Summary of the course report

The course titled "TEQIP-III Sponsored Short Term Course on Current Trends in Biomedical Signal and Image Processing was conducted on 20-22 October, 2020 in the Discipline of Electrical Engineering at IIT Indore through online mode using Google meet platform. This course was attended by total 67 participants. Out of 67 participants, 50 participants were faculty members from TEQIP institutes and 17 participants were faculty members from non-TEQIP institutes and students. The details related to the program schedule, participants, and screen shots, survey of the participants, links for conducting sessions for this program have been provided below.

1. Program schedule:

TEQIP-III Sponsored Short-Term Course on Current Trends in Biomedical Signal and Image Processing (20-22 October, 2020) at IIT Indore

Program Schedule

20.10.2020	9:15 AM-10 AM (Inaugural Ceremony) Chief Guest: Professor Anand Parey, Dean of Resources Generation (IIT Indore)	10 AM -12 PM Talk on Fundamentals of Biomedical Signals Speaker: Professor Prashant Bansod (SGSITS Indore)	12 PM -02 PM Talk on Image Analysis Techniques and Medical Applications Speaker: Professor Vivek Kanhangad (IIT Indore)	03 PM -05 PM Talk on Time-Frequency Analysis Techniques Speaker: Professor Ram Bilas Pachori (IIT Indore)	-
21.10.2020	-	10 AM -12 PM Talk on Automated Methods for Classification of EEG Signals Speaker: Professor Ram Bilas Pachori (IIT Indore)	12 PM -02 PM Talk on Deep Learning for Biomedical Signal and Image Processing Speaker: Professor Deepak Ranjan Nayak (MNIT Jaipur)	03 PM -05 PM Talk on Automated Methods for Classification of ECG Signals Speaker: Professor Ram Bilas Pachori (IIT Indore)	-
22.10.2020	-	10 AM -12 PM Talk on Fourier Decomposition based Methods for Biomedical Signal Processing Speaker: Professor Pushpendra Singh (NIT Hamirpur)	12 PM -02 PM Talk on Fractional Filters for Medical Image Processing Speaker: Professor Rajesh Kumar Pandey (IIT (BHU) Banaras)	03 PM – 05 PM Internet of Medical Things and Their Challenges Speaker: Professor M. Sabarimalai Manikandan (IIT Bhubaneswar)	5:00 PM-6:00 PM (Valedictory Function and Feedback Session) Chief Guest: Professor Eswara Prasad Korimilli, Coordinator TEQIP (IIT Indore)

2. List of participants:

Faculty members from TEQIP institutes:

S.N.	Name	Institute	Email
1	Puneet Kumar Jain	National Institute of Technology Rourkela, Odisha	jainp@nitrkl.ac.in
2	Abhay Upadhyay	Institute of Engineering and Technology, Bundelkhand University, Jhanshi	abhayragav24@gmail.com
3	Sudhir Kumar Gupta	Harcourt Butler Technical University (Formerly HBTI), Kanpur, Uttar Pradesh-208002	urwithsudhirkg@gmail.com
4	Hemant Dangi	Samrat Ashok Technological Institute (Engg. College)	dangi.hemant@gmail.com
5	S. A. Malik	Islamic University of Science and Technology, Awantipora	malikshakeel3522gmail.com
6	Sanjay Agrawal	VSSUT Burla	sagrawal_etc@vssut.ac.in
7	Hariharan Muthusamy	National Institute of Technology, Srinagar (Garhwal)-246174, Uttrakhand, India.	hariharanm@nituk.ac.in
8	Deobrat Singh	MITS Gwalior	deobratsingh10@gmail.com
9	Kuldeep Yadav	Bhagalpur College of Engineering Bhagalpur, Bihar-813210	kuldeepyadav716@gmail.com
10	Nidhish Antony	Dept. of Electronics & Communication Engineering, Dibrugarh University Institute of Engineering & Technology (DUIET), Dibrugarh - 786004 Assam	nidhishantonypala@gmail.com
11	Atul Kumar Dwivedi	Bundelkhand Institute of Engineering and Technology, Jhansi	akd@bietjhs.ac.in
12	Farukh Hashmi Mohammad	NIT Warangal, Warangal-506004, India.	mdfarukh@nitw.ac.in
13	Dilip Kumar Sharma	Ujjain Engineering College, Ujjain	drdilipsharma72@gmail.com
14	Krishna Gopal Kirar	SATI Vidisha	kgkirar.ei@satiengg.org
15	Golam Imran Hussain	Jorhat Institute of Science and Technology, Jorhat	hussain.imran55@gmail.com

