October 2021.

Objective of Webinar:

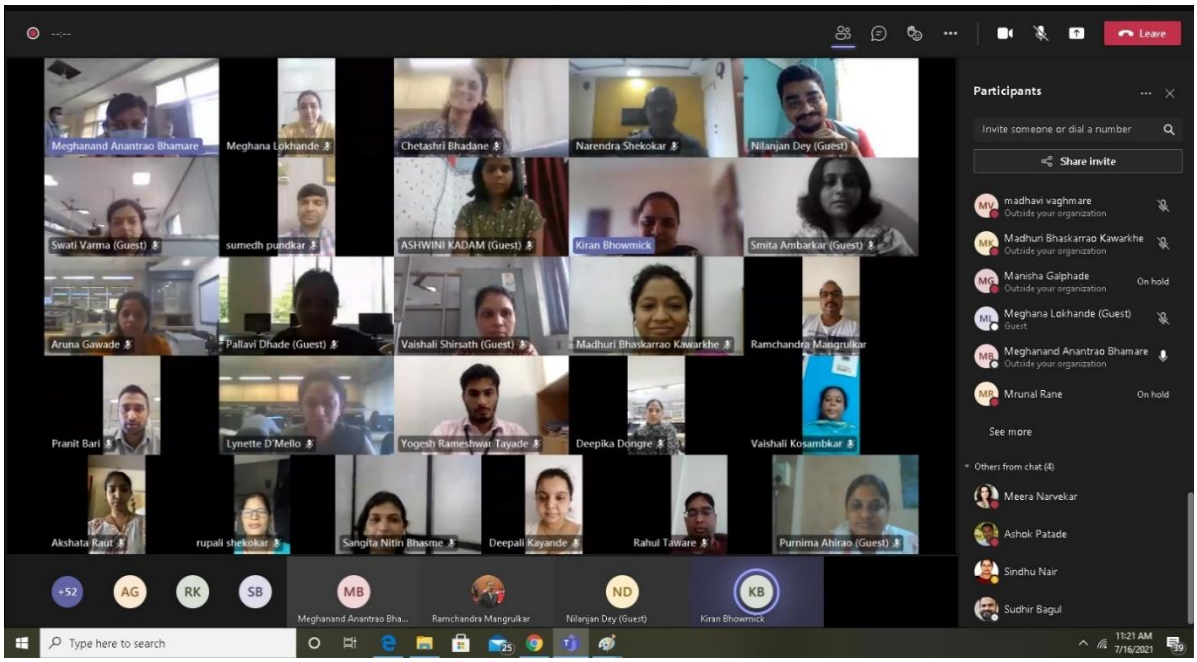
- Providing guidelines for writing a good technical paper.
- Discussion on identifying good publications to publish one's research work

Speaker: Dr. Nilanjan Dey

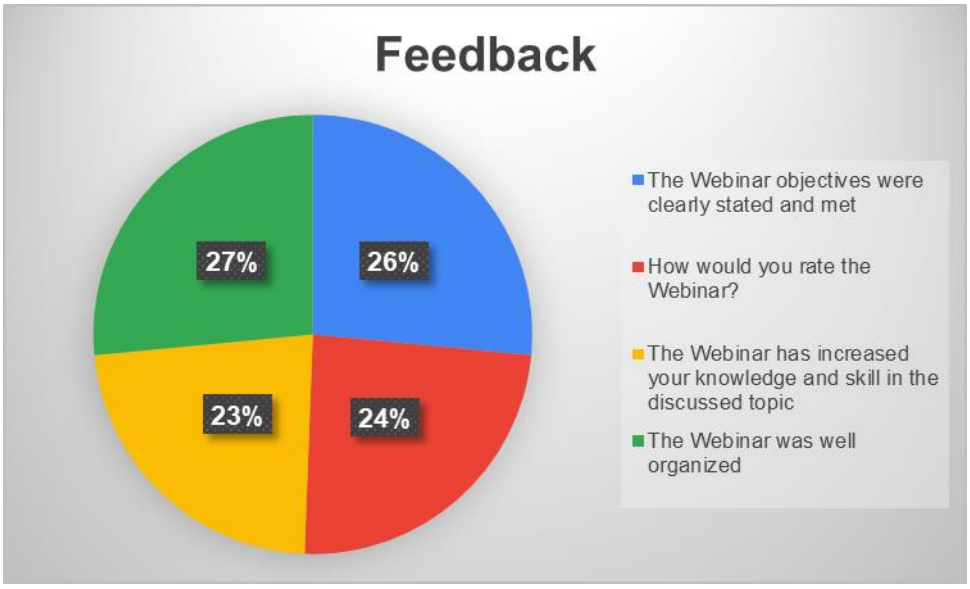
Associate Professor, Department of Computer Science and Engineering, JIS University, Kolkata. He has edited more than 85 books with Elsevier, Wiley, CRC press and Springer and published more than 300 papers. He has more than 12000 citations and an h-index of 51.

