2- Day Faculty Development Programme on "VLSI Design for Signals and Systems"

The Two-Day Faculty Development Programme (FDP) on "VLSI Design for Signals and Systems" was organized by Assam Science and Technology University in collaboration with IIT Guwahati under TEQIP-III held on February 28-29, 2020 at IIT Guwahati. A total of 36 participants from various affiliated colleges including participants of IIT Guwahati and GUIST, Guwahati registered in the FDP. The following were the Resource persons/Experts invited for the FDP:

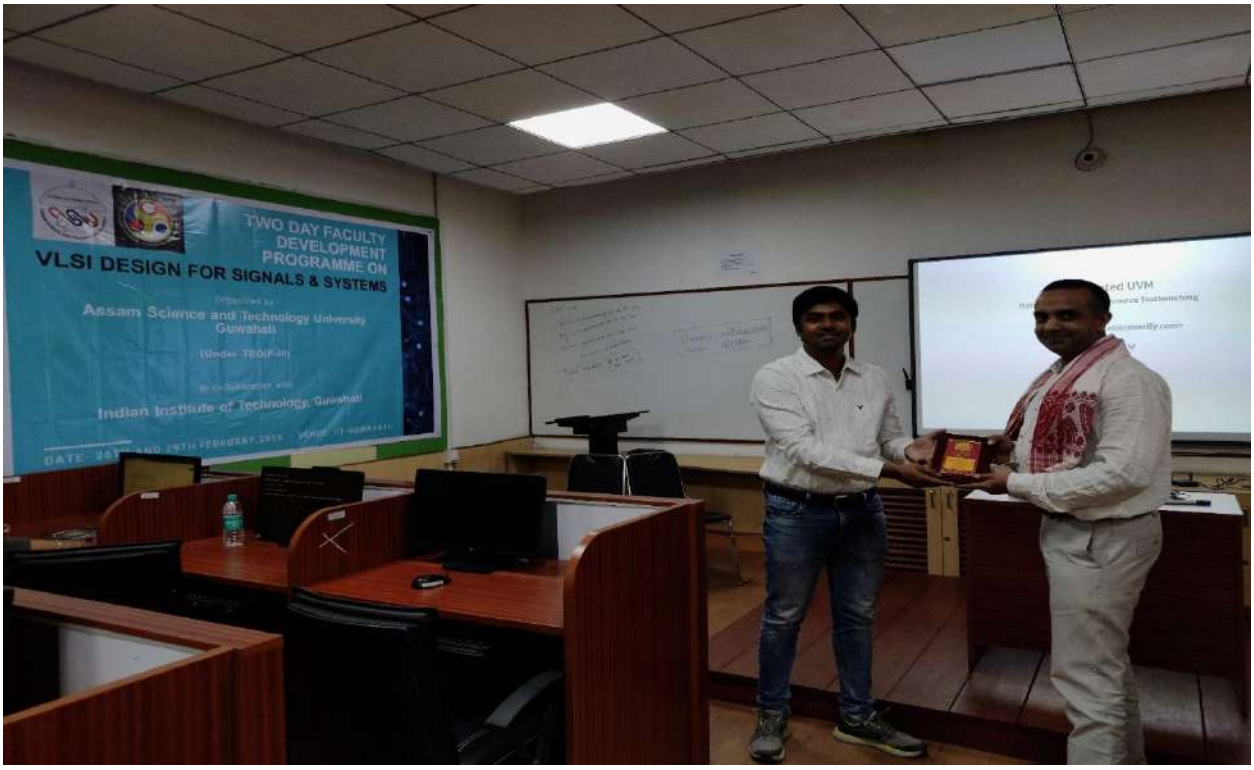
Sl.No.	Name of the Resource Person	Designation	Title of the Talk	Date of the Talk
1	Prof. Sudeb Dasgupta	Head, Deptt. of ECE, IIT Roorkee	Low power Design Techniques for SoC	28/02/2020
2	Dr. Aryabartta Sahu	Associate Professor, Deptt. of CSE, IIT Guwahati	Accelerated Image and Signal Processing	28/02/2020
3	Dr. Shree Prakash Tiwari	Associate Professor, Deptt. of EE, IIT Jodhpur	Devices for Flexible Systems	28/02/2020
4	Mr. Kunal Ghosh	Director, VLSI System Design, Bangalore	Transforming the Silicon Industry Through Open Source (Two Sessions)	28/02/2020 and 29/02/2020
5	Mr. Arvind Srivastava	Director, Synapse Techno Design Innovations Private Limited, Bangalore	VLSI Design – Smart SSD Controller	29/02/2020
6	Mr. Puneet Goel	CTO, Coverify Systems Tehnology, Gurugram	Accelerated UVM	29/02/2020

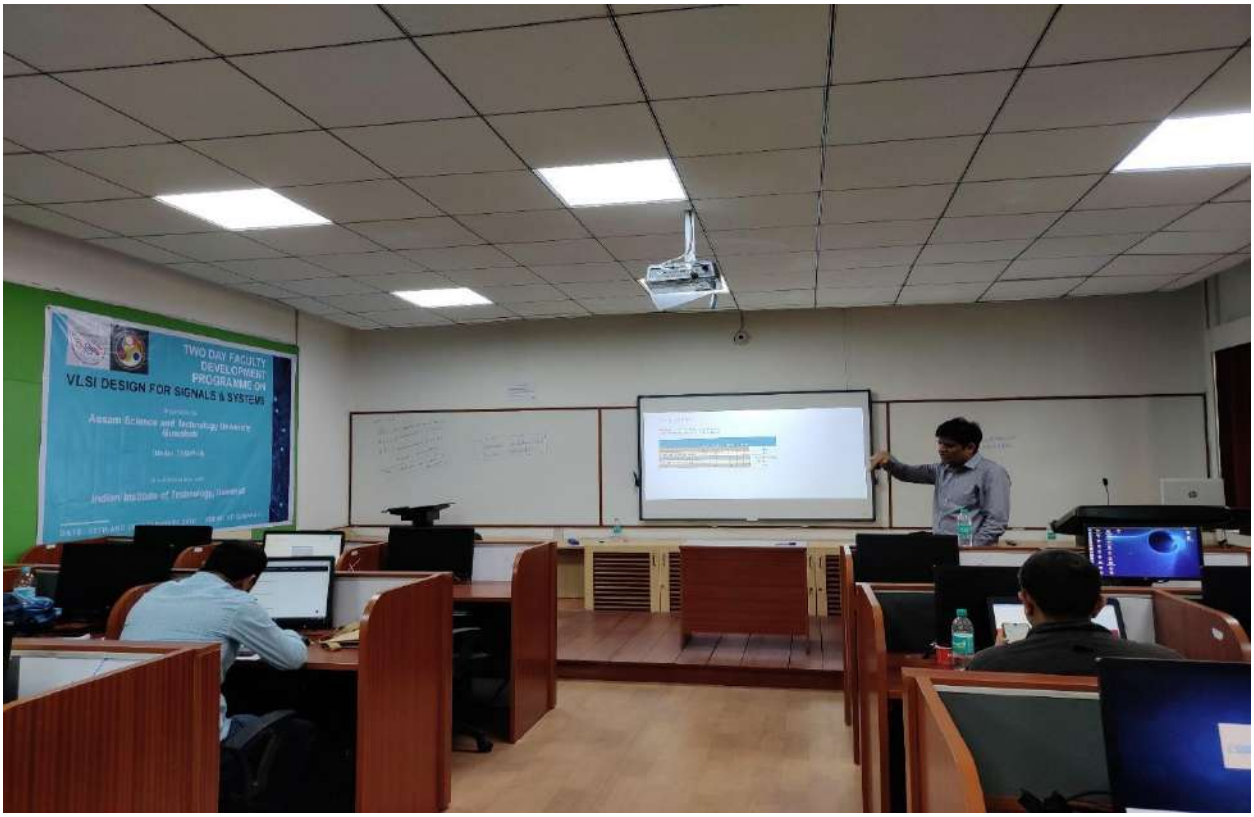
There was all total 7 (seven) Technical sessions in the program. Two Technical session was followed by Hands on Session which the participants were exposed to the practical aspects of the talks. The feedback received from the participants were quite satisfactory and the participants also suggested to conduct such programme which benefits them a lot. The Certificates were distributed to the participants at the end of the Programme on 29/02/2020 by the Resource persons along with the Academic Registrar, Assam Science and Technology University. The Programme Director of the FDP was Dr. Gaurav Trivedi, Deptt. of EEE, IIT Guwahati and the Programme Co-Director of the FDP was Dr. Hanumant Singh Shekhawat, Deptt. of EEE, IIT Guwahati.

The Programme ended with a vote of thanks from Dr. B.R. Phukan, Academic Registrar, ASTU and Dr. Hanumant Singh Shekhawat, Deptt. of EEE, IIT Guwahati.


DEVELOPMENT
PROGRAMME ON
VLSI DESIGN FOR SIGNALS & SYSTEMS

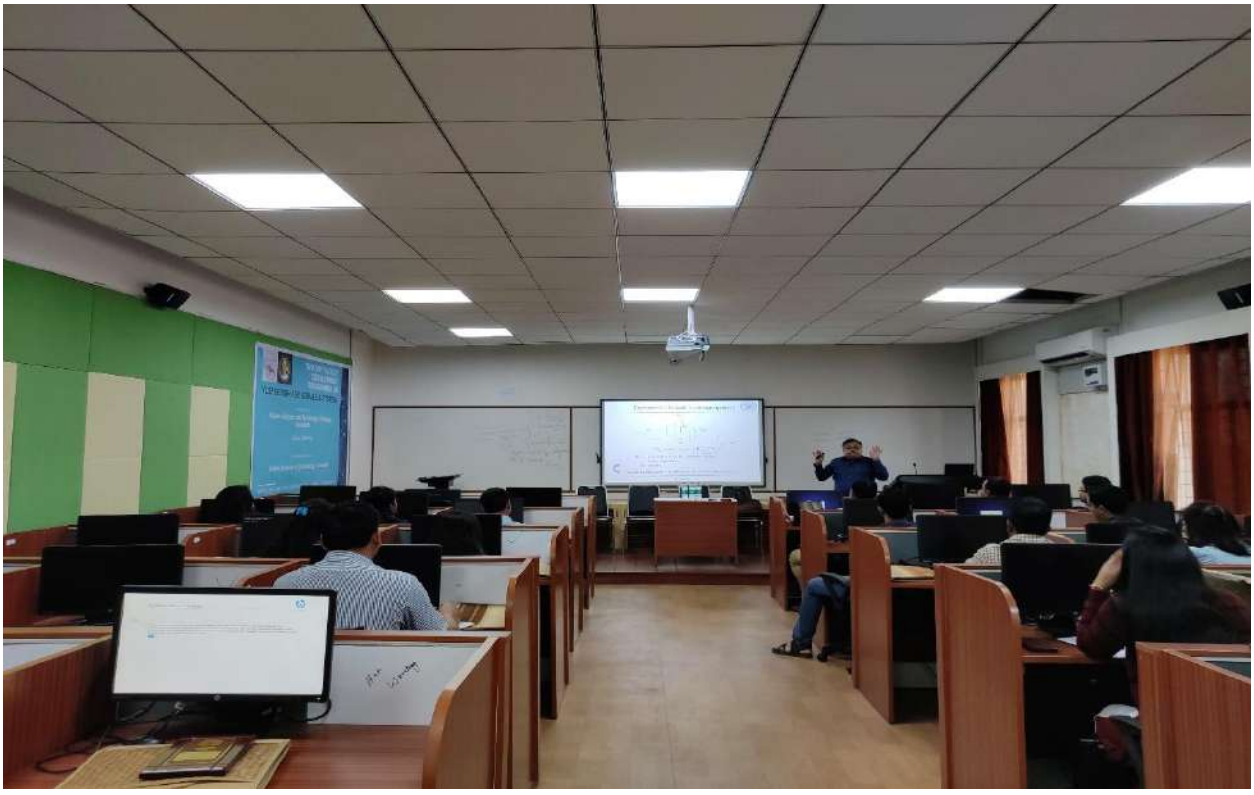

TWO DAY FACULTY
DEVELOPMENT
PROGRAMME ON
VLSI DESIGN FOR SIGNALS & SYSTEMS
Organized by
Assam Science and Technology University


TWO DAY FACULTY
DEVELOPMENT
PROGRAMME ON
VLSI DESIGN FOR SIGNALS & SYSTEMS
Assam Science and Technology University
Guwahati
Indian Institute of Technology, Guwahati


TWO DAY FACULTY
DEVELOPMENT
PROGRAMME ON
VLSI DESIGN FOR SIGNALS & SYSTEMS


TWO DAY FACULTY DEVELOPMENT PROGRAMME ON
VLSI DESIGN FOR SIGNALS & SYSTEMS
Assam Science and Technology University Guwahati
Indian Institute of Technology, Guwahati
Small Scale Accelerated Compute System
Processor with GPU and AVX
Memory is shared, Load to AVX register, do the Ops
JPEG/MPEG uses AVX, GPU
Suitable for general purpose


TWO DAY FACULTY
DEVELOPMENT
PROGRAMME ON
VLSI DESIGN FOR SIGNALS & SYSTEMS
Assam Science and Technology University
Guwahati
Indian Institute of Technology, Guwahati



A Report on Short Term Course on

Material Characterization and Tribology

Organised by

Assam Science and Technology University

Under TEQIP-III

In association with

Department of Mechanical Engineering,

Assam Engineering College.

Date: 2nd – 6th March 2020

Venue: Seminar Hall, ASTU

A one-week short time course on material Characterization and Tribology was organised by Assam Science and Technology University under TEQIP-III from 2nd March to 6th March 2020. Materials characterization refers to the broad and general process by which a material's structure and properties are probed and measured. It is a fundamental process in the field of materials science and engineering, without which no scientific understanding of engineering materials could be ascertained. There is always a need for better & efficient materials with enhanced mechanical and tribological properties for replacing conventional materials since even a slight improvement by tailoring the properties and also reducing energy and material loss due to friction and wear can reap enormous societal and economic benefits. Tribological is an interdisciplinary subject which contributes to every facet of daily starting from friction in living cell to friction in engine component. The understanding of tribological principles and their application has vast practical importance for optimum design, operation and maintenance of tribo-systems. In order to make a correlation between properties of the materials and its application, suitable characterization techniques are essential. A proper knowledge of tools and techniques for material processing and characterization helps in performing in-depth research in the field material characterization and Tribology.

Keeping in view the importance of material processing and Tribology, the main objective of this short term course is to provide participants an opportunity to learn and discussing the fundamentals of material processing and characterization, and the recent developments in these areas.

Faculty and research scholars from Assam Engineering College and Golaghat Engineering College attended the short term course. Prof. P.S. Robi, Deputy Director, IITG, Prof. S.K. Kakaty, Mechanical Engineering, IITG, Mr. Gawaikarys Director Metatech Industries, Pune, Dr. Niharendu Saha Mechanical Engineering, Assam Engineering College, Guwahati, Dr. Sidananda Sarma, Department of Physics IIT Guwahati, Dr. Debashish Choudhury, IASST, Guwahati, Dr. Shubrajit Bhaumik, SRM Institute of Science and Technology, Chennai, Prof. Prasun Chakraborty, Mechanical Engineering, NIT Agartala, Prof. S. Senthilvelan, Mechanical Engineering, IITG and Dr. Anil Bora, Mechanical Engineering, Assam Engineering College, Guwahati delivered expert lectures. There was also hands on training in the labs of CRH (ASTU), SAIF (GU) and IASST.

ASSAM SCIENCE AND TECHNOLOGY UNIVERSITY

One week short term course
On
Manufacturing Characterisation and Tribology

UNDER TEQIP-III
March 2nd-6th, 2020

APPLICATION FORM

1. Name (Block letters):
   .....
2. Designation:.....
3. Department.....
4. Institution/Organization:
   .....
5. Address for communication:
   .....
   .....
   .....
6. Gender:.....
7. Category:.....
8. Mobile No.....
9. Email id:
   .....

Signature of the participant

ORGANISING COMMITTEES

CHIEF PATRON

Prof. Dhiraj Bora, Vice Chancellor, ASTU

ADVISORY COMMITTEE

Dr. Nripen Das, Registrar, ASTU

Dr. B. R. Phukan, Academic Registrar &TEQIP Coordinator, ASTU

Dr. A.K. Baruwa, Academic Consultant, ASTU

PROGRAM COORDINATORS

Dr. Anil Bora, Faculty, AEC

Mr. Monoj Baruah, Faculty, ASTU

Mr. Nabajit Dev Choudhury, Faculty, ASTU

FINANCIAL ADVISORY COMMITTEE

Mr. Debajyoti Goswami,

Finance and Accounts Officer & Nodal officer Procurement, TEQIP-III, ASTU

Mrs Pingki Sarma,

Nodal officer Finance, TEQIP-III

MEMBERS

Dr. Bharat Kakati
Dr. Plaban Bora
Dr.Tapan Rajbongshi
Dr. Sanghita Dutta
Mr. Rajib Lochan Pathak
Mr. Maharanav Bhattacharya
Mr. Nilam Pathak
Miss Hemagni Deka
Mr. Basanta Barman
Mr. Subhash Basistha

ADDRESS FOR CORRESPONDENCE

Mr. Nabajit Dev Choudhury
Contact number: 9954077964
Mr. Monoj Baruah
Contact number: 8011115480
Corresponding email id:astu.stc.2020@gmail.com

One week short term course On

Material Characterization and Tribology

UNDER TEQIP-III

2nd - 6th March, 2020

Organized by

ASSAM SCIENCE AND TECHNOLOGY UNIVERSITY

in association with

Department of Mechanical Engineering

ASSAM ENGINEERING COLLEGE

Venue-Seminar Hall, ASTU
Guwahati-781013

ABOUT THE UNIVERSITY

The Assam Science and Technology University (ASTU) is the university established by Government of Assam under Assam Science & Technology University Act 2009 to provide education and research in science & technology and other professional courses in Assam. ASTU now has 23 affiliated colleges / institutions, including Assam Engineering College, conducting undergraduate programs in engineering, science, management and pharmaceutical sciences. The University also conducts an in-house post-graduate course in Energy Engineering.

ABOUT TEQIP III

Technical Education Quality Improvement Program (TEQIP-III) is designed as a Central Sector Scheme to improve the quality of technical education with the project outlay of Rs.2660 crores for the period of 2017-2020 in collaboration with the World Bank. TEQIP-III covers around 200 Government/ Government aided engineering institutes, Affiliating Technical Universities (ATUs) and CFTIs from Focus States/UT. The purpose of considering ATUs in the project is to transfer benefits of the project to the students taking education in around 1100 private unaided institutes.

COURSE OBJECTIVES

Materials characterization refers to the broad and general process by which a material's structure and properties are probed and measured. It is a fundamental process in the field of materials science and engineering, without which no scientific understanding of engineering materials could be ascertained. There is always a need for better & efficient materials with enhanced mechanical and tribological properties for replacing conventional materials since even a slight improvement by tailoring the properties and also reducing energy and material loss due to friction and wear can reap enormous societal and economic benefits. Tribological is an interdisciplinary subject which contributes to every facet of daily starting from friction in living cell to friction in engine component. The understanding of tribological principles and their application has vast practical importance for optimum design, operation and maintenance of tribo-systems. In order to make a correlation between properties of the materials and its application, suitable characterization techniques are essential. A proper knowledge of tools and techniques for material processing and characterization helps in performing in-depth research in the field material characterization and Tribology.