16	Rajni Maurya	MITS Gwalior	rajni.sch@mitsgwalior.in
17	Dr. Abhishek K. Sah	SGSITS Indore	abhisheksah9@gmail.com
18	Shiwangi Mishra	Jabalpur Engineering College, Jabalpur	m.shiwangi@iiitdmj.ac.in
19	Onkar Singh	Gaya Engineering College, Gaya	onkar122@gmail.com
20	Narendra Mahawar	SATI Vidisha	nmahawar03@gmail.com
21	Priyanka Dalal	Guru Jambheshwar University of Science and Technology, Hisar (Haryana)	priyanka.dalal17@gmail.com
22	Satyender Jaglan	National Institute of Technology, Kurukshetra	jaglan86@gmail.com
23	Pradeep Rusiya	UEC, Ujjain	pradeep.rusiya@uecu.ac.in
24	Hemant Kumar Meena	MNIT Jaipur	hmeena.ee@mnit.ac.in
25	Dinesh Kumar Atal	DCR University of Science and Technology, Murthal, Sonipat	dineshatal.bme@dcrustm.org
26	Vibha Bhatnagar	SGSITS Indore	bhatnagarvibha09@gmail.com
27	Aviral Mishra	NIT Jalandhar	mishraa@nitj.ac.in
28	Sangeeta Nakhate	MANIT Bhopal	sanmanit@gmail.com
29	Amit Naik	SGSITS Indore	amitnaik12@gmail.com
30	Devendra Shakya	SATI Vidisha	dkshakya@satiengg.org
31	K.K. Sharma	SGSITS Indore	kkssgs@gmail.com
32	Pramod Jain	SGSITS Indore	jainpramod1@gmail.com
33	S. Esakkirajan	PSG College of Technology Coimbatore-641 004.	ser.ice@psgtech.ac.in
34	Arun Rayakwar	SGSITS Indore	arunrayakwar@gmail.com