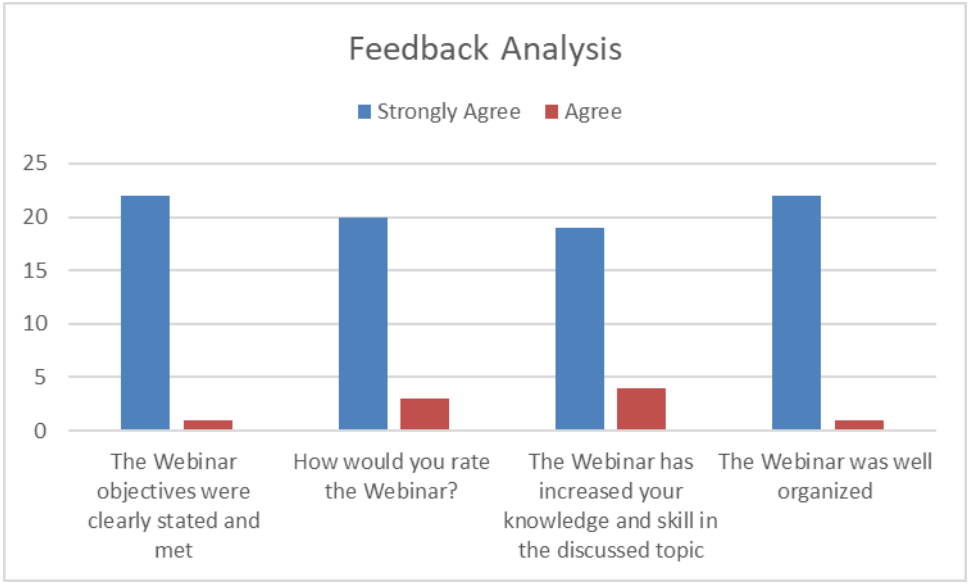
Participants: Faculty Members, Research scholars of any department.

Total No. of Participants: 23



Feedback:


Feedback
26%
24%
23%
27%
The Webinar objectives were clearly stated and met
How would you rate the Webinar?
The Webinar has increased your knowledge and skill in the discussed topic
The Webinar was well organized


Feedback Analysis
Strongly Agree
Agree
25
20
15
10
5
0
The Webinar objectives were clearly stated and met
How would you rate the Webinar?
The Webinar has increased your knowledge and skill in the discussed topic
The Webinar was well organized