Keeping in view the importance of material processing and Tribology, the main objective of this short term course is to provide participants an opportunity to learn and discussing the fundamentals of material processing and characterization, and the recent developments in these areas. The course will be useful for the researchers and teachers to teach and carrying out research in different aspects of Material and Tribological applications.

TOPICS

The short term course will cover the following topics:

- Introduction to various Engineering Materials, their characterisation & properties, selection methodologies and its applications.
- Techniques for quantifying microstructures (using image processing, SEM,XRD, etc.) observed using various microscopy methods
- Fundamental of Tribology and mechanism of material Tribology in different application & Tribo-testing objectives and approaches
- Green Tribology- Role of Tribology in sustainable development
- Special topics: Biotribology, corrosion triobology, bearing tribology

EXPECTED BENEFICIARIES

Students, research scholars and faculty from affiliated institutes of the University

REGISTRATION Fee : Nil

Important dates
Last date of registration: 20.02.2020
Initiation of selection (by email): 21.02.2020

HOW TO APPLY

An application form has been attached in the end of the brochure. A scanned copy of duly signed application form has to be submitted to the program coordinator via email. Participant can also registered through googlefrom available on university website:
https://forms.gle/qKNbqyU5iBKFvR1BA

RESOURCE PERSONS

The persons include experts from IITs and other reputed institutions/organizations/industries.

Programme Schedule of One-week Short term course

"Material Characterization and Tribology"

2nd - 6th March, 2020

Venue: Seminar Hall, ASTU

Date & time	9:30-10:00	10:00-11:30	11:30-11:45	11:45-13:15	13:15-14:00	14:00-15:30	15:30-17:00	17:00-17:30
02.03.2020	Registration & Breakfast	Keynote Speaker- Prof. P.S. Robi *Deputy Director, IITG* Topic: *Mechanical Characterization of Material*	Tea Break	Prof. S.K. Kakaty *Mechanical Engineering, IITG* Topic: *Fundamental theories of friction, wear and Lubrication*	Lunch	Mr. Gawaikarys Director Metatech Industries, Pune Topic: *Metallography Principles and Practices*	Dr. Niharendu Saha *Mechanical Engineering, Assam Engineering College, Guwahati* Topic: *Bearing Technology*	Evening Tea
03.03.2020	Breakfast	Dr. Sidananda Sarma *Department of Physics IIT Guwahati* Topic: *Application of DSC and TGA in material characterization*		Dr. Debashish Choudhury *IASST, Guwahati* Topic: *Application of SEM and TEM in material characterization*		Dr. Shubrajit Bhaumik SRM Institute of Science and Technology, Chennai Topic: *Bio lubricants & Basic concepts of the Tribometers*	Dr. Shubrajit Bhaumik & Mr. Nabajit Dev Choudhury *Hands on Training on Tribology equipments at ASTU*	
04.03.2020		Dr. Shubrajit Bhaumik *SRM Institute of Science and Technology, Mechanical Engineering Department, Chennai* Topic: *Surface texturing*		Dr. S. Karmakar & Dr. S. Bardaloi SAIF, Gauhati University Topic: *Application of XRD and XRF in material characterization*		Dr. Debashish Choudhury *IASST, Guwahati* *Hands on Training on **SEM and TEM** at IASST, Guwahati*		
05.03.2020		Prof. Prasun Chakraborty *Mechanical Engineering, NIT Agartala* Topic: *Combustion and Engine Tribology*		Prof. S. Senthilvelan *Mechanical Engineering, IITG* Topic: *Polymer gear Tribology*		Mr. D. Das SAIF, Gauhati University *Hands on Training on **XRD and XRF** at Gauhati University*		
06.03.2020		Dr. Anil Bora *Mechanical Engineering, Assam Engineering College, Guwahati* Topic: *Padagogy*		Dr. Anil Borah & Monoj Baruah *Hands on Training on Material Processing and Testing at ASTU*		Mr. Nabajit Dev Choudhury & Mr. Monoj Baruah *Hands on Training on TGA and DSC at ASTU*	Valedictory Function	









INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY
AN AUTONOMOUS INSTITUTE UNDER D.S.T., GOVT. OF INDIA

Attendance Report

"Material Characterization and Tribology", 2nd - 6th March, 2020

DATE: 04/03/2020 (Wednesday)

S.I.	Name of Participant	Gender	Designation	Department	Name of Institute	Forenoon	Afternoon
						10.00 am - 1.15 pm	2.00 pm - 5.00pm
1	Dimbendra Kumar Mahanta	Male	Professor	Mechanical Engineering	Assam Engineering College	Dmahanta	Dmahanta
2	Dr. Dilip Kumar Bora	Male	Associate Professor	Mechanical Engineering	Assam Engineering College	—	—
3	Dr Deba Kumar Mahanta	Male	Assistant Professor	Electrical Engineering	Assam Engineering College		
4	Dr. Utpal Nath	Male	Associate Professor	Chemistry	Assam Engineering College	—	—
5	Prasanta Kumar Choudhury	Male	Assistant Professor	Mechanical Engineering	Assam Engineering College	—	—
6	Manash Bhuyan	Male	Assistant Professor	Industrial & Production Engineering	Assam Engineering College		
7	Mousumi Gogoi	Female	Assistant Professor	Mechanical Engineering	Assam Engineering College	—	—
8	Nabajit Dev Choudhury	Male	Assistant Professor	Energy Engineering	Assam Science and Technology University		
9	Monoj Baruah	Male	Assistant Professor	Energy Engineering	Assam Science and Technology University		
10	Md Sarful Alam	Male	Assistant Professor	Electronics & Telecom. Engineering	Barak Valley Engineering College		
11	Dr. Rahul Amin Reza	Male	Assistant Professor	Chemistry	Barak Valley Engineering College		
12	Rajib Bhowmik	Male	Assistant Professor	Mechanical Engineering	GIMT, Guwahati		
13	Unshuman Chatterjee	Male	Assistant Professor	Mechanical Engineering	GIMT, Guwahati		
14	Rajesh Ghosh	Male	Research Scholar	Physics	Gauhati University	4/3	4/3/20
15	Biswajit Dehingia	Male	Research Scholar	Physics	Gauhati University		
16	Dr. Satyajit Paul	Male	Principal	Mechanical Engineering	Golaghat Engineering College	Satyajit Paul 10 A.M.	
17	Zakaria Halim	Male	Guest Faculty	Chemical Engineering	Golaghat Engineering College	Z. Halim 4/3/2020	Z. Halim 4/3/2020
18	Debasish Gogoi ~~Male~~	Male	Guest Faculty	Mechanical Engineering	Golaghat Engineering College	Dgogoi 4/3/2020	Dgogoi 4/3/2020

19	Gautam Kr. Das	Male	Guest Faculty	Civil Engineering	Golaghat Engineering College	G. Das.	G. Das.
20	Nipan Bhandar Kayastra	Male	Guest Faculty	Civil Engineering	Golaghat Engineering College	Nipan B.K.	
21	Mrigakshee Sarmah	Female	Guest Faculty	Civil Engineering	Golaghat Engineering College		
22	Prasenjit Barman	Male	Guest Faculty	Chemical Engineering	Golaghat Engineering College		
23	Miranda Kakoty	Female	Guest Faculty	Chemical Engineering	Golaghat Engineering College	—	—
24	Pranami Bhuyan	Female	Guest Faculty	Mechanical Engineering	Golaghat Engineering College	04.03.2020	04.03.2020
25	Moloy Sameer Dutta	Male	Guest Faculty	Mechanical Engineering	Golaghat Engineering College		
26	Khairujjaman Laskar	Male	Guest Faculty	Chemistry	Golaghat Engineering College		
27	Dr Pradeep Kumar Mahanta	Male	Professor	Mechanical Engineering	Jorhat Engineering College		
28	Bilton Narzary	Male	Student	Mechanical Engineering	Jorhat Engineering College	—	—
29	Jacob Doley	Male	Student	Mechanical Engineering	NIT Agartala		
30	Dr Kabita Baruah	Female	Lecturer	Physics	Nalbari Polytechnic		
31	Trishna Moni Das	Female	Lecturer	Physics	Nalbari Polytechnic		
32	Dr. Bharati deka	Female	Lecturer	Chemistry	Nalbari Polytechnic		
33	Dr. Pramila Kumari prajapati	Female	Assistant professor	Mathematics	Nalbari Polytechnic		
34	Amrit Dutta	Male	Research scholar	Physics	Sibsagar college		
35	Shuchismita Mohan	Female	Research scholar	Physics	Sibsagar College, Jorhat		
36	SANGEETA DAS	Female	Faculty	ME	GIMT- Guwahati		
37	TONMOI HAZARIKA	MALE	Research Scholar	Physics	Gauhati University		
38	RIMLEE SAIKIA	FEMALE	Research Scholar	Physics	G. U.		
39	Saikh Mustafa Rabiul	Male	Research Scholar	physics	Gauhati University		
40	Anurag Kashyap	Male	Research Scholar	Physics	Gauhati University		

ONE-WEEK SHORT TERM COURSE
ON
MATERIAL CHARACTERIZATION AND TRIBOLOGY

Organized by

Assam Science and Technology University, Guwahati

in association with

Department of Mechanical Engineering

ASSAM ENGINEERING COLLEGE

(Under TEQIP – III)

CERTIFICATE OF PARTICIPATION

This is to certify that

(Mr/Ms) Dr. Dilip Kr. Bora

of Assam Engineering College has participated in the "One-week short term course on Material Characterization and Tribology" at Assam Science and Technology University from 2nd to 6th March, 2020.

(PROF. DHIRAJ BORA)
Vice Chancellor, ASTU

(DR. B. R. PHUKAN)
Academic Registrar/TEQIP Coordinator, ASTU

ASSAM SCIENCE AND TECHNOLOGY UNIVERSITY

(A State University of Government of Assam constituted by "Assam Science and Technology University Act, 2009")
Tetelia Road, Near Assam Engineering College, Jalukbari, Guwahati-781013, Assam
Website: www.astu.ac.in

FEEDBACK FORM

1. Name of participant: Dr. Pradeep Kumar Mahanta
2. Faculty [✓] (if yes) Designation Professor Student [ ]
3. Organization with address Jorhat Engg College, Jorhat 785007
4. Nature of event: Short term course(STC)/workshop [ ] Symposium [ ]
5. Name of the event: STC on Material characterization and Tribology
6. Date of the event: 02 March – 06 March 2020

7. Please rate the following

Items	Rating	Comment
The aim and objectives of the program was achieved	1	
Structure and organization of the program	2	
Quality of lectures	1	
Lab demonstrations/ Practice sessions	2	
The topics discussed were appropriate and useful.	1	
Question/Answer/ Discussion encouraged	1	
Administration and logistics(Boarding, lodging, food etc.)	1	

*Rating Scale: 1 = excellent 2 = ok 3 = could do better

- What was the most valuable aspect of the program for you?
  Knowledge of Lab facility availability in ASTU
- Do you suggest any such type of lecture series/workshop/STC? (if yes, please write the topic)
  Workshop for students with hands on training on Tribology
- Any other comment

Signature

Thank you for your participation and completing the questionnaire.

ASSAM SCIENCE AND TECHNOLOGY UNIVERSITY

(A State University of Government of Assam constituted by "Assam Science and Technology University Act, 2009")
Tetelia Road, Near Assam Engineering College, Jalukbari, Guwahati-781013, Assam
Website: www.astu.ac.in

FEEDBACK FORM

1. Name of participant: DEBASISH GOGOI
2. Faculty [✓] (if yes) Designation Guest Faculty Student [ ]
3. Organization with address Golaghat Engineering College, Bogorijeng, Golaghat
4. Nature of event: Short term course(STC)/workshop [✓] Symposium [ ]
5. Name of the event: Material Characterization and Tribology.
6. Date of the event: 02/03/2020 – 06/03/2020

7. Please rate the following

Items	Rating	Comment
The aim and objectives of the program was achieved	1	
Structure and organization of the program	1	
Quality of lectures	1	
Lab demonstrations/ Practice sessions	1	
The topics discussed were appropriate and useful.	1	
Question/Answer/ Discussion encouraged	1	
Administration and logistics(Boarding, lodging, food etc.)	1	

*Rating Scale: 1 = excellent 2 = ok 3 = could do better

- What was the most valuable aspect of the program for you?

  Material characterization was the most valuable aspect.

- Do you suggest any such type of lecture series/workshop/STC? (if yes, please write the topic)

  Yes, Polymer Gear Tribology, Bio-lubrication.

- Any other comment

  —

Debasish Gogoi
Signature

Thank you for your participation and completing the questionnaire.

ASSAM SCIENCE AND TECHNOLOGY UNIVERSITY

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Tetelia Road, Near Assam Engineering College, Jalukbari, Guwahati-781013, Assam
Website: www.astu.ac.in

FEEDBACK FORM

1. Name of participant: ZAKARIA HALIM
2. Faculty [✓] (if yes) Designation Guest Faculty Student [ ]
3. Organization with address Golaghat Engineering College, Dha Bogorijung, Golaghat.
4. Nature of event: Short term course(STC)/workshop [✓] Symposium [ ]
5. Name of the event: Material Characterization and Tribology
6. Date of the event: 02/03/2020 to 06/03/2020
7. **Please rate the following**

Items	Rating	Comment
The aim and objectives of the program was achieved	1	
Structure and organization of the program	1	
Quality of lectures	1	
Lab demonstrations/ Practice sessions	1	
The topics discussed were appropriate and useful.	1	
Question/Answer/ Discussion encouraged	1	
Administration and logistics(Boarding, lodging, food etc.)	1	

*Rating Scale: 1 = excellent 2 = ok 3 = could do better

- What was the most valuable aspect of the program for you?

→ The various characterization techniques were explained & ~~[illegible]~~ very well by the speakers.

- Do you suggest any such type of lecture series/workshop/STC? (if yes, please write the topic)

Yes, Bio-Polymers.

- Any other comment

Zakaria Halim
Signature

Thank you for your participation and completing the questionnaire.

****

Report on 5 Day Virtual Faculty Development Programme

On

"Applied Machine Learning and Deep Learning"

Organized by

Assam Science and Technology University

(Under TEQIP III)

In collaboration with

Department of Computer Science and Engineering, GIMT Guwahati.

A 5 Day virtual FDP was organized in online mode through Google Meet on "Applied Machine Learning and Deep Learning" from 24th – 27th February, 1st March 2021 which was co-ordinated by Mrs. Pinky Saikia Dutta and Ms. Mala Ahmed. The FDP was organized for the Faculty Members, Staff Members and Research Scholars. After attending the FDP, participants were able to gather knowledge of different machine learning and deep learning techniques and applications and also NLP. Total 75 participants registered for the FDP from various institutions of Assam, Arunachal Pradesh, Manipur and Sikkim.

The detailed schedule of the FDP is attached below-

DAY	DATE	SESSION	RESOURCE PERSON WITH TOPIC
DAY 1 (WEDNESDAY)	24/02/2021	10AM-10:30AM	INAUGURATION CEREMONY
		10:30AM - 12NOON	DR. SHYAMANTA M. HAZARIKA PROFESSOR DEPARTMENT OF MECHANICAL ENGINEERING IIT GUWAHATI TOPIC: MACHINE LEARNING OVERVIEW: TRENDS AND PROSPECTS
		1 PM-2:30PM	DR. ROSY SARMAH ASSISTANT PROFESSOR DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING TEZPUR UNIVERSITY TOPIC: MACHINE LEARNING IN MEDICAL DATA
DAY 2 (THURSDAY)	25/02/2021	10AM-11:30AM	DR. DHRUBA K BHATTACHARYYA PROFESSOR DEPTARTMENT OF COMPUTER SCIENCE AND ENGINEERING TEZPUR UNIVERSITY TOPIC: DEEP LEARNING AND ITS APPLICATION IN MALWARE CLASSIFICATION
		1PM-2:30PM	MRS. PARISMITA GOGOI ASSISTANT PROFESSOR DEPARTMENT OF ELECTRONICS CAND COMMUNICATION ENGINEERING DIBRUGARH UNIVERSITY INSTITUTE OF ENGINEERING AND TECHNOLOGY TOPIC: MACHINE LEARNING APPLICATION IN SPOKEN LANGUAGE PROCESSING
DAY 3 (FRIDAY)	26/02/2021	10AM-11:30AM	DR. SISHIR KALITA DATA SCIENTIST Armsoftech.air, CHENNAI TOPIC: STRUCTURING MACHINE LEARNING PROJECT
		1PM-2:30PM	DR.VIKRAM C. MATHAD POSTDOCTORAL SCHOLAR ARIZONA STATE UNIVERSITY, USA TOPIC: MACHINE LEARNING FOR CLINICAL SPEECH PROCESSING

DAY 4 (SATURDAY)	27/02/2021	10AM-11:30AM	DR. PRITHWIJIT GUHA ASSISTANT PROFESSOR DEPARTMENT OF ELECTRONICS AND ELECTRICAL ENGINEERING IIT GUWAHATI **TOPIC: TELEVISION COMMERTIALIZATION USING NEURAL TREE**
		1PM-2:30PM	DR. KANDARPA KUMAR SARMA PROFESSOR, HEAD DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING GAUHATI UNIVERSITY **TOPIC: IoT AND MACHINE LEARNING CONFIGURATION**
DAY 5 (MONDAY)	01/03/2021	10AM-11:30AM	DR. UTPAL SHARMA PROFESSOR DEPT. OF COMPUTER SCIENCE AND ENGINEERING TEZPUR UNIVERSITY **TOPIC: NATURAL LANGUAGE PROCESSING AND MACHINE LEARNING**
		1PM-2:30PM	DR. SANJIB KUMAR KALITA ASSISTANT PROFESSOR DEPT. OF COMPUTER SCIENCE GAUHATI UNIVERSITY **TOPIC: DEEP LEARNING ON SATELLITE DATA**
		2:30PM-3PM	**VALEDICTORY FUNCTION**

Day 1: 24th February 2021

Session 1: Morning Session (10 AM to 12 Noon)

There was an inauguration ceremony at the beginning of the programme. After that we started the 1st session. Among us we had Dr. Shyamanta M. Hazarika, Professor, Department of Mechanical Engineering, IIT Guwahati.

Profile of the Resource Person:

Shyamanta M Hazarika is a Professor in the Department of Mechanical Engineering, IIT Guwahati where he leads the Biomimetic Robotics and Artificial Intelligence Lab. His primary research interest is in Robotic Neurorehabilitation. This translates into interest in and Machine Learning, Artificial Intelligence and Rehabilitation Robotics. Prior to joining IIT Guwahati, he was with the Department of Computer Science and Engineering, Tezpur University. He had been a Vertretungsprofessur (substitute `Full' Professor) of Cognitive Systems & NeuroInformatics, University of Bremen, Germany. He holds a B.E. in Mechanical Engineering from Assam Engineering College, Guwahati, India; M.Tech. in Robotics from Centre for Robotics, IIT Kanpur, India and PhD from School of Computing, University of Leeds, England.