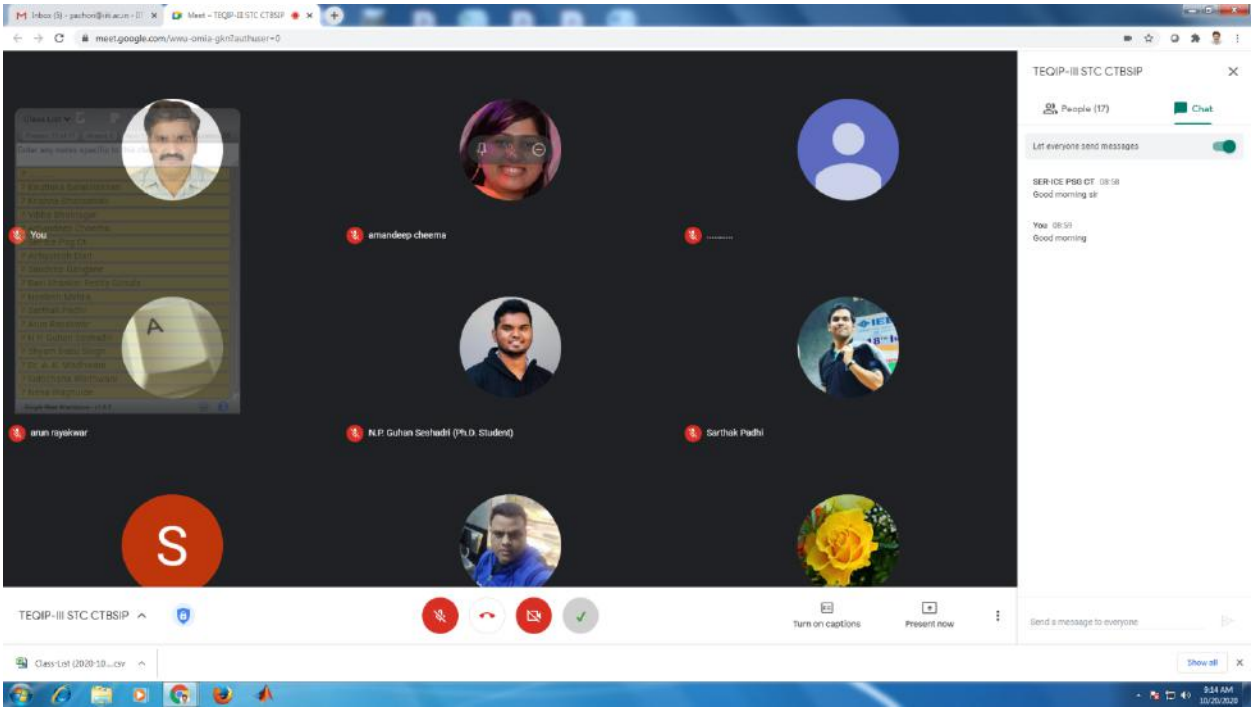
35	Rashmi Maharana	SGSITS Indore	rashmi.iter@yahoo.com
36	Ram Naresh Pal	THDC – IHET New Tehri, Uttrakhand	nareshpal2010@gmail.com
37	Sanjay Kumar	TIET Patiala	sanjay.kumar@thapar.edu
38	Achyutesh Dixit	MIT, Muzaffarpur	acdixit55@gmail.com
39	A. K. Wadhwani	MITS Gwalior	akwadhwani@mitsgwalior.in
40	Ravi Jatola	SGSITS Indore	ravijatola@yahoo.com
41	Rohtash Dhiman	DCRUST MURTHAL HARYANA	pawanpanchal169@rediffmail.com
42	Chandra Shekhar Verma	IET Dr. RMLAU Ayodhya UP	chandra1em@gmail.com
43	Saiyed Salim Sayeed	Dr B R Ambedkar Institute Of Technology Port Blair, Andaman & Nicobar Island, India-744103	saiyedsalimsayeed@gmail.com
44	Sunil Hirekhan	GEC Aurangabad	hirekhansunil@yahoo.com
45	Neelesh Mehra	SATI Vidisha	neeleshmehra@gmail.com
46	Ganga Dhandapani	NIT Nagaland	gangaadhan@gmail.com
47	Amit Baghel	Jabalpur Engineering College, Jabalpur, MP	abaghel@jecjabalpur.ac.in
48	Yogesh Sariya	SGSITS Indore	yogesh.sariya1@gmail.com
49	Sulochana Wadhwani	MITS Gwalior	sulochana_wadhwani@mitsgwalior.in
50	RC Gurjar	SGSITS Indore	rcgurjar79@rediffmail.com