4. FACULTY CONTRIBUTION

4.1 Faculty Publications: National / International Conference / Journal

Sr. No.	Name	Journal/ Conference	National / International	Title	Publication	Date
1.	Dr. Meera Narvekar	Journal	International	AI BASED TUTORING SYSTEM FOR ENGLISH PUNCTUATION: E-VAKYA	International Journal of Mechanical Engineering	Dec-21
2.	Dr. Ramchandra Mangrulkar	Journal	International	TaxoDaCML: Taxonomy based Divide and Conquer using machine learning approach for DDoS attack classification	International Journal of Information Management Data Insights	Nov-21
		Book	International	Design of Intelligent Applications Using Machine Learning and Deep Learning Techniques	Chapman and Hall/CRC	Aug- 21
		Chapter	International	Impact analysis of COVID-19 news headlines on global economy	Cyber-Physical Systems AI and COVID-19 - Academic Press	Oct- 21
		Chapter	International	Divide and Scramble – A Recursive Image Scrambling algorithm utilizing Rubik's Cube	2021 International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT)	Aug- 21

		Chapter	International	A Hybrid Approach for Landmark Recognition using Deep Local Features and Residual Network-50- ITM Web of Conferences 40, 02001 (2021)	International Conference on Automation, Computing and Communication 2021 (ICACC-2021) - EDP Sciences	Aug-21
		Chapter	International	HealthDesk-A One Stop Health Application Using Machine Learning Techniques- ITM Web of Conferences 40, 02001 (2021)	International Conference on Automation, Computing and Communication 2021 (ICACC-2021) - EDP Sciences	Aug-21
		Chapter	International	Comparative Analysis of Deep Learning Techniques to detect Online Public Shaming - ITM Web of Conferences 40, 02001 (2021)	International Conference on Automation, Computing and Communication 2021 (ICACC-2021) - EDP Sciences	Aug-21
3.	Dr. Aruna Gawde	Conference	International	Park it: Intelligent Parking System	2021 4th Biennial International Conference on Nascent Technologies in Engineering (ICNTE)	July- 21
4.	Dr. Nilesh Patil	Book	National	Data Mining & Business Intelligence	Tech Neo Publications	Dec- 21
		Book	National	Wireless Technology	Tech Neo Publications	Dec- 21

5.	Dr. Kiran Bhowmick	Conference	International	Data-driven Preprocessing Techniques for Early	2021 Fourth International Conference on Electrical, Computer and Communication Technologies (ICECCT)	Nov-21
6.	Lakshmi Kurup	Journal	International	AI BASED TUTORING SYSTEM FOR ENGLISH PUNCTUATION: E-VAKYA	International Journal of Mechanical Engineering	Dec-21
7.	Pranit Bari	Chapter	International	Application of deep learning in cartography using UNet and generative adversarial network	Design of Intelligent Applications Using Machine Learning and Deep Learning Techniques - Chapman and Hall/CRC	Aug- 21
		Chapter	International	Speakql natural language to sql - ITM Web of Conferences 40, 02001 (2021)	International Conference on Automation, Computing and Communication 2021 (ICACC-2021) - EDP Sciences	Aug-21
		Chapter	International	Successive Image Generation from a Single Sentence- ITM Web of Conferences 40, 02001 (2021)	International Conference on Automation, Computing and Communication 2021 (ICACC-2021) - EDP Sciences	Aug-21

8.	Lynette Dmello	Conference	International	Visual and Auditory Assistant for people with various cognitive impairments	Intelligent Communication and Smart Electrical Systems	Sept- 21
9.	Pankaj Sonawane	Conference	International	Early Sepsis Detection using Machine Learning and Neural Networks	2nd Global Conference for Advancement in Technology (GCAT)(IEEE)	Oct- 21

4.2 Interaction of Faculty with Outside World

Sr.No	Name	Activity
1.	Dr. Ram Mangrulkar	Conducted a Hands-on Session on, "Applications of Google's DialogFlow in Knowledge Base" in AICTE ATAL Academy sponsored Online Short-Term Training Programme (STTP) on "Recent Advancement in AI and Machine Learning" during 8th November 2021 to 13th November 2021 organized by Dept. Of CSE, Asam Kaziranga University, Asam.
		Conducted a Hands-on Session on "Power Automate for Everyone" in November 2021 Tech Series organized by SVKM (HR-Training) on 15th November 2021