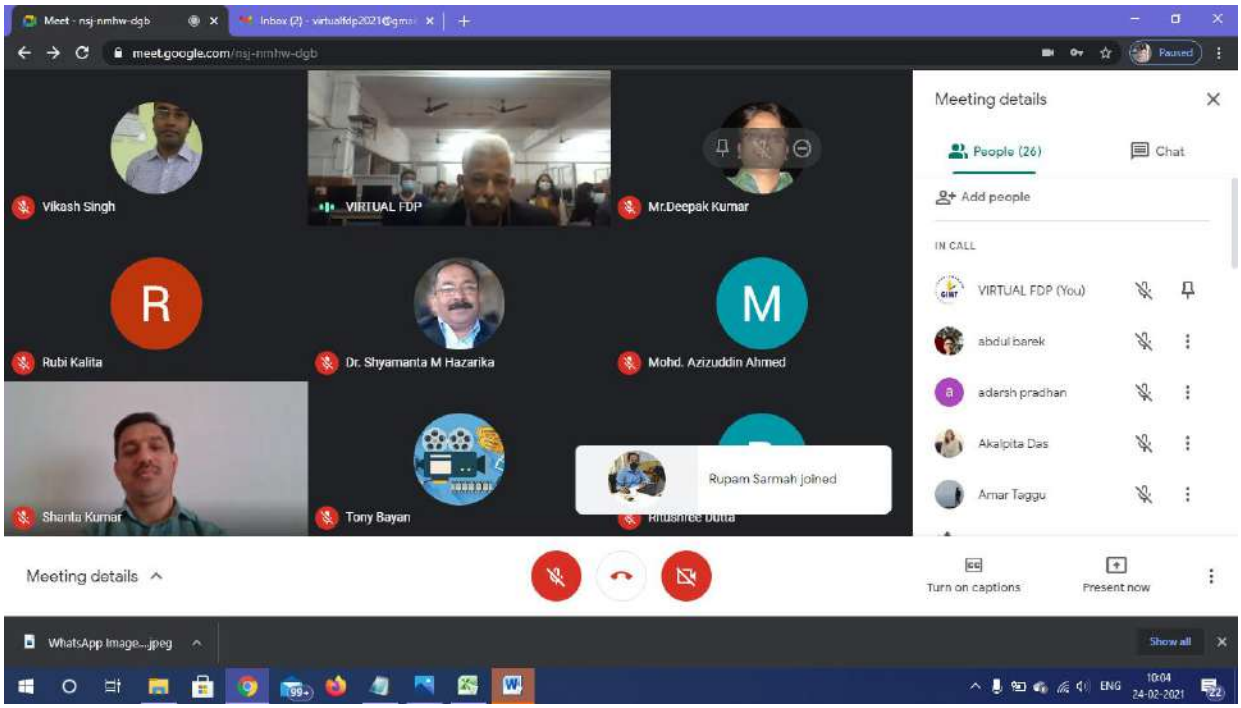
About the talk:

Sir has delivered talk on "MACHINE LEARNING OVERVIEW: TRENDS AND PROSPECTS".

Summary of the talk:

Here the history of Machine Learning would be traced to understand the Emergence of Deep Learning. A brief presentation of the Fundamentals of Machine Learning would be followed by highlight of the recent trends. The emphasis shall be in highlighting significant moments and advancements in Machine Learning that had far-reaching consequences on the field. The talk would dwell on the Frontiers of Machine Learning Research, surging and poised to change the world in more ways than one could possibly imagine.

Snapshots of 1st Session:



Session 2:

Afternoon Session (1 PM to 2:30PM)

For this session we had Dr. Rosy Sarmah, Assistant Professor, Department of Computer Science and Engineering, Tezpur University.

About the talk:

Madam has delivered talk on “MACHINE LEARNING IN MEDICAL DATA”.

Profile of the Resource Person:

Dr. Rosy Sarmah is an Assistant Professor in the Dept. of Computer Science and Engineering, Tezpur University, Tezpur, India. She received her Ph.D. (Computer Science) from Tezpur University in the year 2012. Her research interests include Image Processing, Clustering and Bioinformatics. Till 2010, she held the surname of Das and her published papers were under the name of Rosy Das. She has recently published a book titled "Clustering Techniques in Spatial Data Analysis". She has a total of 10 international journal papers, 04 book chapters and more than 10 international conference papers.

Areas of Interest
Image Processing, Clustering and Bioinformatics

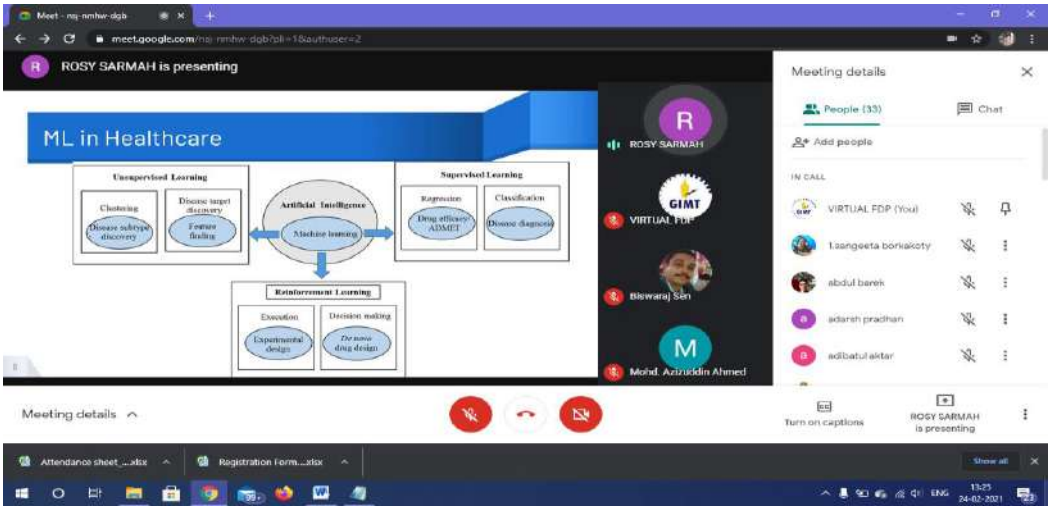
Educational Qualifications
PhD: Department of CS & Engg., Tezpur University, Tezpur, Assam, India
M.C.A.: Department of MCA, Jorhat Engineering College, Jorhat, Assam, India

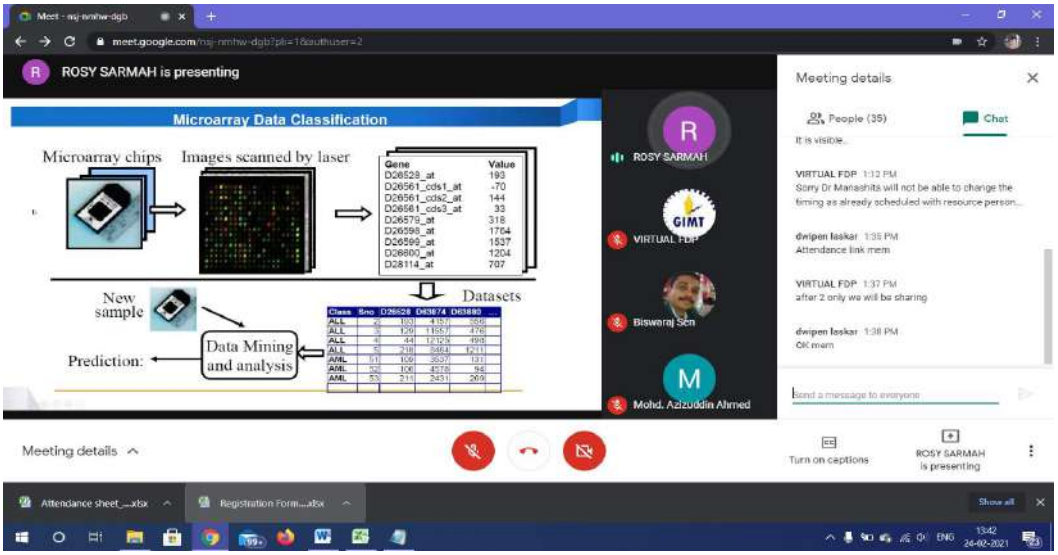
Experience
Faculty, Dept. of CS & Engg., Tezpur University since 2009
Faculty, DOEACC Programme, Tezpur University, 2006-2008
Guest Faculty, Dept. of MCA, Jorhat Engineering College, 2004-2005.

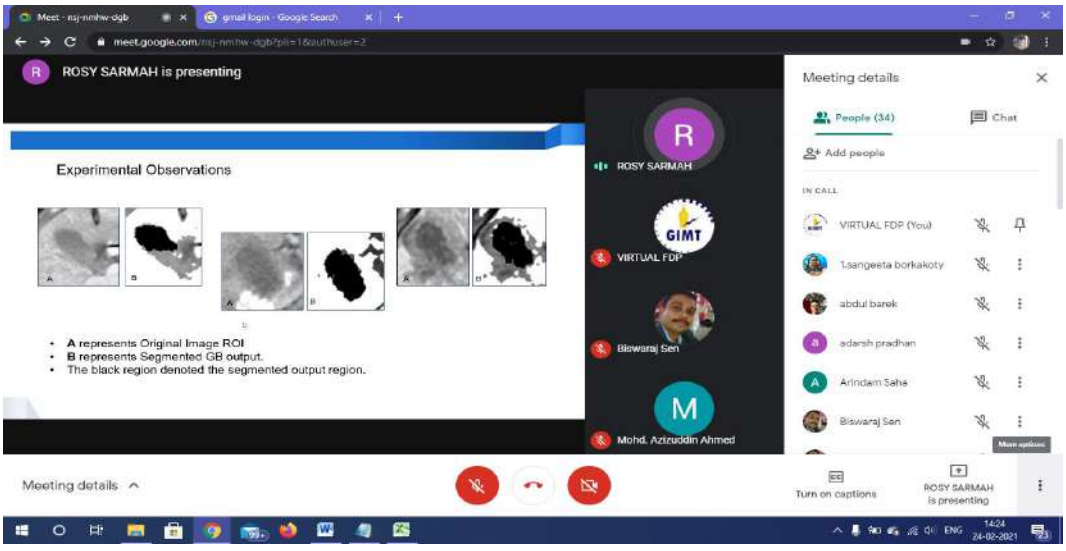
Summary of the talk:

Madam has delivered a talk on Machine Learning Applications in medical images. She has explained the idea of machine learning in healthcare also about computational biology, microarray technology etc.

Snapshots of 2nd Session:


ROSY SARMAH is presenting
ML in Healthcare
Unsupervised Learning
Clustering
Disease subtype discovery
Disease target discovery
Feature finding
Artificial Intelligence
Machine learning
Supervised Learning
Regression
Drug efficacy, ADMET
Classification
Disease diagnosis
Reinforcement Learning
Execution
Experimental design
Decision making
De novo drug design
Meeting details
People (33)
Chat
Add people
IN CALL
VIRTUAL FDP (You)
1.sangeeta borkakoty
abdul barek
adarsh pradhan
adibatul aktar
ROSY SARMAH
VIRTUAL FDP
Biswaraj Sen
Mohd. Azizuddin Ahmed
Turn on captions
ROSY SARMAH is presenting


ROSY SARMAH is presenting
Microarray Data Classification
Microarray chips
Images scanned by laser
Gene
Value
D26528_at 193
D26561_cds1_at -70
D26561_cds2_at 144
D26561_cds3_at 33
D26579_at 318
D26598_at 1764
D26599_at 1537
D26800_at 1204
D28114_at 707
New sample
Datasets
Data Mining and analysis
Prediction:
Meeting details
People (35)
Chat
VIRTUAL FDP 1:12 PM
Sorry Dr Manashita will not be able to change the timing as already scheduled with resource person...
dwipen laskar 1:35 PM
Attendance link mem
VIRTUAL FDP 1:37 PM
after 2 only wa will be sharing
dwipen laskar 1:38 PM
OK mem
ROSY SARMAH
VIRTUAL FDP
Biswaraj Sen
Mohd. Azizuddin Ahmed
Turn on captions
ROSY SARMAH is presenting


ROSY SARMAH is presenting
Experimental Observations
A represents Original Image ROI
B represents Segmented GB output.
The black region denoted the segmented output region.
Meeting details
People (34)
Chat
Add people
IN CALL
VIRTUAL FDP (You)
1.sangeeta borkakoty
abdul barek
adarsh pradhan
Arindam Saha
Biswaraj Sen
ROSY SARMAH
VIRTUAL FDP
Biswaraj Sen
Mohd. Azizuddin Ahmed
Turn on captions
ROSY SARMAH is presenting

Day 2: 25th February 2021

Session 1: Morning Session (10 AM to 12 Noon)

For this session we had DR. DHRUBA K BHATTACHARYYA, PROFESSOR, DEPTARTMENT OF COMPUTER SCIENCE AND ENGINEERING, TEZPUR UNIVERSITY

Profile of the Resource Person:

Dhruba Kr Bhattacharyya received his PhD in Computer Science and Engineering from Tezpur University in 1999 in the field of Cryptography and Error Control Coding. Currently, he is a Senior Professor in the Department of CSE, Tezpur University and also, the Dean of Academic Affairs. The three major fields of research that excite Prof Bhattacharyya are Machine Learning, Cyber Security, and Bioinformatics, and in all these three fields his contributions are significant. Till date, Prof Bhattacharyya has published more than 280 research articles in various peer-reviewed international journals and selected conference proceedings. Prof Bhattacharyya has authored/edited 18 reference books in the field of machine learning and its applications. Under the supervision of Prof Bhattacharyya, 20 students have successfully completed their PhD in Computer Science. It will be worthwhile to mention that Dr Bhattacharyya has successfully completed 11 major research projects and 04 are on-going. He is also on the review panel of most major research grants for DST and several other Int'nl funding agencies. Machine learning research at TU, led by Prof Bhattacharyya, has already been recognized by Ministry of HRD as a Centre of Excellence. Research in ML and its applications in various domains carried out by Prof Bhattacharyya's group have also been recognized by the UGC, with special financial assistance. Prof Bhattacharyya is a fellow of IETE (Institution of Electronics and Telecommunication Engineers), IE (Institution of Engineers) and Sr. Member, IEEE. He is editor of Springer Nature Journal of Computer Science and also on the Editorial/Advisory Boards of several other international journals.

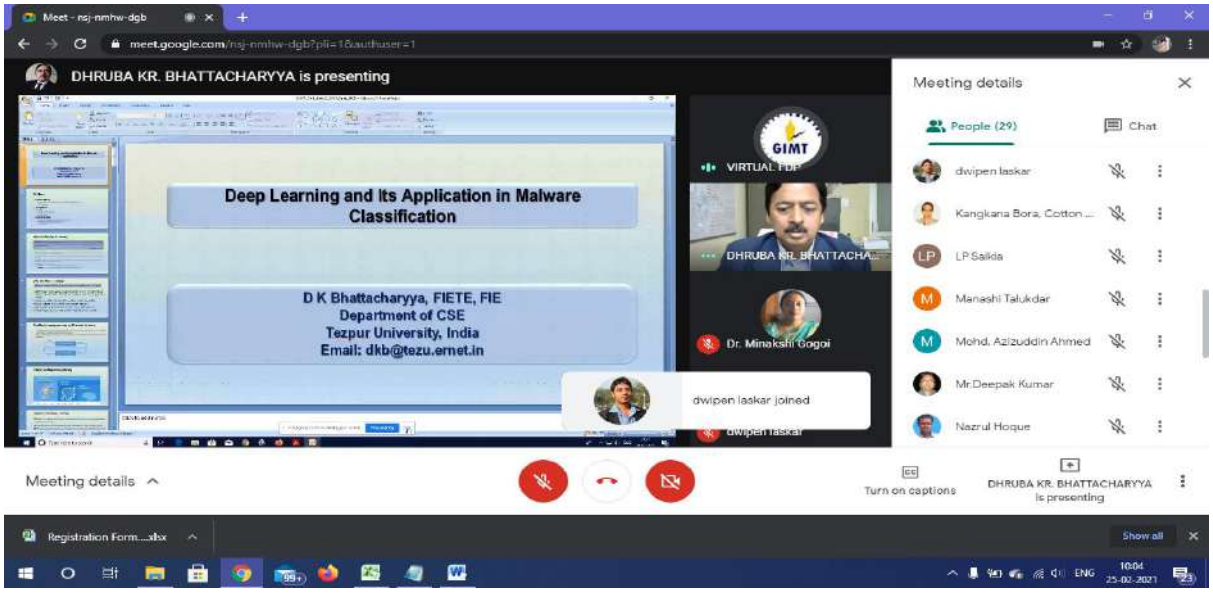
About the talk:

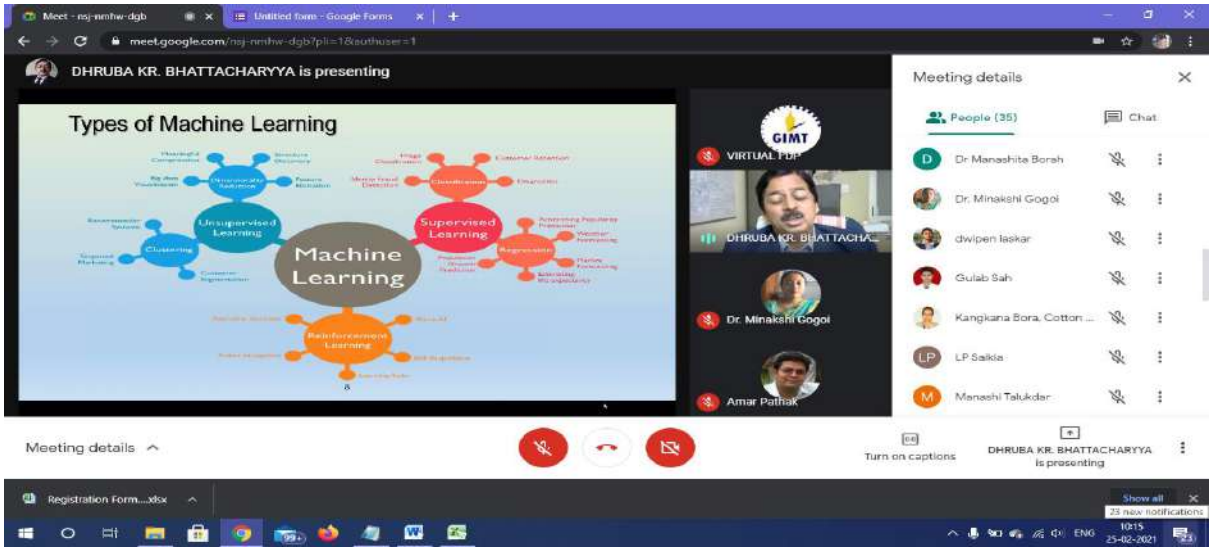
Sir has delivered talk on "**DEEP LEARNING AND ITS APPLICATION IN MALWARE CLASSIFICATION**".