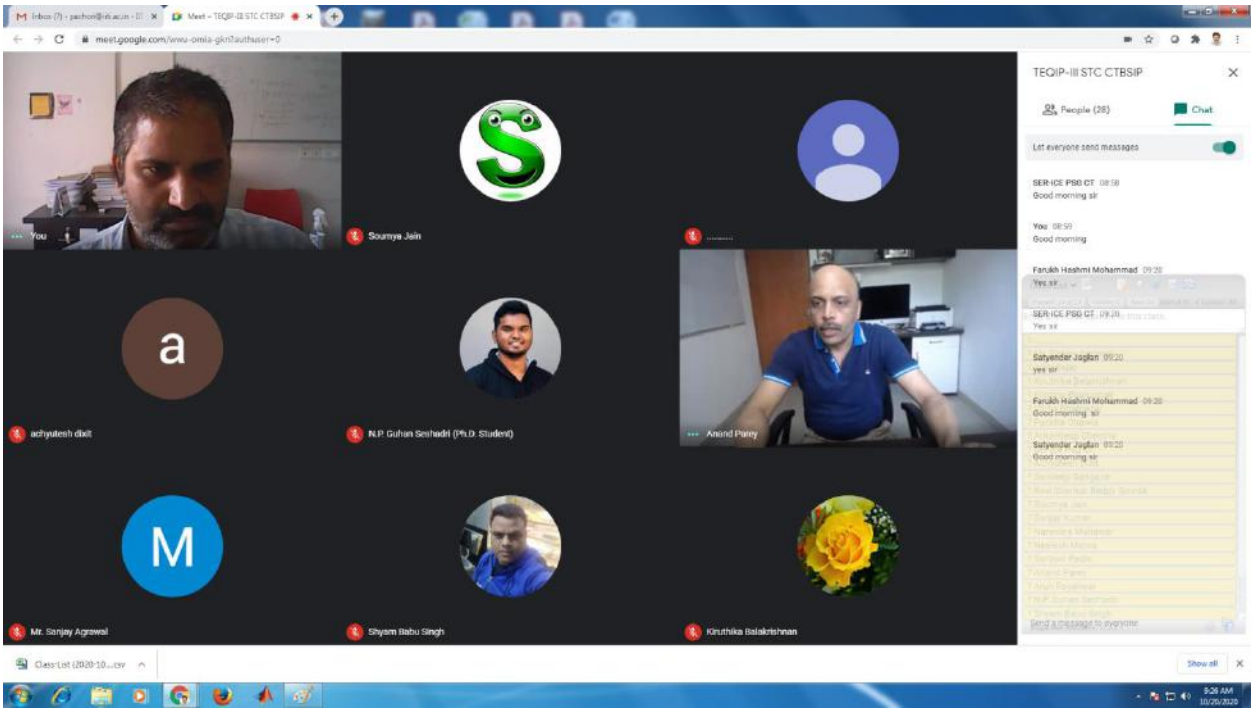
Other participants:

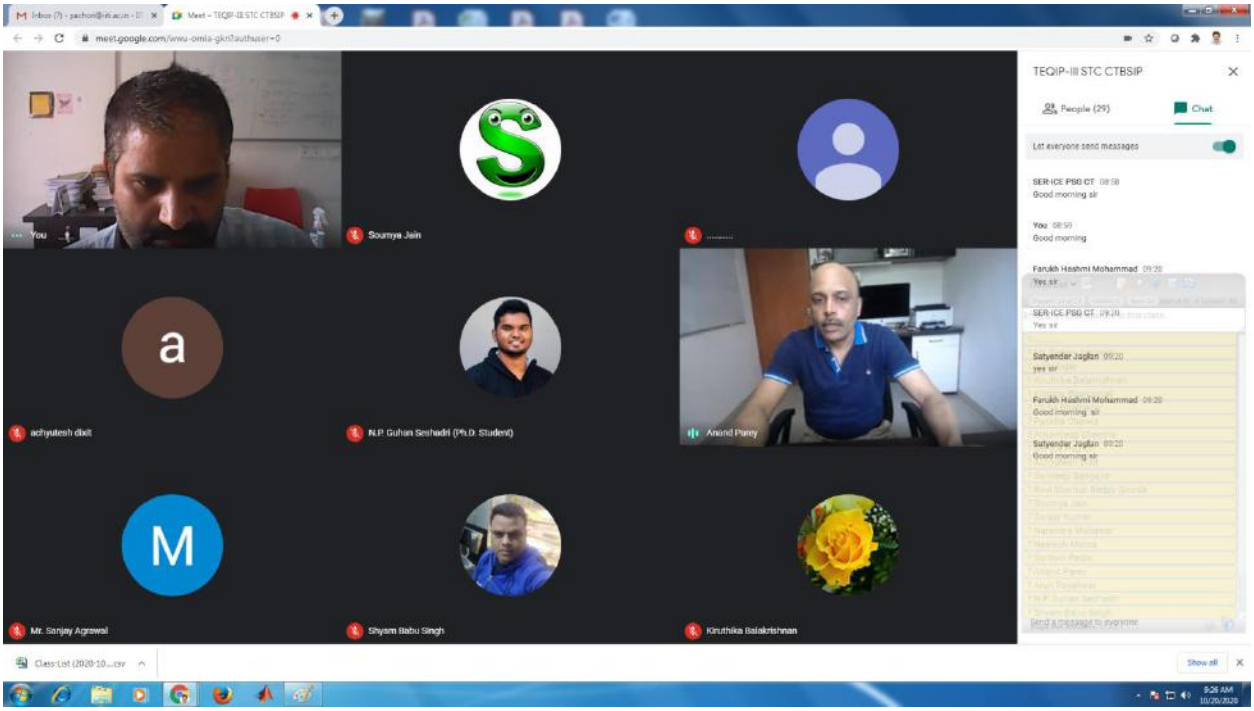
S.N.	Name	Institute	Email	Amount
1	Tahir Khan	MANIT Bhopal	tahir.manit@gmail.com	2000
2	Debarati	IIIT D&M,	bhattacharje.d	2000