4.3 Seminars/Workshops/Conferences/FDP/STTP/Expert talk organized

Sr. No.	Name	STTP / Workshop / Seminar Details
1.	Dr. Kiran Bhowmick	Organized a webinar for faculty on "Technical Writing and Research Publication" Speaker: Dr. Nilanjan Dey No. of Participant: 34 Venue: Online Date: 6th October 2021
2.	Dr. Kiran Bhowmick	Educator Awareness session on Digital Age Innovation (Webinar) Speaker: Mr. Pinaki Bhowmick No. of Participant: 32 Venue: Online Date: 12th August 2021

4.4 Seminars/Workshops/Conferences/FDP/STTP/Expert talk attended

Sr. No.	Name	Activities
1.	Dr. Aruna Gawde	1. Completed NPTEL course on: Introduction to Operating Systems 2. Completed Inpods certification on ADVANCED CONCEPTS OF OUTCOMESBASED EDUCATION
2.	Dr.Ramchandra Mangrulkar	1. Attended one-week AICTE Sponsored Online Short-Term Training Program (STTP) on "Recent Advancement in AI and Machine Learning" 2. One Week Refresher Course on "Blockchain Technology and Its Uses"
3.	Dr. Chetashri Bhadane	1. Completed 4 week Coursera Course on "AI for Everyone" offered by Deeplearning.ai
4.	Ruhina Karani	1. Completed 4 week Coursera Course on "AI for Everyone" offered by Deeplearning.ai
5.	Lynette D'Mello	1. Completed 4 week Coursera Course on "AI for Everyone" offered by Deeplearning.ai 2. Successfully Completed NPTEL Course on "Problem solving through Programming in C"
6.	Deepika Dongre	1. Completed 4 week Coursera Course on "AI for Everyone" offered by Deeplearning.ai
7.	Pankaj Sonawane	1. Attended one-week AICTE Sponsored Online Short-Term Training Program (STTP) on "Recent Advancement in AI and Machine Learning" 2. AICTE Approved 5 Day STTP on "Role of Teacher in Creating Effective Learning Environment for Students".

8.	Pranit Bari	1. Attended one-week AICTE Sponsored Online Short-Term Training Program (STTP) on "Recent Advancement in AI and Machine Learning" 2. Successfully Completed NPTEL Course on "Problem solving through Programming in C" 3. Successfully Completed NPTEL Course on "Programming Data Structures and Algorithms in Python"
9.	Aniket Kore	1. Completed 12 week NPTEL course on Programming in JAVA 2. Completed 12 week NPTEL course on Problem solving through programming in C

5. STUDENTS'ACHIEVEMENTS

S.E.

Sr. No.	SAP ID	Name	Achievements
1	60004200137	ROSITA DMELLO	First prize in the ACM Digihunt 2.0 event held online
2	60004200149	VARUN AIYAR	Won a Game Jam by Unit2 Games and received a cash prize of 500$

T.E.