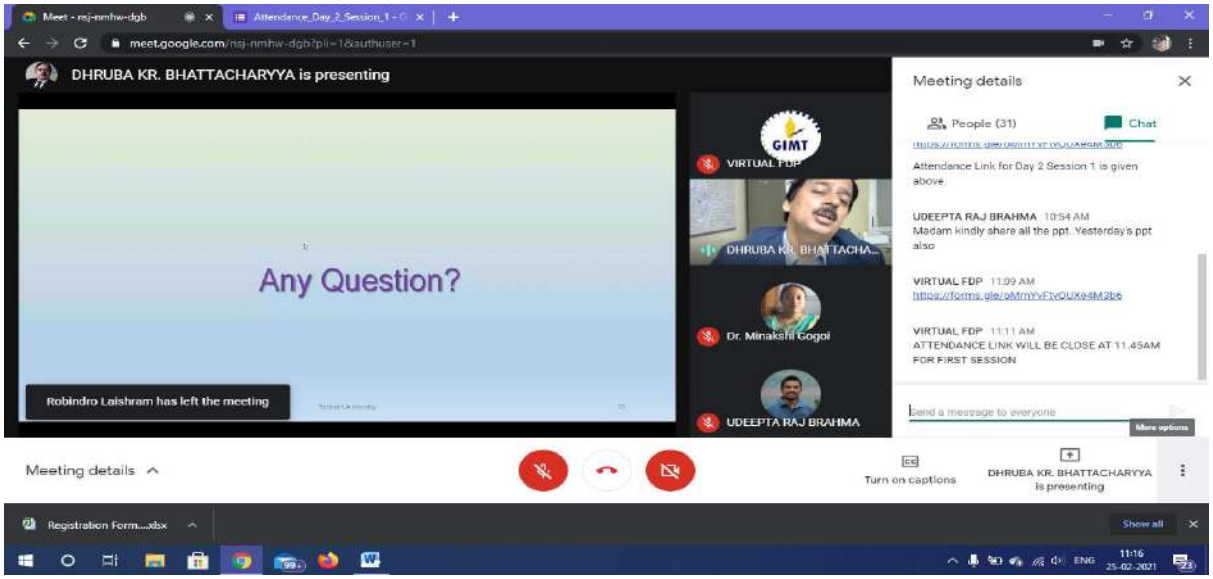
Summary of the talk:

Sir has delivered lecture on deep learning, malware detection using deep learning, CNN architecture setup etc.

Snapshots of 1st session:







Session 2:

Afternoon Session: (1 PM to 2:30PM)

For this session we had MRS. PARISMITA GOGOI, ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRONICS CAND COMMUNICATION ENGINEERING, DIBRUGARH UNIVERSITY INSTITUTE OF ENGINEERING AND TECHNOLOGY

About the talk:

Madam has delivered talk on "MACHINE LEARNING APPLICATION IN SPOKEN LANGUAGE PROCESSING"

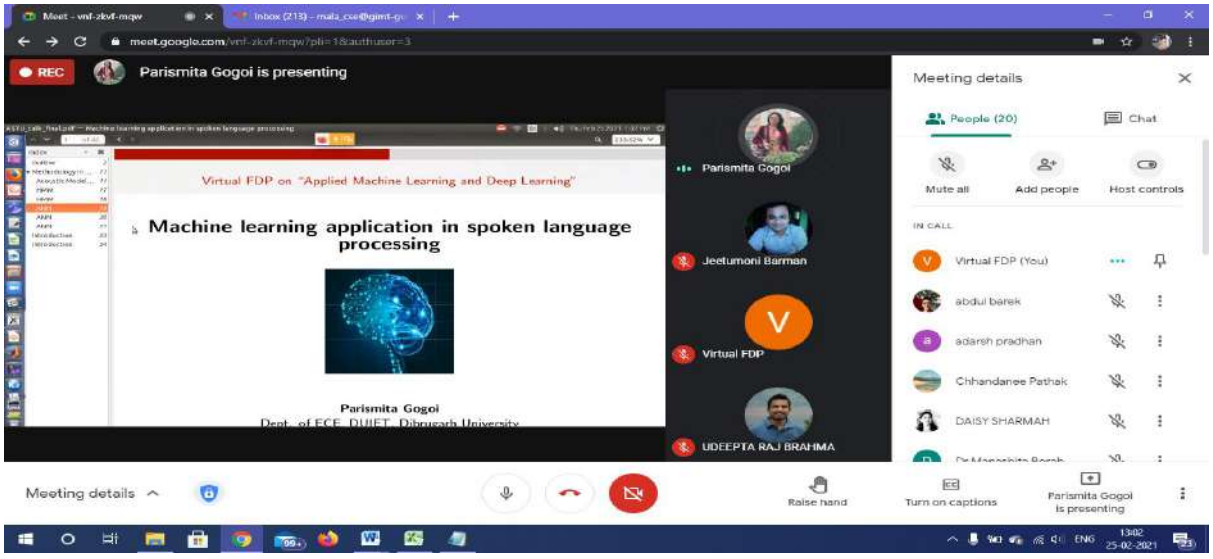
Profile of the Resource Person:

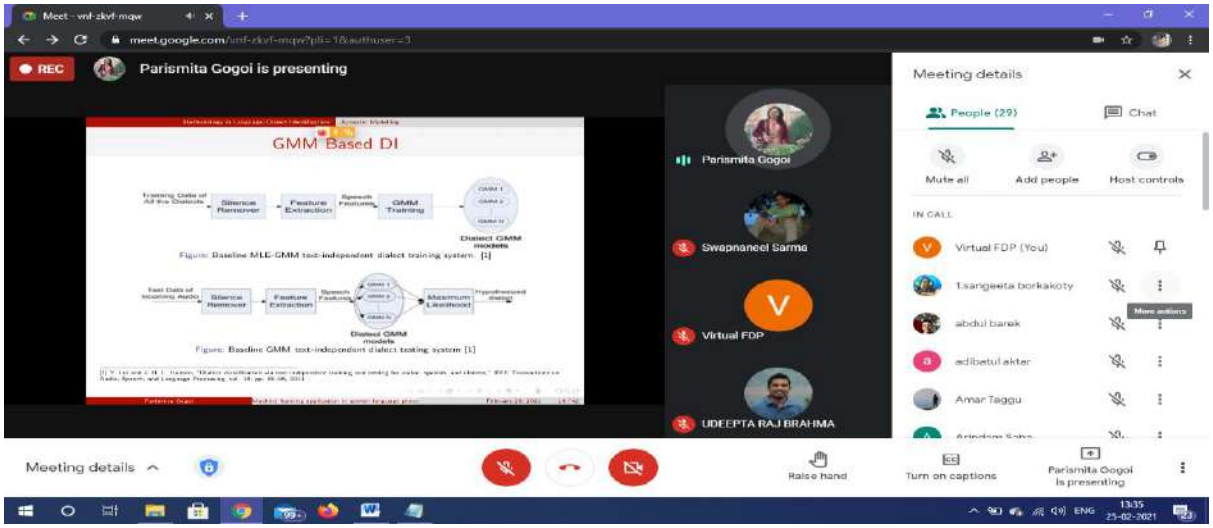
Parismita Gogoi did her M.Tech from Gauhati University in the year of 2012. And currently pursuing Ph.D. in speech signal processing from IIT Guwahati. She is working as an Assistant Professor in the dept. of ECE, DUIET, Dibrugarh University from 2012. She has published several research articles in peer-reviewed journals and conferences. Her areas of research are dialect identification, tone modelling, language identification, and acoustic phonetics. She has been conferred Best Paper Award at 13th World Scientific and Engineering Academy and Society (WSEAS) International Conference on NEURAL NETWORKS (NN '12), held in "G. Enescu" University, Iasi, Romania Conference: for the paper "Hybrid Channel Estimator with Recurrent Neural Networks for Space-Time Block Code over Rayleigh Faded Channels". She holds Membership of Professional Bodies like IEEE Professional Member, ISCA (International Speech Communication Association) and ACM-India.

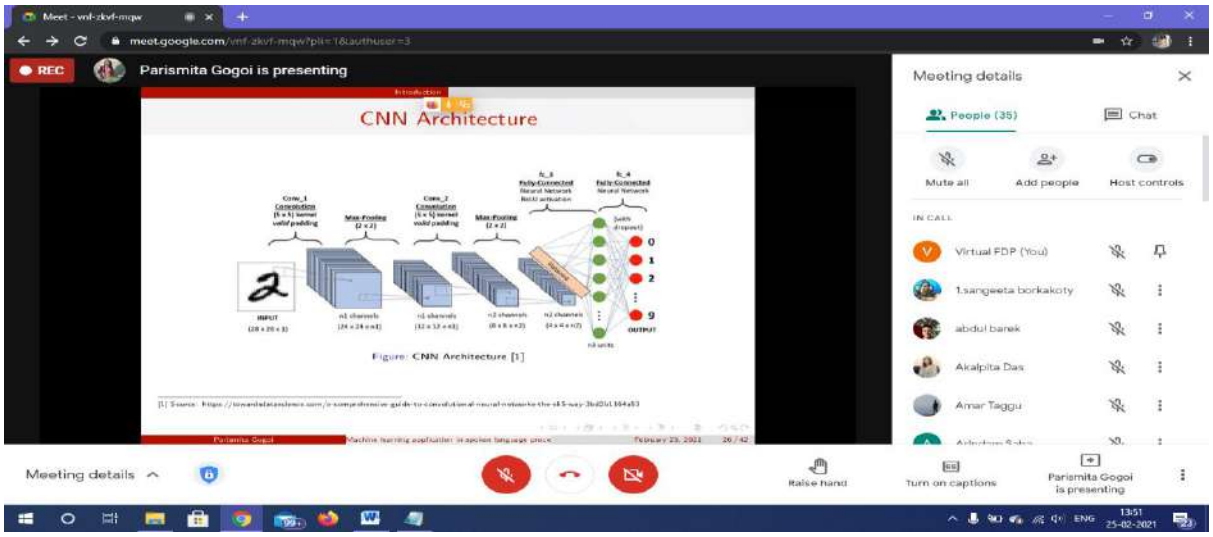
Summary of the talk:

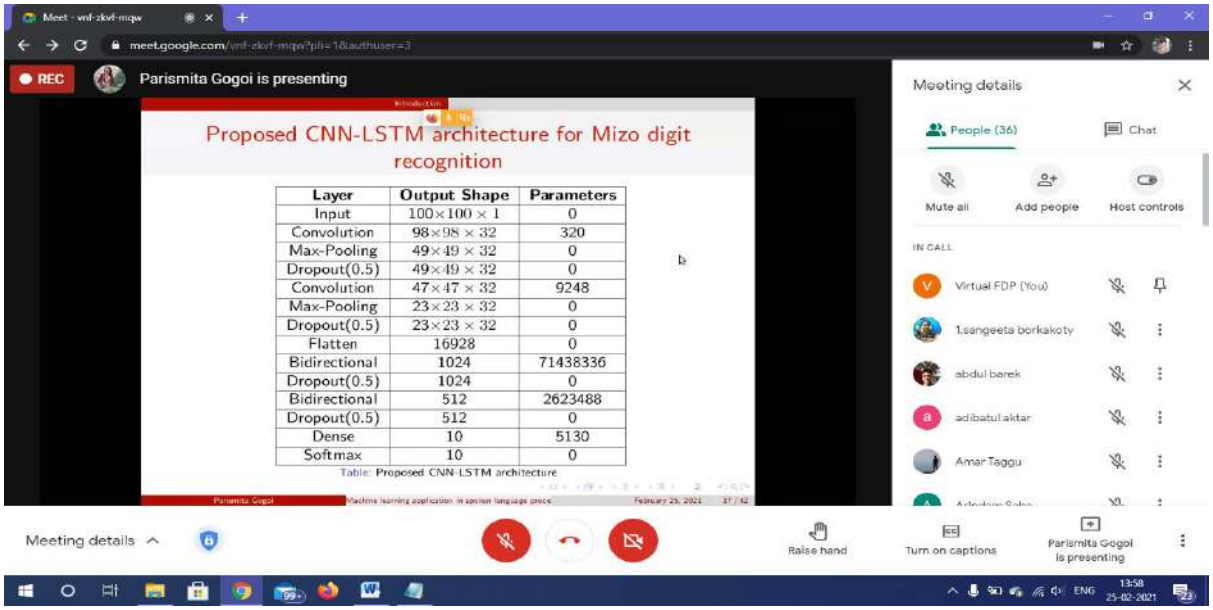
Madam has described the interdisciplinary nature of speech technologies, ASR architecture, process of automatic speech recognition system, GMM based DI etc.

Snapshots of 2nd Session:









Layer	Output Shape	Parameters
Input	100×100 × 1	0
Convolution	98×98 × 32	320
Max-Pooling	49×49 × 32	0
Dropout(0.5)	49×49 × 32	0
Convolution	47×47 × 32	9248
Max-Pooling	23×23 × 32	0
Dropout(0.5)	23×23 × 32	0
Flatten	16928	0
Bidirectional	1024	71438336
Dropout(0.5)	1024	0
Bidirectional	512	2623488
Dropout(0.5)	512	0
Dense	10	5130
Softmax	10	0

Day 3: 26th February 2021

Session 1: Morning Session (10 AM to 12 Noon)

For this session we had DR. SISHIR KALITA, DATA SCIENTIST, Armsoftech.air, CHENNAI.

Profile of the Resource Person:

Dr. Sishir Kalita did his M.Tech from Tezpur University in 2012. And Ph.D. in pathological speech signal processing from the Department of EEE, IIT Guwahati, in 2019. Currently, he is working as a data scientist leading the speech tech group at Armsoftech.air, where he is involved in developing various voice tech solutions, such as speech to text, voice id, and speech analytics for contact centres. He has published 17 research articles in peer-reviewed journals and conferences. His team received Samsung Innovation Award 2015 for developing a prototype to detect hyper nasality in pathological speech. His areas of research are pathology speech processing, speech analytics, and acoustic phonetics.

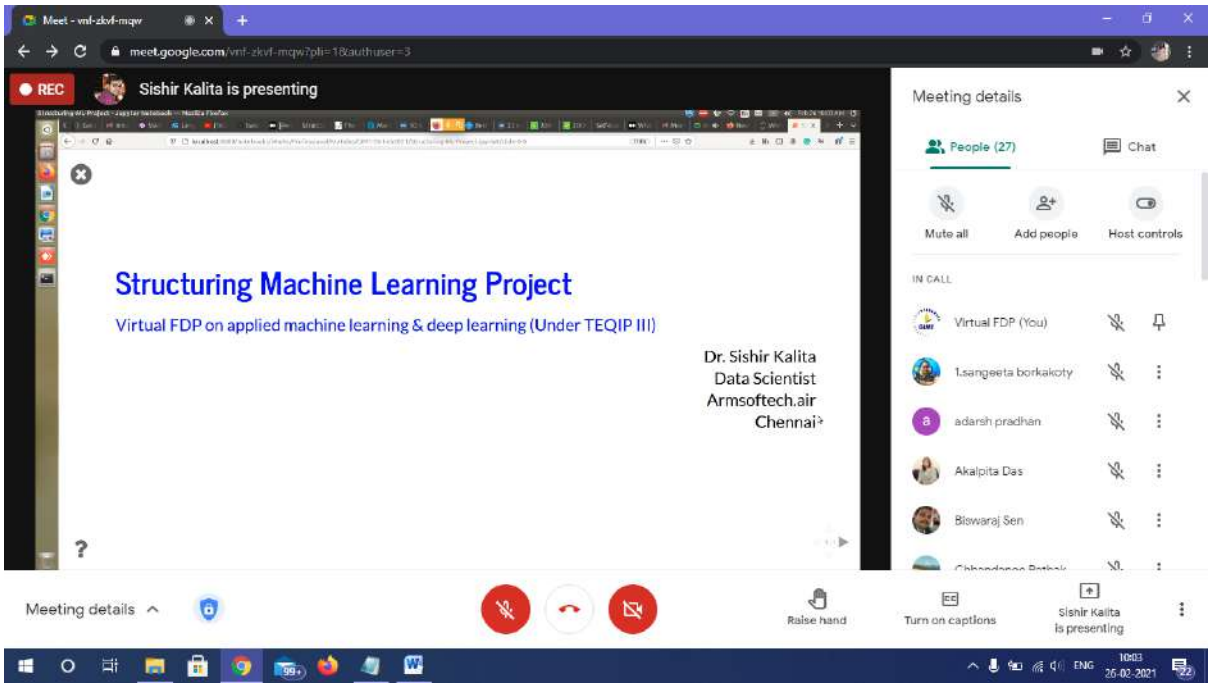
About the talk:

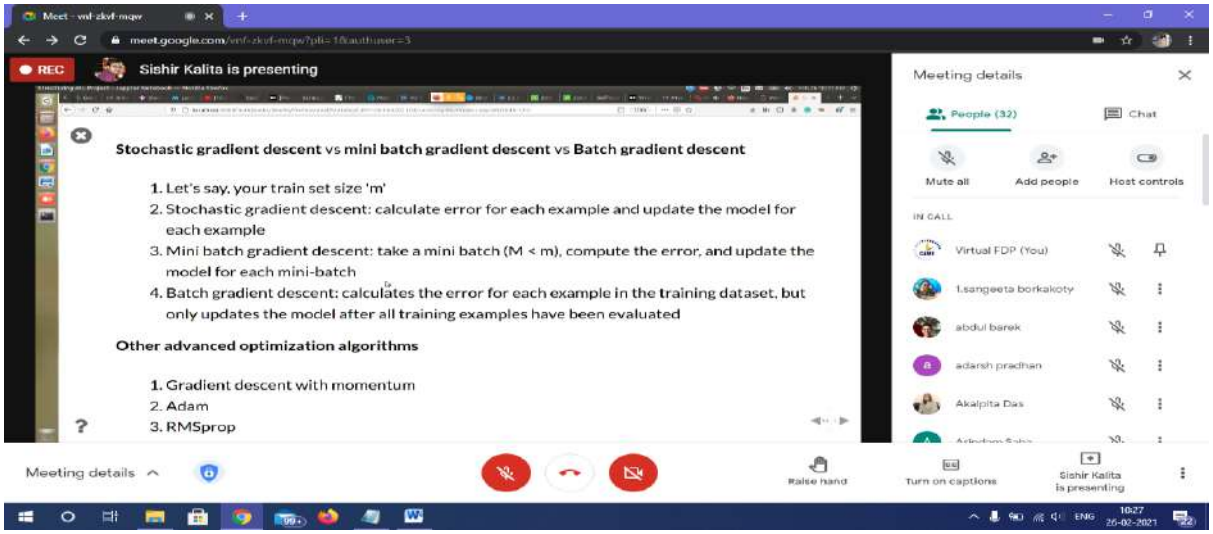
Sir has delivered talk on "**STRUCTURING MACHINE LEARNING PROJECT**".