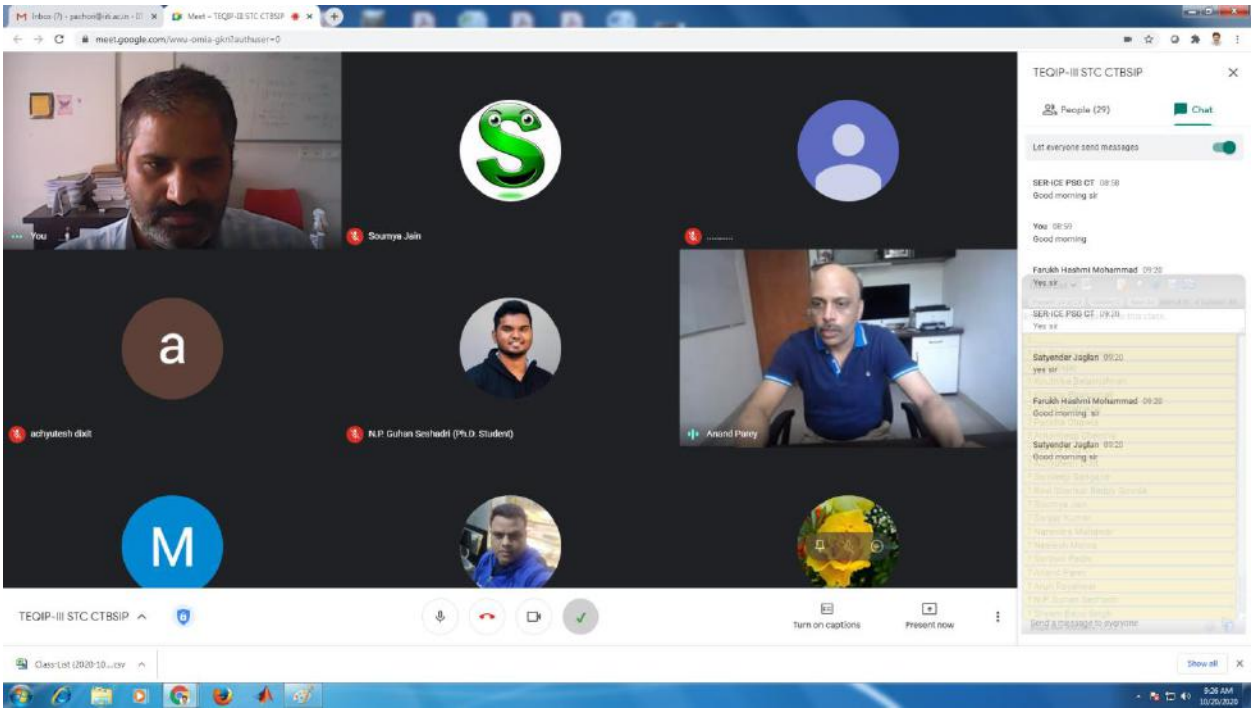
	Bhattacharjee	Kancheepuram, Chennai, India	ebarati@gmail.com	
3	G. Ravi Shankar Reddy	CVR COLLEGE OF ENGINEERING	ravigosula_ece39@yahoo.co.in	5000
4	Kiruthika Balakrishnan	M. Kumaraswamy Engineering College	bkiruthikaece@gmail.com	2000
5	Aditi Bajaj	TIET Patiala	bajajaditi1@gmail.com	2000
6	Krishna Bhanushali	IIT Indore	ee180002029@iiti.ac.in	2000
7	N.P. Guhan Seshadri	NIT Raipur	npgseshadri.phd2017.bme@nitrr.ac.in	2000
8	Amandeep Cheema	TIET Patiala	cheema.amandeep09@gmail.com	2000
9	Neha Waghulde	Dr. D. Y. Patil Institute of Technology, Pimpri, Pune – 411018	nehawaghulde006@gmail.com	2000
10	Gajendra Kumar	UIT RGPV Bhopal	gajendrakumarahirwar@gmail.com	2000
11	Shyam Babu Singh	MITS Gwalipr	itm.shyam@gmail.com	2000
12	Parikha Arora	Guru Nanak Dev University Amritsar	parikhaarora@gmail.com	2000
13	Sudip Paul	North Eastern Hill University	sudip.paul.bhu@gmail.com	5000
14	Soumya Jain	NIT Raipur	soumyaj2@gmail.com	2000
15	Sandeep Gangane	MIT Ujjain	srgangane@gmail.com	5000
16	Mayuri Deshmukh	SSBTs COET Bambhori Jalgaon Maharashtra	mtd.deshmukh@gmail.com	2000
17	Sarthak Padhi	IIIT Bhubaneswar	psarthak36@gmail.com	2000