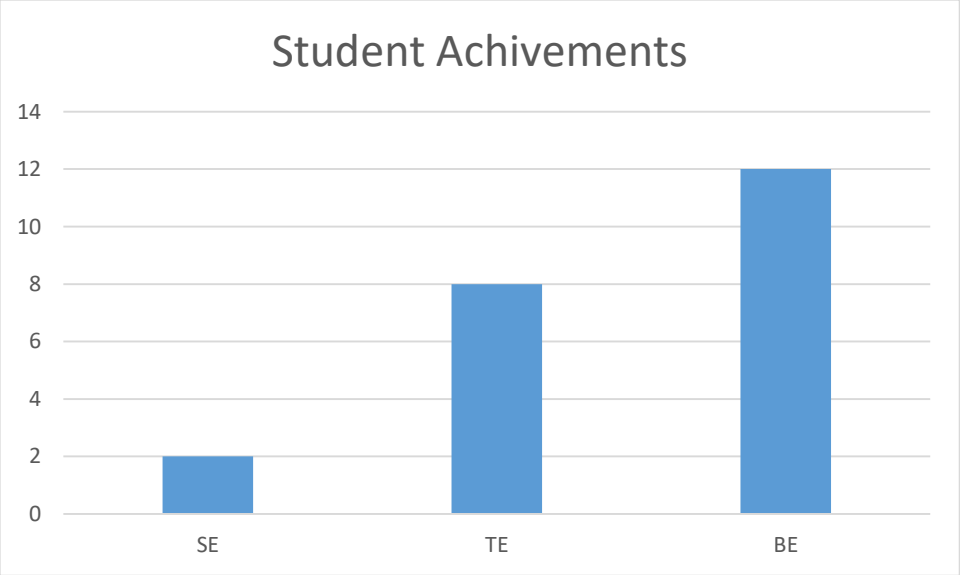
Sr. No.	SAP ID	Name	Achievements
1	60004190078	PALKA DHIRAWANI	1st place - Re-iterate Design hackathon conducted by IxDA Vellore
2	60004190087	RAJ SANGHAVI	1st Runner Up at TVS Credit E.P.I.C. Season 3 - IT Challenge
3	60004190055	JIGAR SHAH	TVS Credit Epic IT challenge 3 (1st Runner up)
4	60004190012	AMAY GADA	Binary and Multiclass classification using a deep fusion network - ICCCES 2021
5	60004190107	SHUBH NISAR	Title :- Waste Segregation into Biodegradable & Non-Biodegradable using Transfer Learning Event:- International Conference on Advances in Computer Engineering & Communication Technology [ICACET-2021] Paper ID:- 170
6	60004190126	YASH JHAVERI	
7	60004190114	TANAY NAIK	
8	60004190113	TANAY GANDHI	

B.E.

Sr. No.	SAP ID	Name	Achievements
1	60004180125	YASHODHAN JOSHI	Successfully obtained a Copyright under Indian Law on '8086-Emulator' Registration Number:SW-15066/2021
2	60004180127	YATHARTH VYAS	
3	60004180110	TEJAS GHONE	
4	60004180119	VATSAL SONI	
5	60004180127	YATHARTH VYAS	Simple Network Simulator : Web based simulator for creating and visualizing Computer Networks and related algorithms
6	60004180110	TEJAS GHONE	
7	60004180119	VATSAL SONI	
8	60004180017	DEEP GANDHI	IndicFed: A Federated Approach for Sentiment Analysis in Indic Languages
9	60004180017	DEEP GANDHI	Published a book chapter with title Federated Learning for Brain Tumor Segmentation on the Cloud
10	60004180065	NIRALI PAREKH	Automatic Sleep Stage Scoring on Raw Single-Channel EEG: A Comparative Analysis of CNN Architectures
11	60004180065	NIRALI PAREKH	TaxoDaCML: Taxonomy based Divide and Conquer using Machine Learning Approach for DDoS Attack Classification
12	60004180065	NIRALI PAREKH	Text Style Transfer: A Comprehensive Study on Methodologies and Evaluation