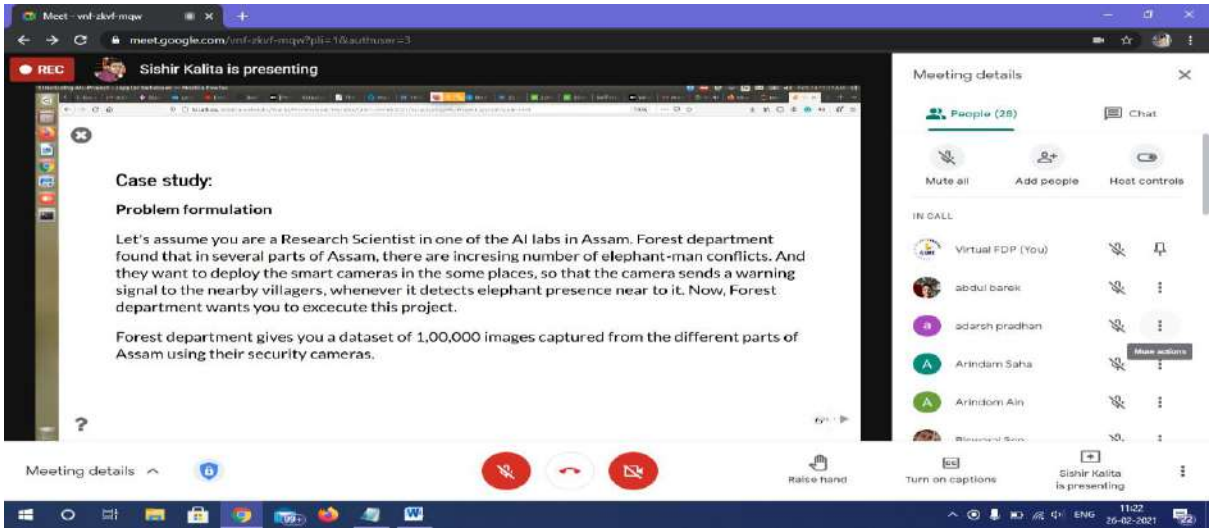
Summary of the talk:

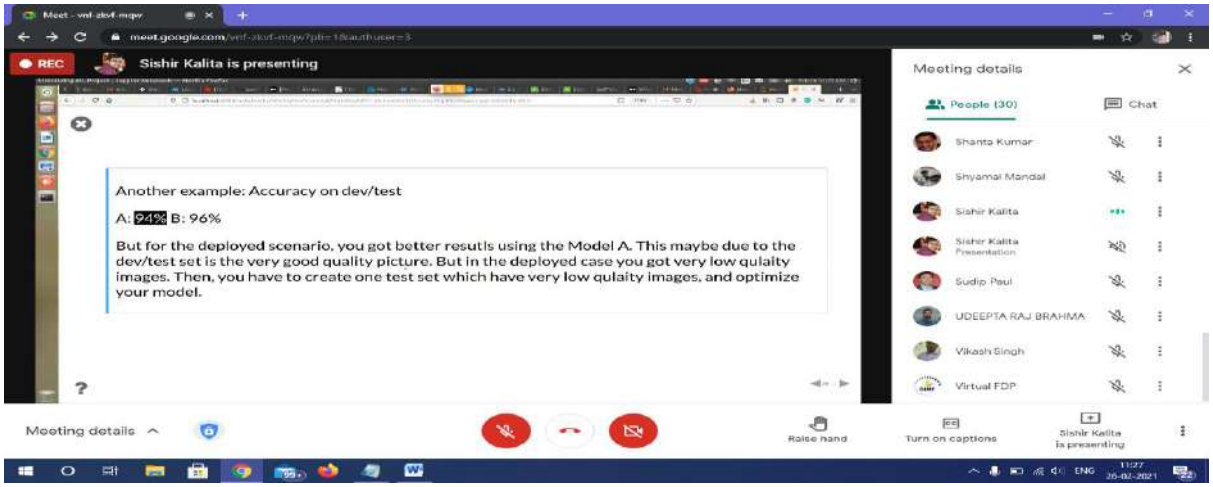
Sir has shown the real-time scenario of project build using Machine Learning. Also told us about epoch, batch gradient descent etc.

Snapshots of the 1st session:




REC
Sishir Kalita is presenting
Stochastic gradient descent vs mini batch gradient descent vs Batch gradient descent
1. Let's say, your train set size 'm'
2. Stochastic gradient descent: calculate error for each example and update the model for each example
3. Mini batch gradient descent: take a mini batch (M < m), compute the error, and update the model for each mini-batch
4. Batch gradient descent: calculates the error for each example in the training dataset, but only updates the model after all training examples have been evaluated
Other advanced optimization algorithms
1. Gradient descent with momentum
2. Adam
3. RMSprop
Meeting details
People (32)
Chat
Mute all
Add people
Host controls
IN CALL
Virtual FDP (You)
1.sangeeta borkakoty
abdul barek
adarsh pradhan
Akalpita Das
Meeting details
Raise hand
Turn on captions
Sishir Kalita is presenting
ENG
10:27
26-02-2021


REC
Sishir Kalita is presenting
Case study:
Problem formulation
Let's assume you are a Research Scientist in one of the AI labs in Assam. Forest department found that in several parts of Assam, there are incresing number of elephant-man conflicts. And they want to deploy the smart cameras in the some places, so that the camera sends a warning signal to the nearby villagers, whenever it detects elephant presence near to it. Now, Forest department wants you to excecute this project.
Forest department gives you a dataset of 1,00,000 images captured from the different parts of Assam using their security cameras.
Meeting details
People (28)
Chat
Mute all
Add people
Host controls
IN CALL
Virtual FDP (You)
abdul barek
adarsh pradhan
Arindam Saha
Arindom Ain
Meeting details
Raise hand
Turn on captions
Sishir Kalita is presenting
ENG
11:22
26-02-2021


REC
Sishir Kalita is presenting
Another example: Accuracy on dev/test
A: 94% B: 96%
But for the deployed scenario, you got better resutls using the Model A. This maybe due to the dev/test set is the very good quality picture. But in the deployed case you got very low qulaity images. Then, you have to create one test set which have very low qulaity images, and optimize your model.
Meeting details
People (30)
Chat
Shanta Kumar
Shyamal Mondal
Sishir Kalita
Sishir Kalita
Sudip Paul
UDEEPTA RAJ BRAHMA
Vikash Singh
Virtual FDP
Meeting details
Raise hand
Turn on captions
Sishir Kalita is presenting
ENG
11:27
26-02-2021

Session 2

Afternoon Session (1 PM to 2:30PM)

For this session we had DR.VIKRAM C. MATHAD, POSTDOCTORAL SCHOLAR, ARIZONA STATE UNIVERSITY, USA

About the talk:

Sir has delivered talk on "MACHINE LEARNING FOR CLINICAL SPEECH PROCESSING"

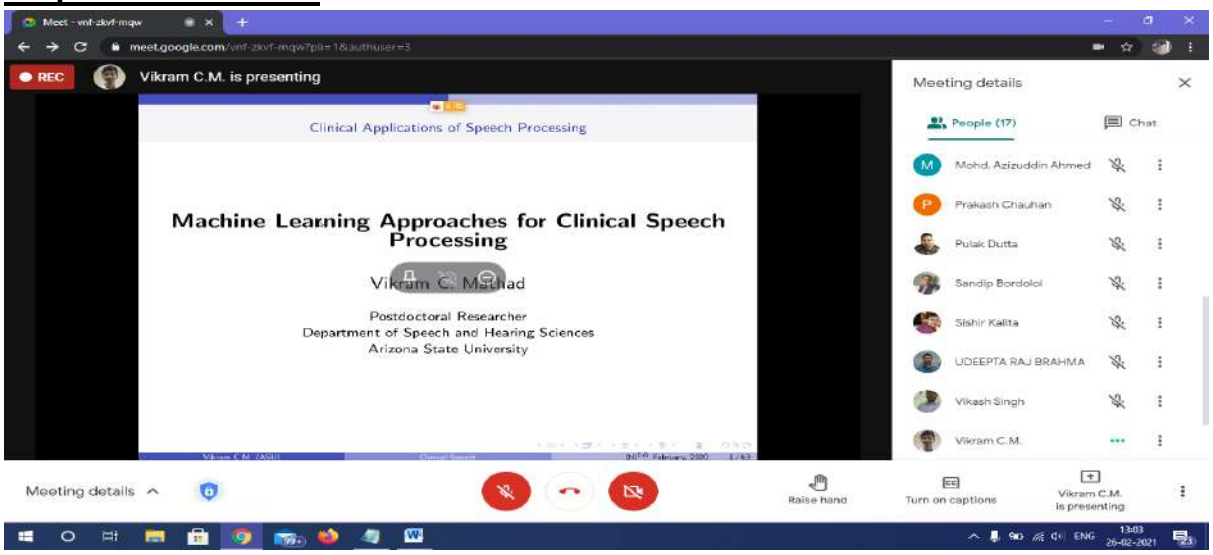
Profile of the Resource Person:

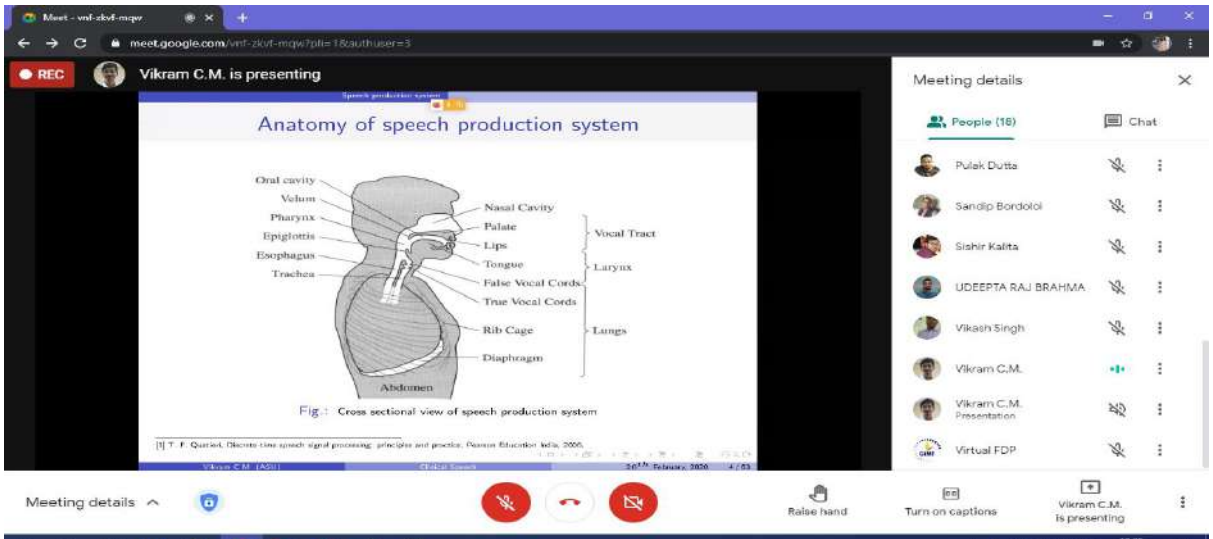
Dr. Vikram C. Mathad received the B.E. degree in Electronics and Communication Engineering (ECE) from PESIT, South Campus, Bengaluru, India, in 2011, the M.Tech. degree in biomedical signal processing and instrumentation from SJCE, Mysuru, India, in 2013 and Ph. D degree in Electronics and Electrical Engineering (EEE) from the Indian Institute of Technology Guwahati (IITG), Guwahati, India, in 2019. His thesis work was focused on the automatic detection of misarticulated consonants. He is currently working as a Postdoctoral Researcher in the Department of Speech and Hearing Sciences, Arizona State University, Tempe, Arizona, USA, where his work involves in the development of speech-based objective assessment methods for cleft lip and palate, dysarthria, and Alzheimer's disorders. He also worked for the funded projects sponsored by the Ministry of Human Resource and Development (MHRD)-India, Department of Biotechnology (DBT)-India, and National Institute of Health (NIH)-USA. His research interests include speech signal processing, biomedical signal processing, and machine learning

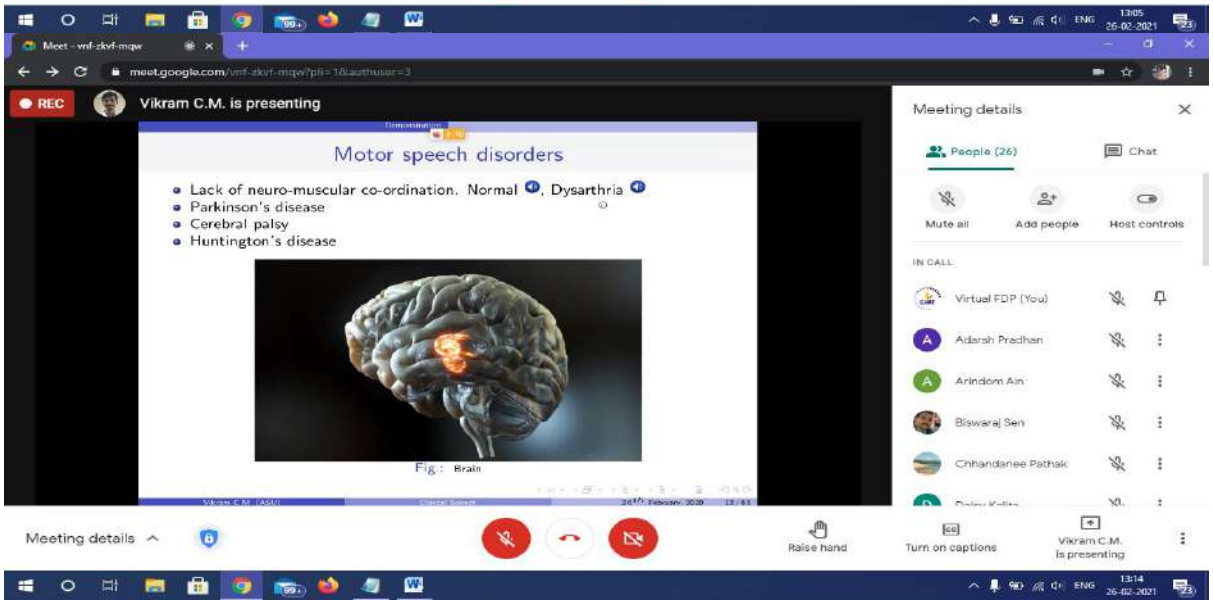
Summary of the talk:

The talk provides an overview of clinical perspectives of automated speech evaluation and the development of clinical speech databases. Further, the applications of machine learning techniques for the automatic evaluation of dysarthria and cleft palate disorders are discussed.

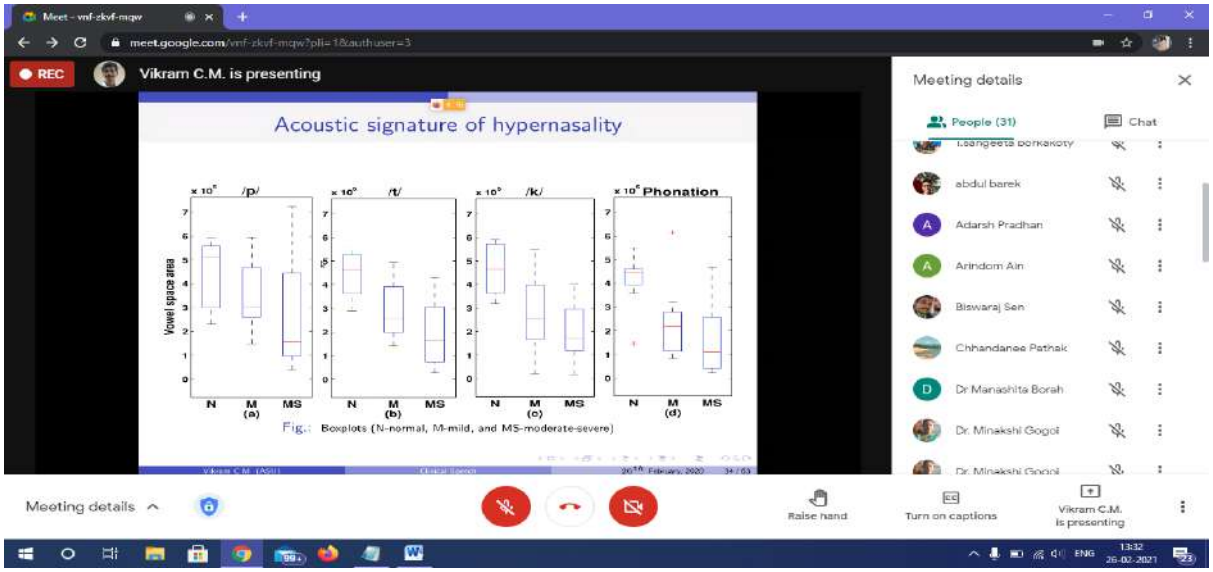
Snapshots of Session 2:

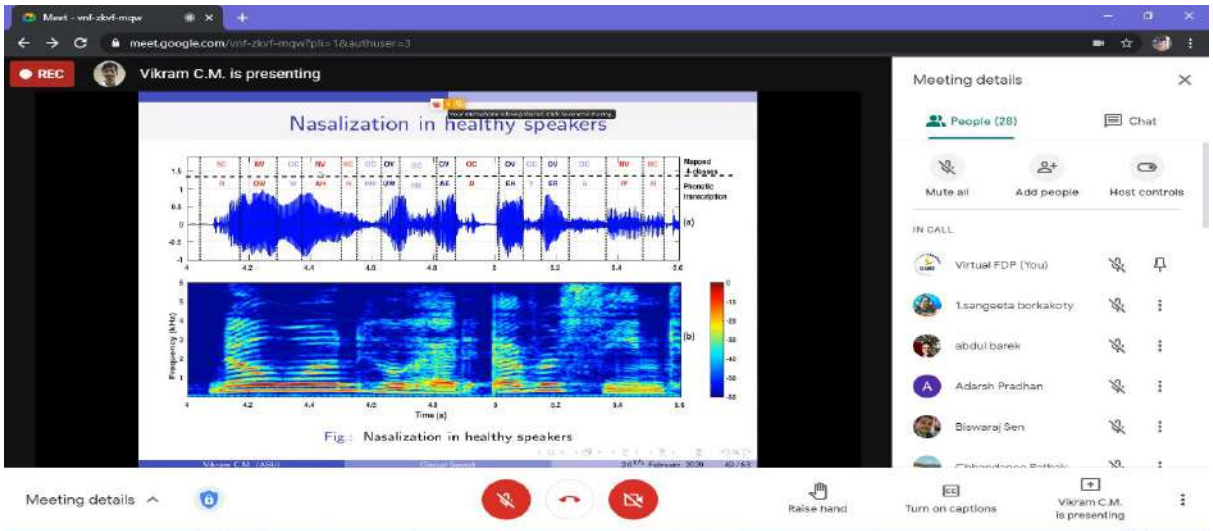


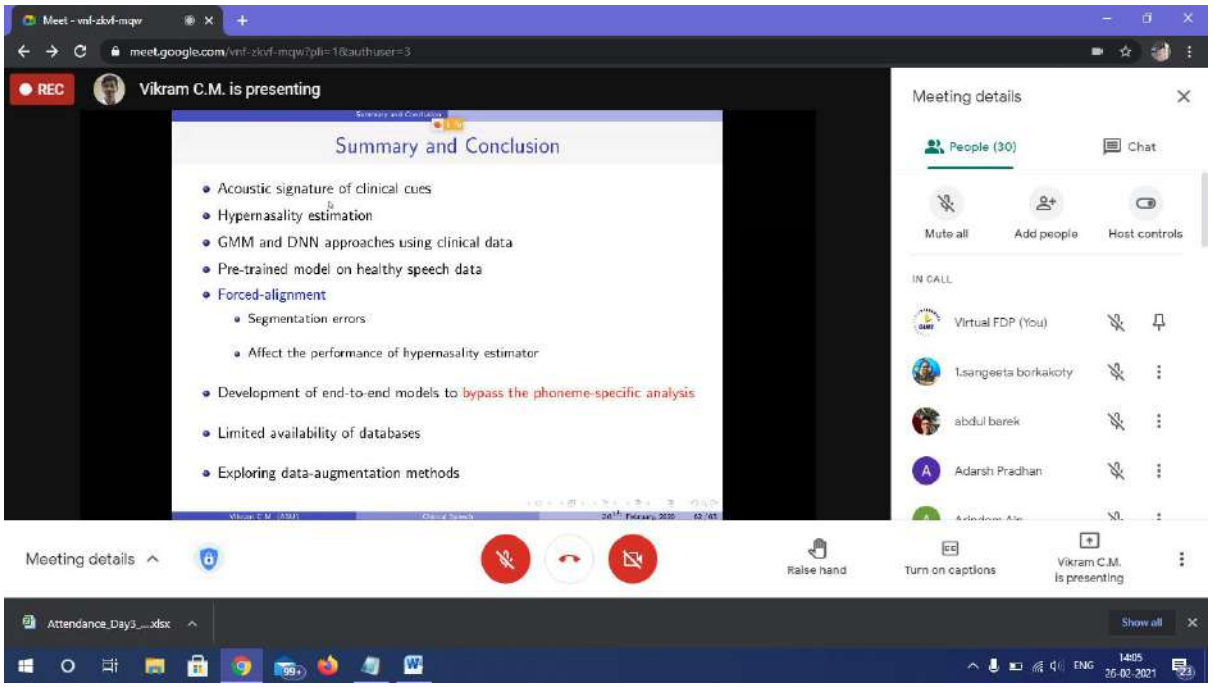

REC
Vikram C.M. is presenting
Anatomy of speech production system
Oral cavity
Velum
Pharynx
Epiglottis
Esophagus
Trachea
Nasal Cavity
Palate
Lips
Tongue
False Vocal Cords
True Vocal Cords
Rib Cage
Diaphragm
Abdomen
Vocal Tract
Larynx
Lungs
Fig : Cross sectional view of speech production system
Meeting details
People (16)
Chat
Pulak Dutta
Sandip Bordoloi
Sishir Kalita
UDEEPTA RAJ BRAHMA
Vikash Singh
Vikram C.M.
Vikram C.M. Presentation
Virtual FDP
Meeting details
Raise hand
Turn on captions
Vikram C.M. is presenting


REC
Vikram C.M. is presenting
Motor speech disorders
Lack of neuro-muscular co-ordination. Normal, Dysarthria
Parkinson's disease
Cerebral palsy
Huntington's disease
Fig : Brain
Meeting details
People (26)
Chat
Mute all
Add people
Host controls
IN CALL
Virtual FDP (You)
Adarsh Pradhan
Arindom Ain
Biswaraj Sen
Chhandanee Pathak
Meeting details
Raise hand
Turn on captions
Vikram C.M. is presenting


REC
Vikram C.M. is presenting
Conventional Assessment Methods
Naso endoscopy
Nasometer
Perceptual
Imaging techniques (X-ray)
Meeting details
People (32)
Chat
Mute all
Add people
Host controls
IN CALL
Virtual FDP (You)
Tsangeeta borkakoty
abdul barek
Adarsh Pradhan
Arindom Ain
Meeting details
Raise hand
Turn on captions
Vikram C.M. is presenting


Meet - vnf-zkvf-mqw
meet.google.com/vnf-zkvf-mqw?pli=1&authuser=3
REC
Vikram C.M. is presenting
Acoustic signature of hypernasality
/p/
/t/
/k/
Phonation
Vowel space area
N
M
MS
(a)
(b)
(c)
(d)
Fig.: Boxplots (N-normal, M-mild, and MS-moderate-severe)
Meeting details
People (31)
Chat
abdul barek
Adarsh Pradhan
Arindom Ain
Biswaraj Sen
Chhandanee Pathak
Dr Manashita Borah
Dr. Minakshi Gogoi
Meeting details
Raise hand
Turn on captions
Vikram C.M. is presenting


Meet - vnf-zkvf-mqw
meet.google.com/vnf-zkvf-mqw?pli=1&authuser=3
REC
Vikram C.M. is presenting
Nasalization in healthy speakers
Fig.: Nasalization in healthy speakers
Meeting details
People (28)
Chat
Mute all
Add people
Host controls
IN CALL
Virtual FDP (You)
1.sangeeta borkakoty
abdul barek
Adarsh Pradhan
Biswaraj Sen
Meeting details
Raise hand
Turn on captions
Vikram C.M. is presenting


Meet - vnf-zkvf-mqw
meet.google.com/vnf-zkvf-mqw?pli=1&authuser=3
REC
Vikram C.M. is presenting
Summary and Conclusion
Acoustic signature of clinical cues
Hypernasality estimation
GMM and DNN approaches using clinical data
Pre-trained model on healthy speech data
Forced-alignment
Segmentation errors
Affect the performance of hypernasality estimator
Development of end-to-end models to bypass the phoneme-specific analysis
Limited availability of databases
Exploring data-augmentation methods
Meeting details
People (30)
Chat
Mute all
Add people
Host controls
IN CALL
Virtual FDP (You)
1.sangeeta borkakoty
abdul barek
Adarsh Pradhan
Meeting details
Raise hand
Turn on captions
Vikram C.M. is presenting
Attendance_Day3_...xlsx
Show all

Day 4: 27 February 2021
Session 1 (10AM to 11:30AM)

For this session we had DR. PRITHWIJIT GUHA, ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRONICS AND ELECTRICAL ENGINEERING IIT GUWAHATI

About the talk:

Sir has delivered talk on "TELEVISION COMMERTIALIZATION USING NEURAL TREE"

Profile of the Resource Person:

Dr. Prithwijit Guha currently working as an Assistant Professor, Department of Electronics and Electrical Engineering, IIT, Guwahati. He has completed B.E. from Jadavpur University IN 1999. M.Tech, Indian Institute of Technology Kanpur IN 2001 AND Ph.D. from Indian Institute of Technology Kanpur in 2009.

EXPERIENCES:

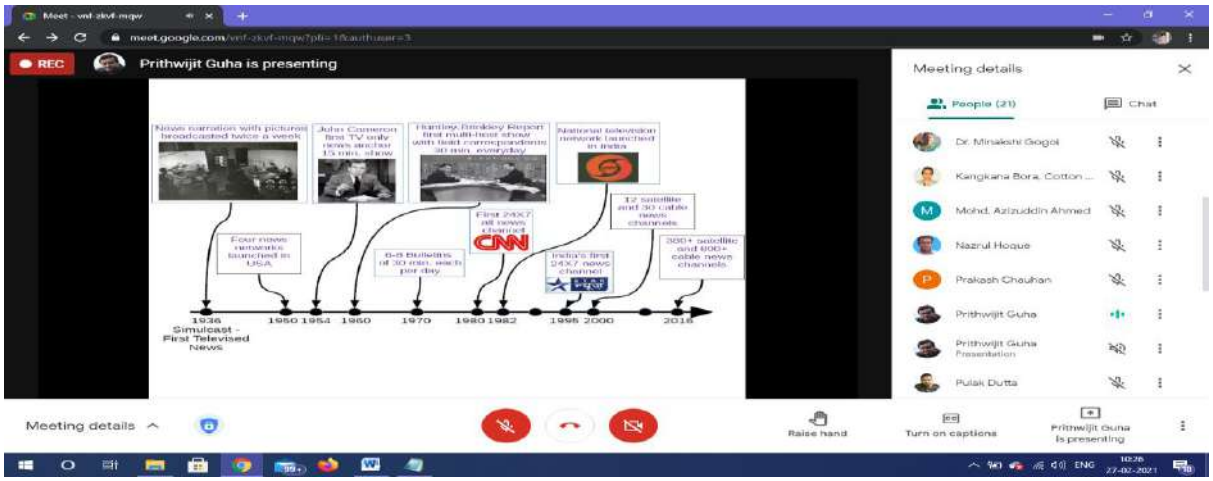
- He was a Visiting Faculty in Indian Institute of Technology Kanpur
- He was a Research Scientist in Tata Consultancy Services
- He was a Visiting Faculty, LNM Institute of Information Technology

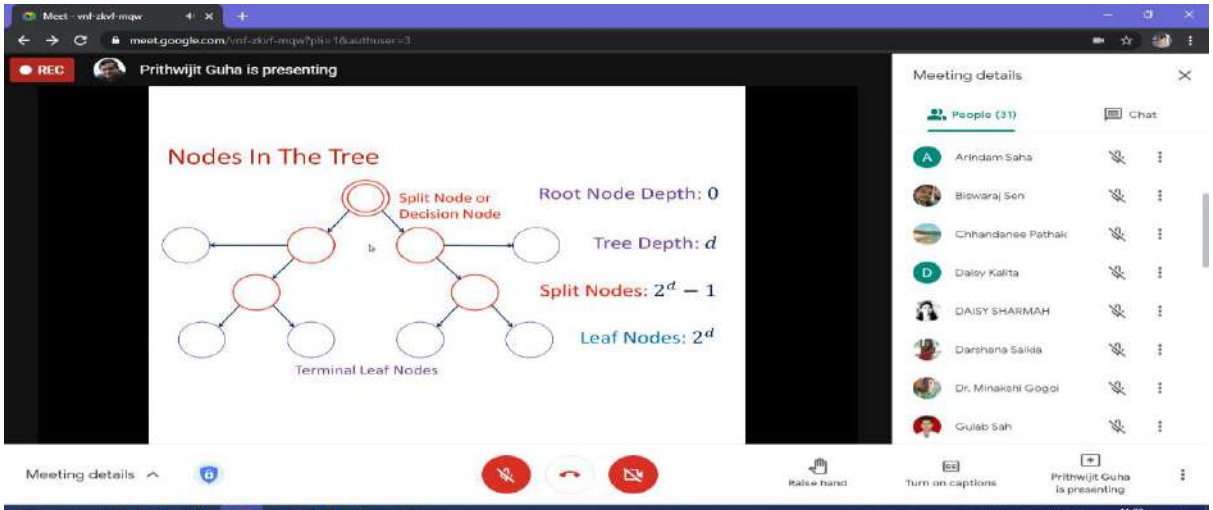
Research Area:
Computer Vision, Pattern Recognition, Signal Processing and Robotics.

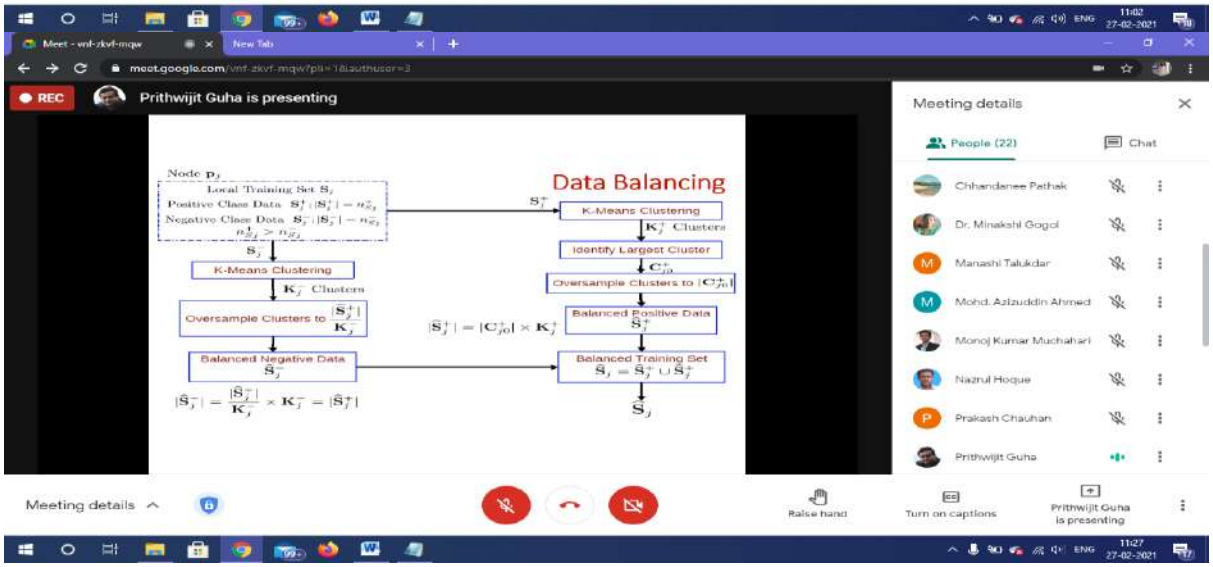
Summary of the talk:

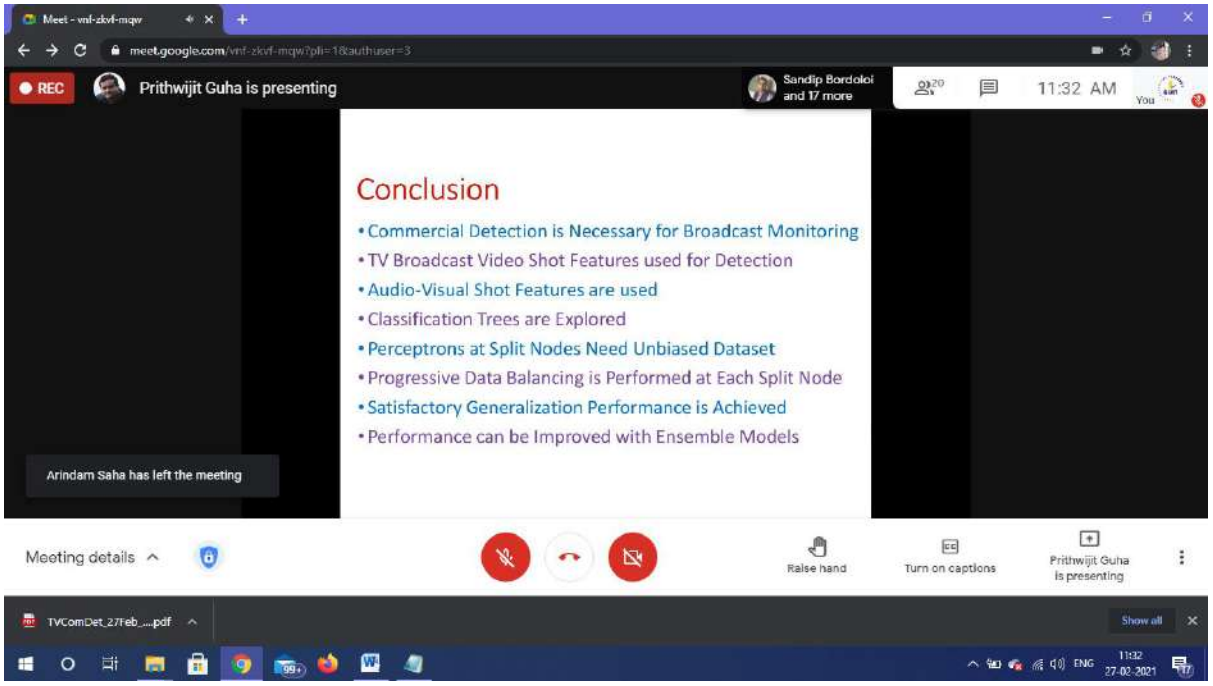
Sir has described about top down hierarchical partitioning, decision trees. Also explained about axis aligned tree construction etc.

Snapshots of session 1:




Prithwijit Guha is presenting
Nodes In The Tree
Split Node or Decision Node
Root Node Depth: 0
Tree Depth: d
Split Nodes: $2^d - 1$
Leaf Nodes: 2^d
Terminal Leaf Nodes
Meeting details
People (31)
Chat
Arindam Saha
Biswaraj Sen
Chhandanee Pathak
Daisy Kalita
DAISY SHARMAH
Darshana Saikia
Dr. Minakshi Gogoi
Gulab Sah
Meeting details
Raise hand
Turn on captions
Prithwijit Guha is presenting


Prithwijit Guha is presenting
Data Balancing
K-Means Clustering
Identify Largest Cluster
Oversample Clusters to
Balanced Positive Data
Balanced Negative Data
Balanced Training Set
Meeting details
People (22)
Chat
Chhandanee Pathak
Dr. Minakshi Gogoi
Manashi Talukdar
Mohd. Azizuddin Ahmed
Monoj Kumar Muchahari
Nazrul Hoque
Prakash Chauhan
Prithwijit Guha
Meeting details
Raise hand
Turn on captions
Prithwijit Guha is presenting


Prithwijit Guha is presenting
Sandip Bordoloi and 17 more
11:32 AM
Conclusion
• Commercial Detection is Necessary for Broadcast Monitoring
• TV Broadcast Video Shot Features used for Detection
• Audio-Visual Shot Features are used
• Classification Trees are Explored
• Perceptrons at Split Nodes Need Unbiased Dataset
• Progressive Data Balancing is Performed at Each Split Node
• Satisfactory Generalization Performance is Achieved
• Performance can be Improved with Ensemble Models
Arindam Saha has left the meeting
Meeting details
Raise hand
Turn on captions
Prithwijit Guha is presenting
TVComDet_27Feb_....pdf
Show all

Session 2

Afternoon Session (1 PM to 2:30 PM)

For this session we had DR. KANDARPA KUMAR SARMA, PROFESSOR, HEAD, DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING, GAUHATI UNIVERSITY

Profile of the Resource Person:

Dr. Kandarpa Kumar Sarma, currently Professor and Head, Department of Electronics and Communication Engineering, GUIST, Gauhati University specializes in mobile communication, soft computing, machine learning and antenna design.