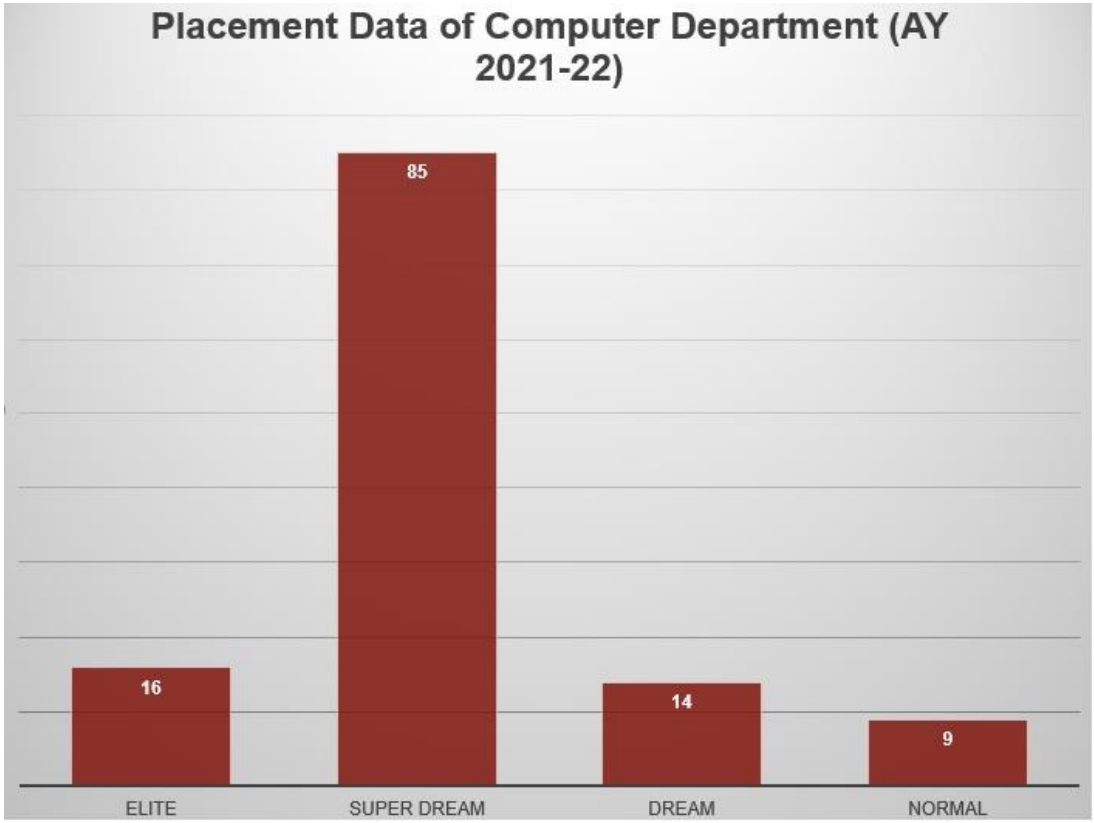
STUDENTS COUNT

Sr. No.	Class	No of students
1	SE	2
2	TE	8
3	BE	12



Student Activities Analysis

6. PLACEMENT DATA

Sr. No.	Name of the Company	Total Package in LPA	Total Number of Students Placed
1	Amazon	28	3
2	Morgan Stanley	26	3
3	Google	34	1
4	Goldman Sachs	21	1
5	Cactus Communication	20	2
6	MSCI	19	4
7	iRage Capital Broking	16	2
8	Samsung R&D	14.5	3
9	Axxela	14	1
10	JP Morgan Chase	14	22
11	Enfusion	13.36	1
12	ZS Associates	12.8	5
13	Dolat Capital	12.25	2
14	Cimpress	12	9
15	Accolite Digital	11	9
16	Forcepoint	11	2
17	ISSGovernance	10.3	4
18	Jio Saavan	10	1
19	Think 360	9.5	4
20	Infosys Dream	9.25	1
21	Carwale	9	2
22	Falkonry	9	2
23	Interactive brokers	9	1
24	RBL	9	1
25	Quantiphi	8.5	7
26	Oracle	8.3	3
27	Delhivery	8	1
28	Capgemini 7.5	7.5	1
29	MuSigma	7.5	2
30	TCS Digital	7.3	1
31	L&T Limited	6.75	1
32	LTI level 2	6.5	1
33	AMDOCS	6.25	2
34	Bill Desk	6	1
35	LTFS	6	1

36	NSEIT	6	1
37	Zeus learning	6	1
38	Niveus Solutions	5.75	1
39	Citius Technologies	5.5	1
40	Duck Creek	5.5	1
41	LTI level 1	5	1
42	Deloitte	4.3	2
43	IBM	4.25	1
44	Accenture	4.2	2
45	Infosys	3.6	3
46	TCS Ninja	3.6	2
47	TATA Elxsi	3.5	1