Awards and Achievements

1. N. V. Gadadhar Memorial Award, Year: 2014, Awarding Organisation: Institution of Electronics and Telecommunication Engineers (IETE)
2. Member, IEEE Computational Intelligence Society Task Force on Deep Learning (http://deeplearning.math.unipd.it/people.html)
3. Editor in Chief, International Journal of Intelligent System Design and Computing, Inderscience, Switzerland and UK (http://www.inderscience.com/jhome.php?jcode=ijisdc)
4. Editor in Chief, WSEAS Transactions on Computers (http://wseas.org/wseas/cms.action?id=4026)
5. Editor-in-Chief, International Journal of Circuits and Electronics (http://www.iaras.org/iaras/journals/ijce#editorial-board)
6. Associate Editor, WSEAS Transactions on Electronics (http://wseas.org/cms.action?id=13363)

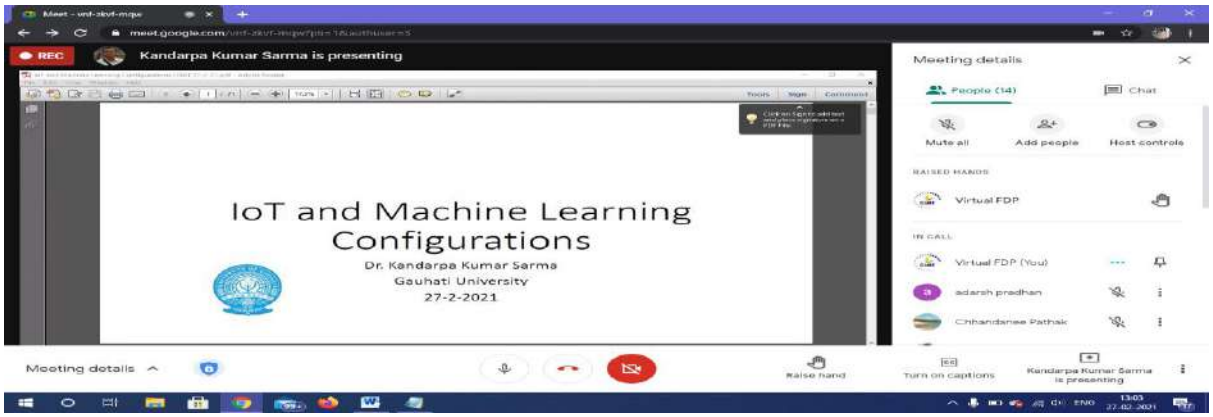
Research areas: Mobile Communication, Soft Computing, Machine Learning, Deep Learning, Speech Processing, Antenna Design

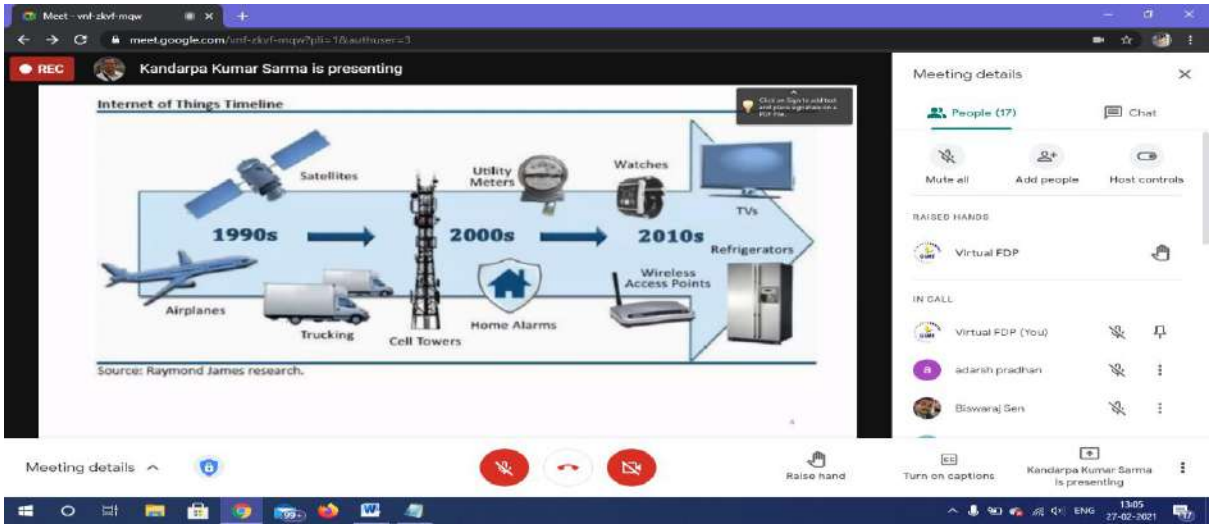
About the talk:

Sir has delivered talk on "**IoT AND MACHINE LEARNING CONFIGURATION**".

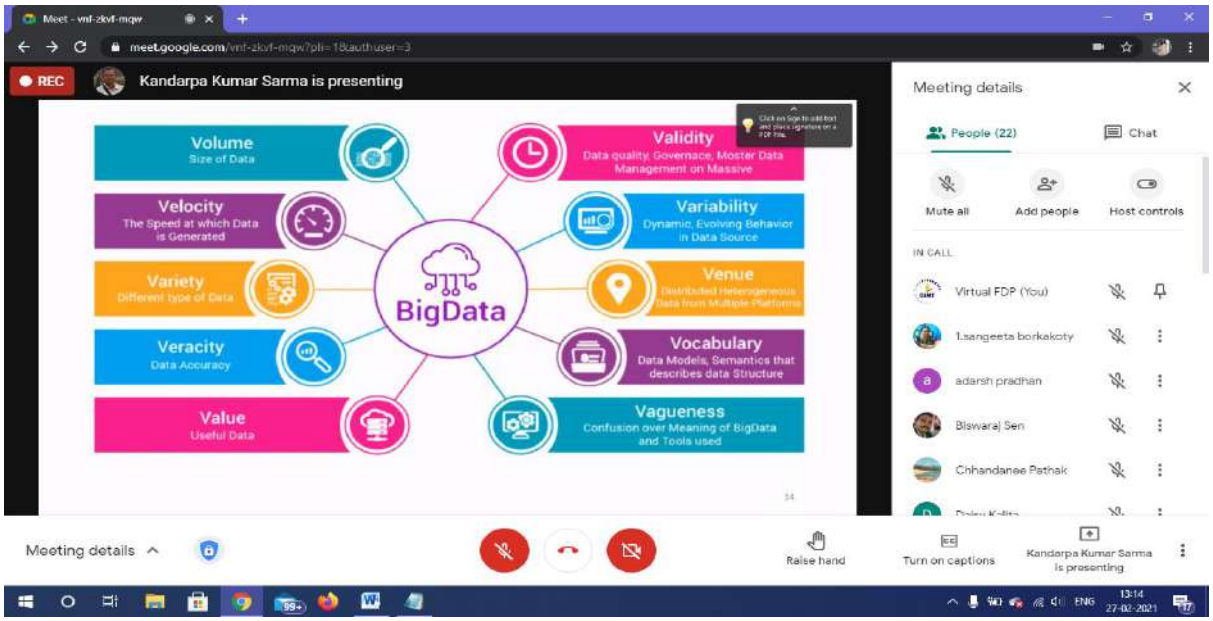
Summary of the talk: Sir has discussed about various applications of IoT, real life signals and sequencing vanilla recurrent cell, LSTM, Deep Learning etc.

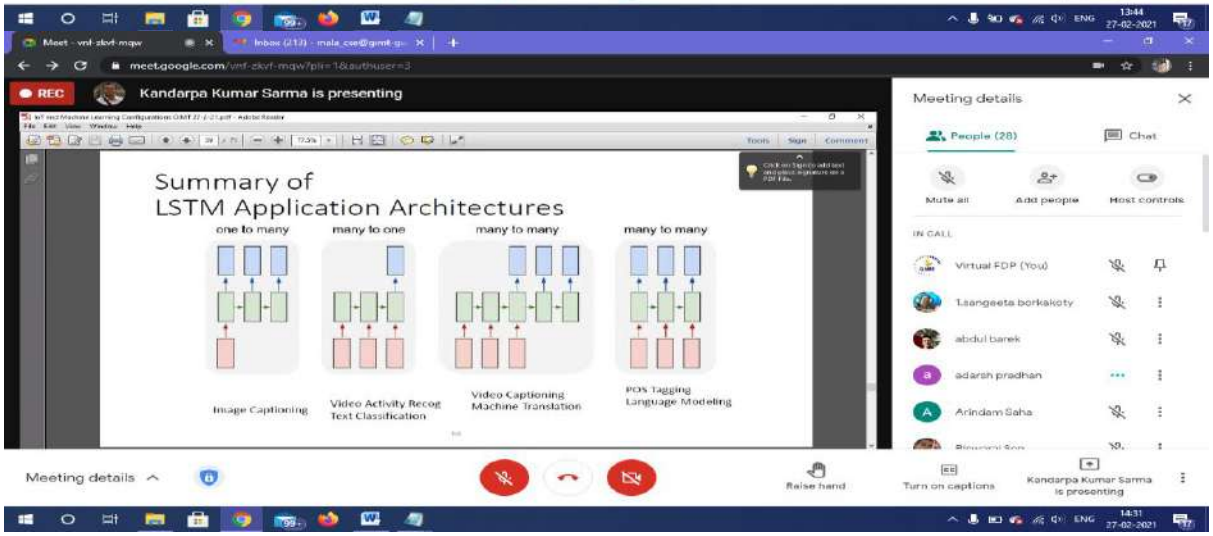
Snapshots of session 2:




REC
Kandarpa Kumar Sarma is presenting
Internet of Things Timeline
Satellites
Utility Meters
Watches
TVs
1990s
2000s
2010s
Refrigerators
Wireless Access Points
Airplanes
Trucking
Cell Towers
Home Alarms
Source: Raymond James research.
Meeting details
People (17)
Chat
Mute all
Add people
Host controls
RAISED HANDS
Virtual FDP
IN CALL
Virtual FDP (You)
adarsh pradhan
Biswaraj Sen
Meeting details
Raise hand
Turn on captions
Kandarpa Kumar Sarma is presenting


REC
Kandarpa Kumar Sarma is presenting
4. Capable Mobile Devices
Quad Core 1.5 GHz
128 GB Internal Memory
3 GB RAM
16 MP Camera
WiFi, GPS,
Meeting details
People (21)
Chat
Mute all
Add people
Host controls
RAISED HANDS
Virtual FDP
IN CALL
Virtual FDP (You)
adarsh pradhan
Meeting details
Raise hand
Turn on captions
Kandarpa Kumar Sarma is presenting


REC
Kandarpa Kumar Sarma is presenting
Volume
Size of Data
Velocity
The Speed at which Data is Generated
Variety
Different type of Data
Veracity
Data Accuracy
Value
Useful Data
BigData
Validity
Data quality, Governace, Moster Data Management on Massive
Variability
Dynamic, Evolving Behavior in Data Source
Venue
Vocabulary
Data Models, Semantics that describes data Structure
Vagueness
Confusion over Meaning of BigData and Tools used
Meeting details
People (22)
Chat
Mute all
Add people
Host controls
IN CALL
Virtual FDP (You)
adarsh pradhan
Biswaraj Sen
Chhandanee Pathak
Meeting details
Raise hand
Turn on captions
Kandarpa Kumar Sarma is presenting



Day 5: 1st March 2021

Session 1

Morning Session (10 AM to 11:30 AM)

For this session we had DR. UTPAL SHARMA, PROFESSOR, DEPT. OF COMPUTER SCIENCE AND ENGINEERING, TEZPUR UNIVERSITY

Profile of the Resource Person:

Utpal Sharma is a Professor in the Department of Computer Science and Engineering at Tezpur University. He had joined the University in 1998 as a lecturer. His work in the CSE areas of interest includes natural language processing, speech processing, compilers, and information systems. He has over 40 publications in various journals and conferences. He obtained his BE degree in CSE from Jorhat Engineering College, MS in Software Systems

from BITS Pilani, and PhD in CSE from Tezpur University. Before joining Tezpur University, he had worked in the field of telecommunication at CDoT New Delhi, and in developing CASE tools and commercial software in an IT firm at Kolkata. He also had a brief experience as a Guest Lecturer at NERIST at the beginning of his career.

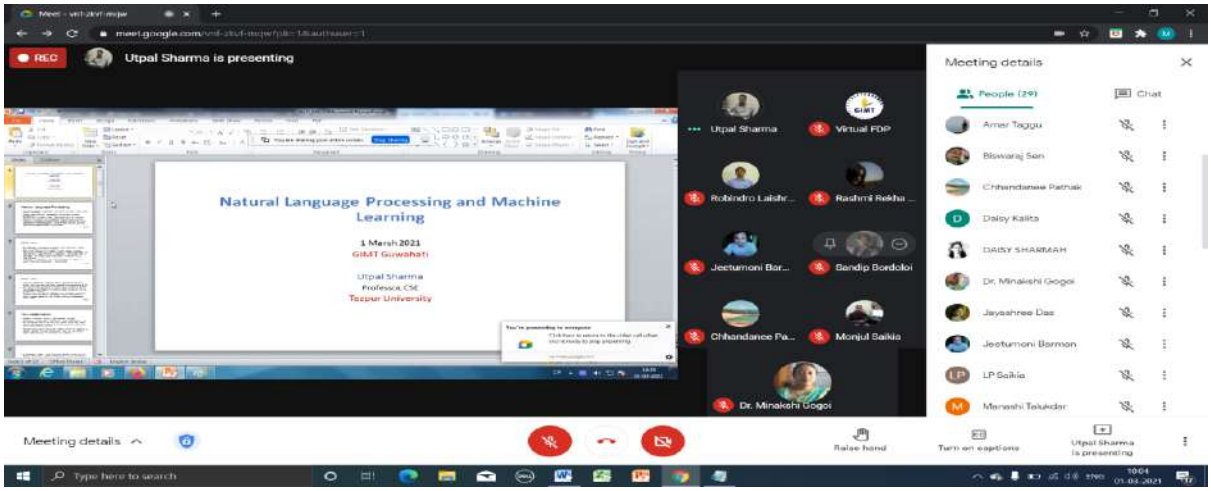
About the talk:

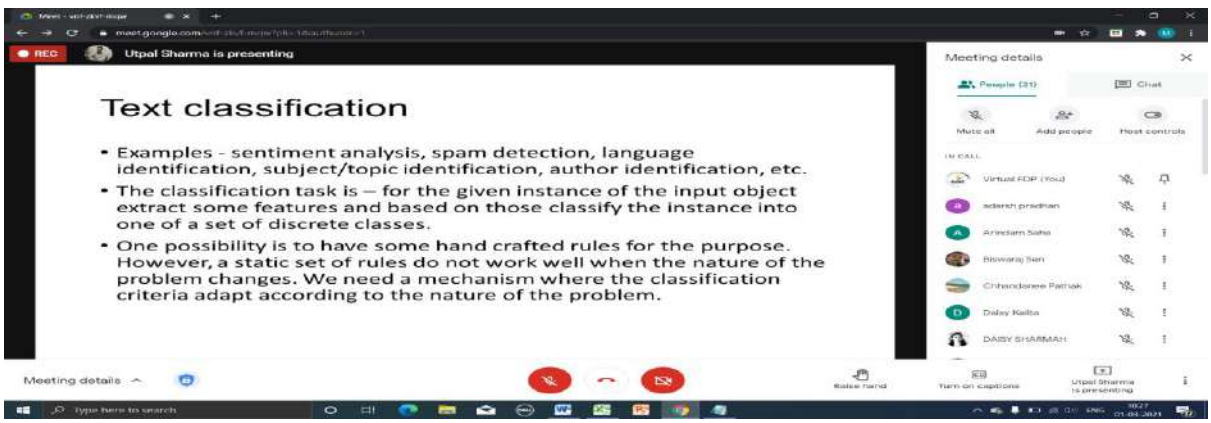
Sir has delivered talk on "NATURAL LANGUAGE PROCESSING AND MACHINE LEARNING".

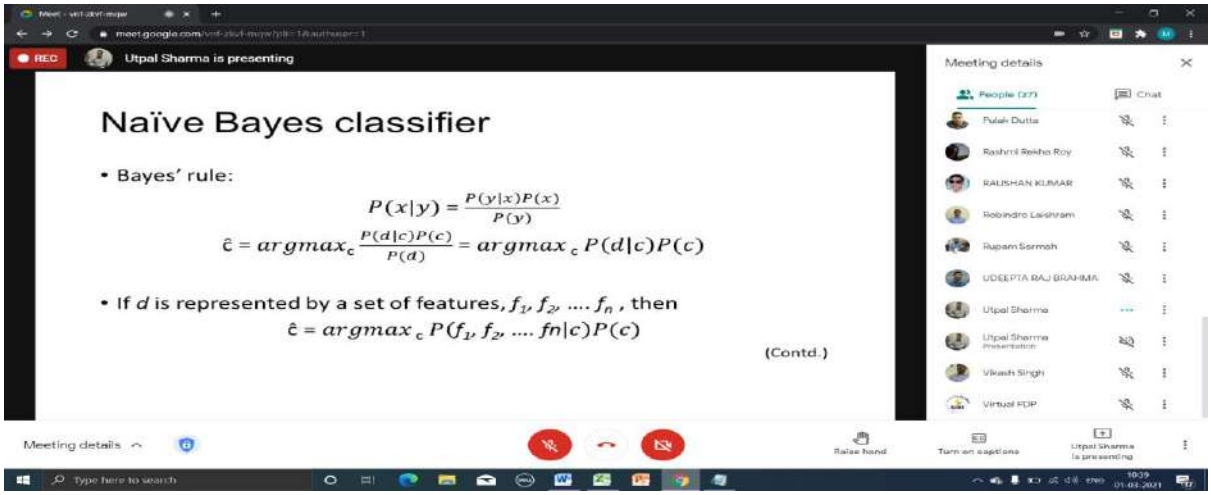
Summary of the talk:

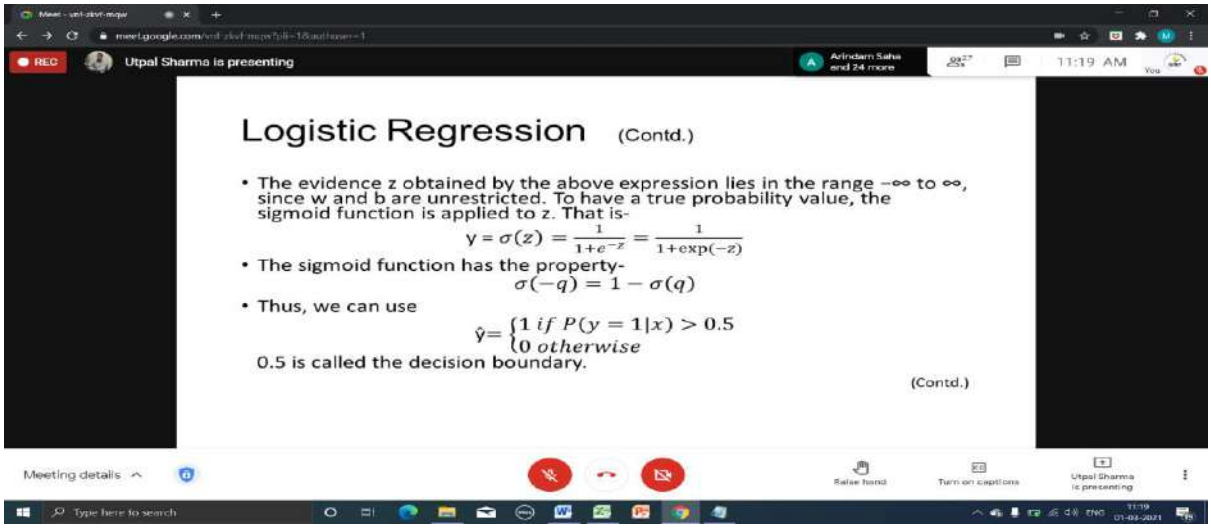
It is useful to know the scope and common applications of NLP, and the major tasks in NLP. Prominent early applications of computing mainly dealt with data that is suitably structured for computing. On the other hand, prominent domains today such as image processing signal processing and language processing, deal with natural input for which the inherent structure of the input information is not clear. For such domains, machine learning is a viable approach to obtaining useful outcome of the applications. The domain of natural languages presents some peculiar challenges due to ambiguity, some deep relationships between segments of the input and important role of persistent world knowledge. Nevertheless, machine learning is seen to be versatile to face many of these challenges.

Snapshots of Session 1:









Session 2

Afternoon Session (1 PM to 2:30 PM)

For this session we had DR. SANJIB KUMAR KALITA, ASSISTANT PROFESSOR, DEPT. OF COMPUTER SCIENCE, GAUHATI UNIVERSITY

Profile of the Resource Person:

Sir has done MCA from Assam Engineering College and PhD from GU in Speech Processing. Currently working as a Asst. Professor, Dept. of Computer Science, Gauhati University from 2012 – till date. Sir also worked as an Associate Professor, Dept. of Computer Science, and Krishna Kanta Handique State Open University from March 2017 to March 2018 on liean). Sir served as a Asst. Professor & Head, Dept. of Computer Science, GU Kokrajhar from (2009 - 2012). Also worked as a Asst. Professor & Head, Dept. of Computer Science, Handique Girls College, Guwahati from 2000 – 2009.

Area of Interest:

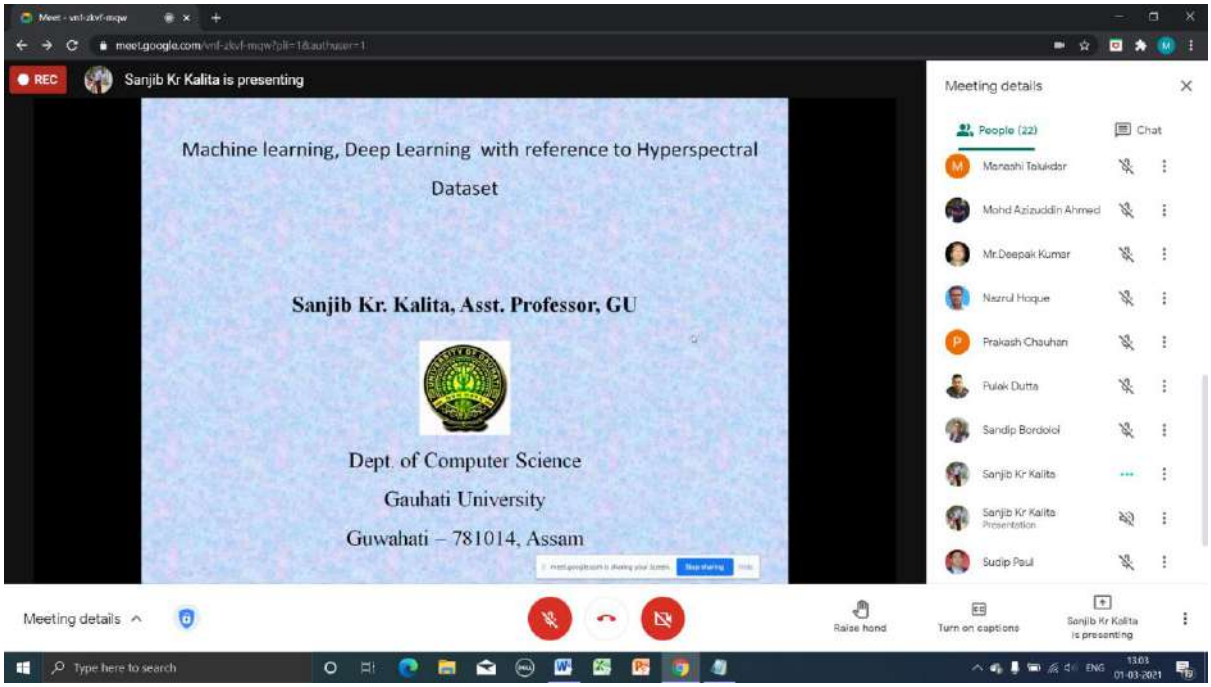
Speech Processing, Image Processing, Machine Learning, Deep learning

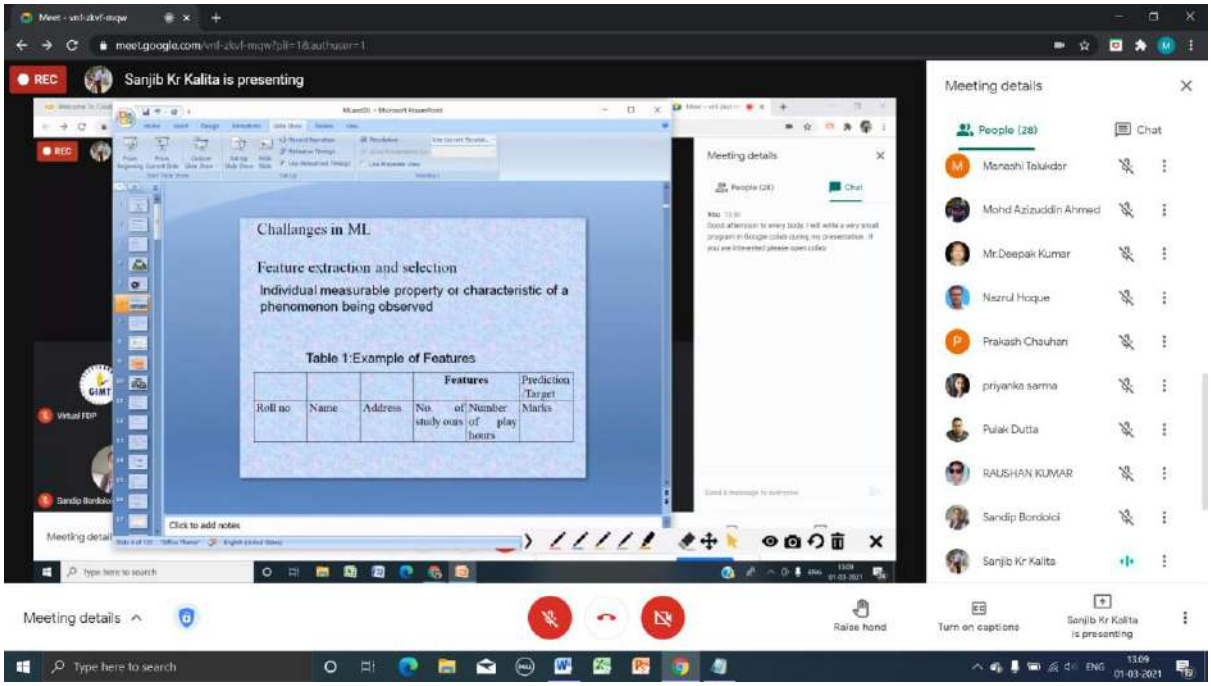
Published 2 books, Published around 75 papers (Journal + conference)

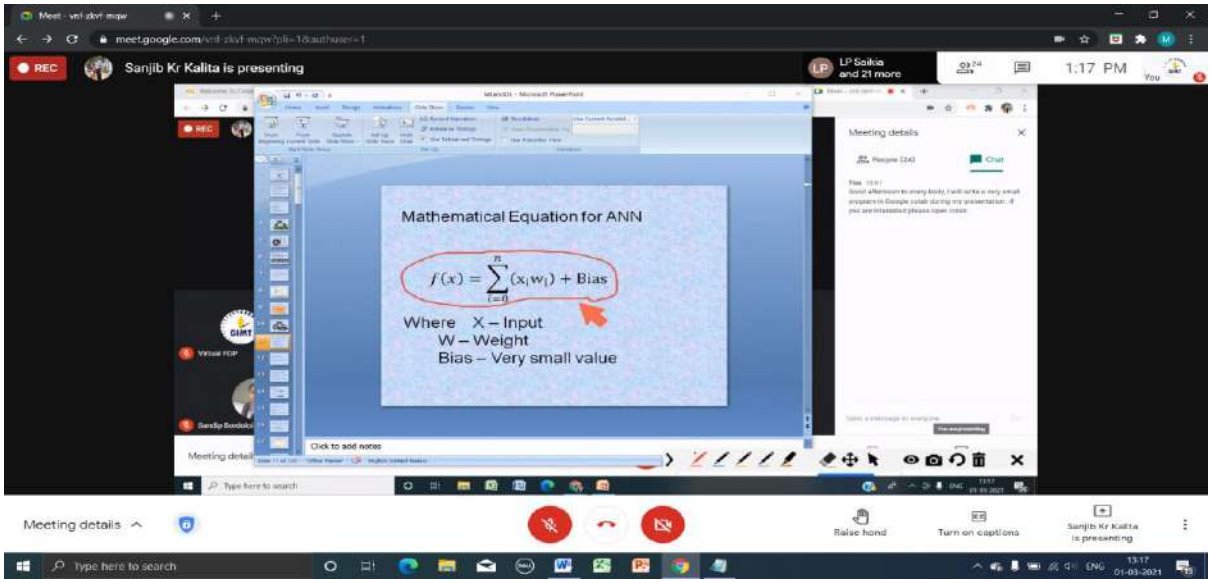
About the talk:
Sir has delivered talk on “DEEP LEARNING ON SATELLITE DATA”.

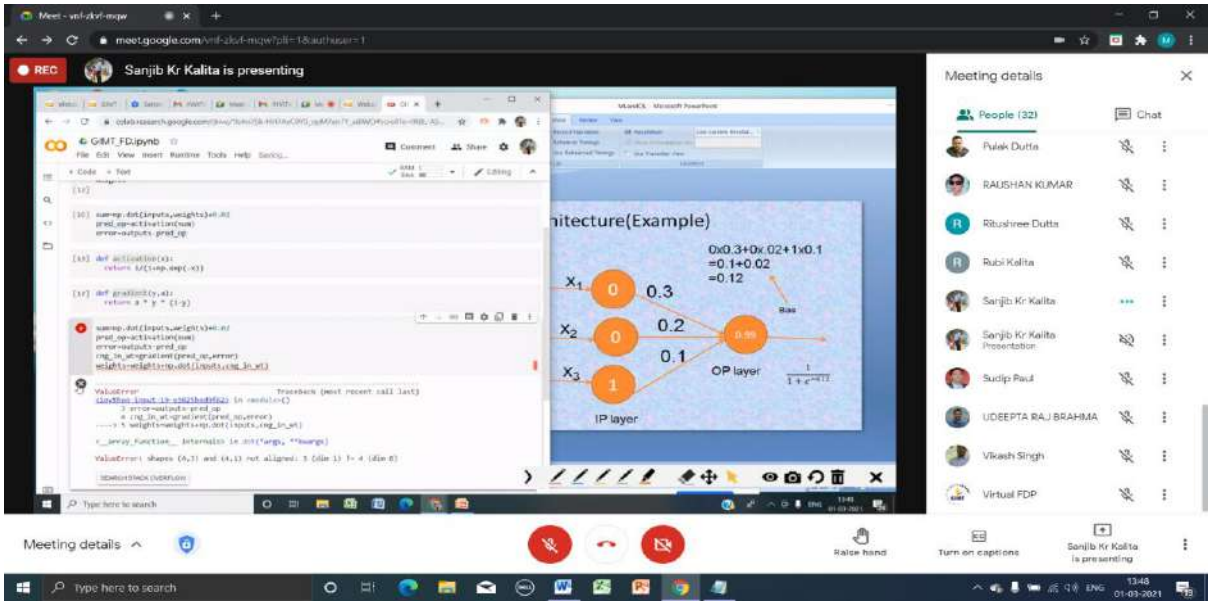
Summary of the talk:

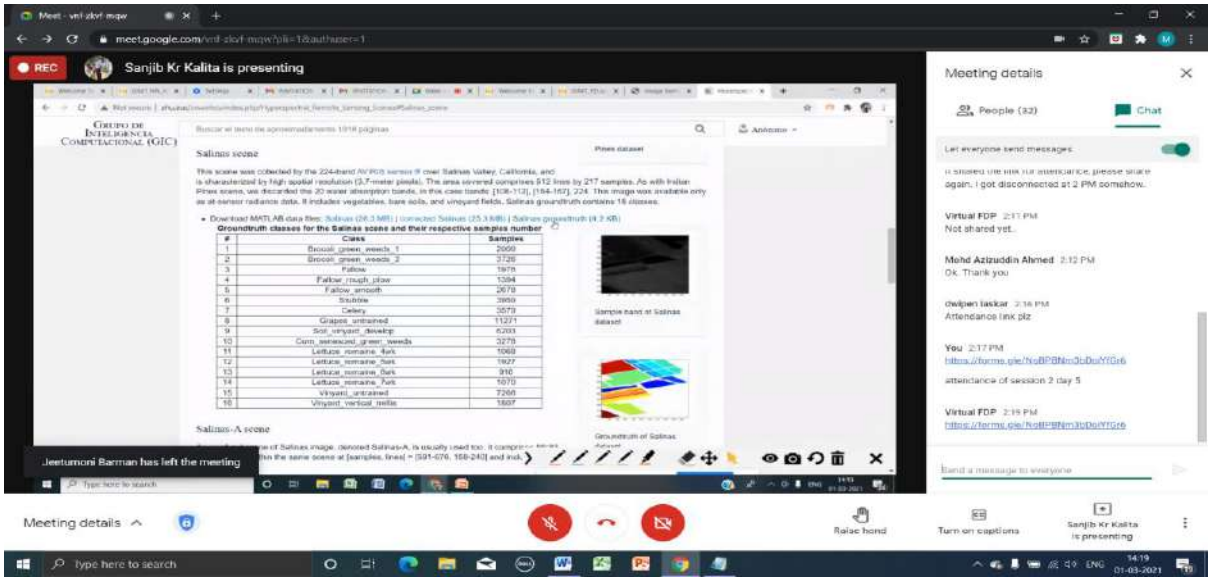
Snapshots of session 2:






Sanjib Kr Kalita is presenting
Mathematical Equation for ANN
$f(x) = \sum_{i=0}^{n} (x_i w_i) + \text{Bias}$
Where X – Input
W – Weight
Bias – Very small value
Meeting details


Sanjib Kr Kalita is presenting
Meeting details
People (32)
Chat
IP layer
OP layer
Meeting details


Sanjib Kr Kalita is presenting
Meeting details
People (32)
Chat
Salinas scene
Salinas-A scene
Jeetumoni Barman has left the meeting
Meeting details

REPORT

One Day FDP on

"CAREER READINESS AND EMPLOYABILITY SKILLS TRAINING"

UNDER TEQIP – III

28th December 2020

Organized by

ASSAM SCIENCE & TECHNOLOGY UNIVERSITY (ASTU)

In Collaboration with

SCHOLARS INSTITUTE OF TECHNOLOGY & MANAGEMENT (SITM)

Garoghuli (GoG) Guwahati - 781035

SITM

ASTU

One Day FDP on "***Career Readiness and Employability Skills Training***"

Under TEQIP- III

28th December 2020

OBJECTIVE

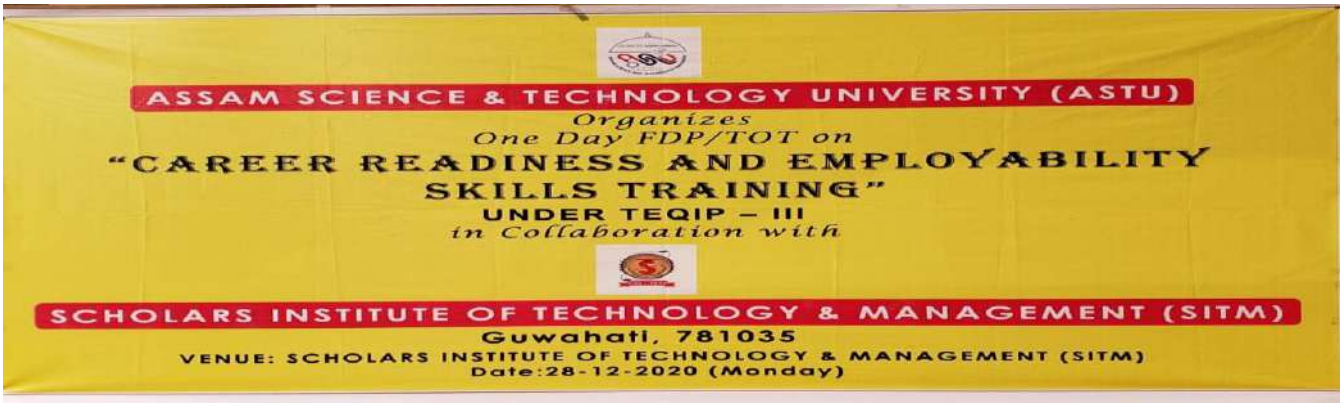
Project Objective: Career Readiness and Employability Skills Training or "Project CREST" is designed to assist students who would be graduating soon to develop razor-sharp Career Readiness and Employability skills to become Career Ready for achieving professional success. "Project CREST" will help new job aspirants to broaden their work horizons for gainful employment within a reasonable time frame by providing holistic and culturally competent employment assistance services.

Objective of FDP: In order to improve the performance of the faculty members in education, research and administration as well as augmenting organizational capacities and culture. The FDP versatility depicted the futuristic ambience of the developments by a technocrat.

The **vision** of the program was to discuss how to establish FDP, features that make FDP affective and outline the barriers to its successful implementation as well as the future visions.

Vision: To empower students with career readiness competencies to get into meaningful employment and to contribute to the society while building a rewarding career.

Mission: Project CREST will provide top-notch Career Readiness and Employability Skills training and need-based counselling, support, and care to help new job aspirants overcome employment barriers to make a successful transition from classroom to career.



SITM

ASTU

Program Schedule

Date & Day	Time 9:30 AM – 4:00 PM	Contents	Venue
28/12/2020 Monday	9:30 AM – 10:00 AM	Registration of participants and breakfast.	Seminar Hall (SH-1) Administrative Block, SITM
	10:00 AM – 10:30 AM	Inauguration, Lamp Lightening, Welcome Speech & Felicitation of Resource Person.	
	10:30 AM – 12:30 PM	Technical Session - I	
	12:30 PM – 1:10 PM	Lunch	
	1:15 PM – 3:45 PM	Technical Session - II	
	3:45 PM	Valedictory Session and Vote of Thanks	
	4:00 PM	Tea and End of the Program.	

SITM

ASTU

Snapshots from the FDP held on 28 December 2020 on "***CAREER READINESS AND EMPLOYABILITY SKILLS TRAINING***" under TEQIP - III

Lamp Lightening by Alay Das, Resource Person. Guest receiving the Traditional Gamusa and the Memento.

Jhumur Lodh, Director, SITM being felicitated with Traditional Gamusa and Memento. Inaugural Speech by Jhumur Lodh, Director, SITM. Followed by resource person Alay Das.

SITM

ASTU

Speech delivery on FDP programme by Jhumur Lodh, Director, SITM to the participants.

Resource Person Alay Das talking on important topics. Valedictory program and the group photo of the faculties with Alay Das, the Resource Person.

SITM

ASTU

ACKNOWLEDGEMENT

We sincerely thank one and all- both teaching & non-teaching staffs of SITM and the members of Assam Science & Technology University (ASTU). Without their help the FDP program on "Career Readiness and Employability Skills Training" under TEQIP – III would not have been successful.

****