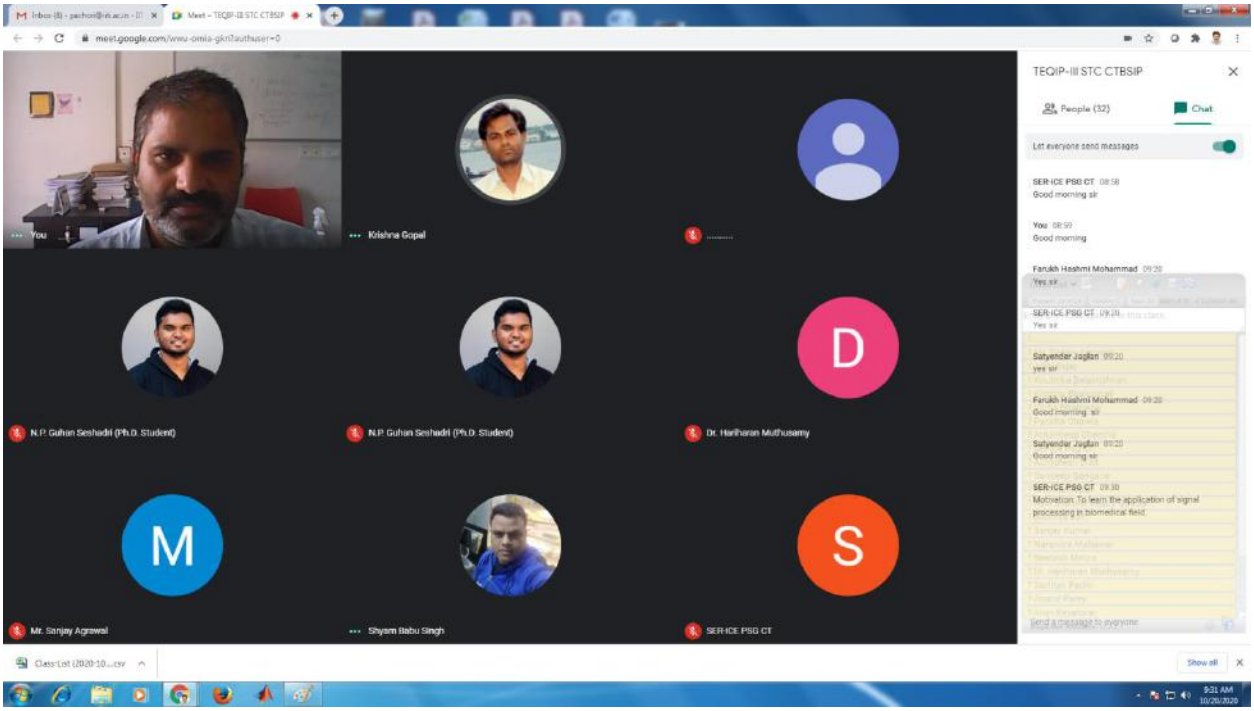
3. Screen shots of the program:

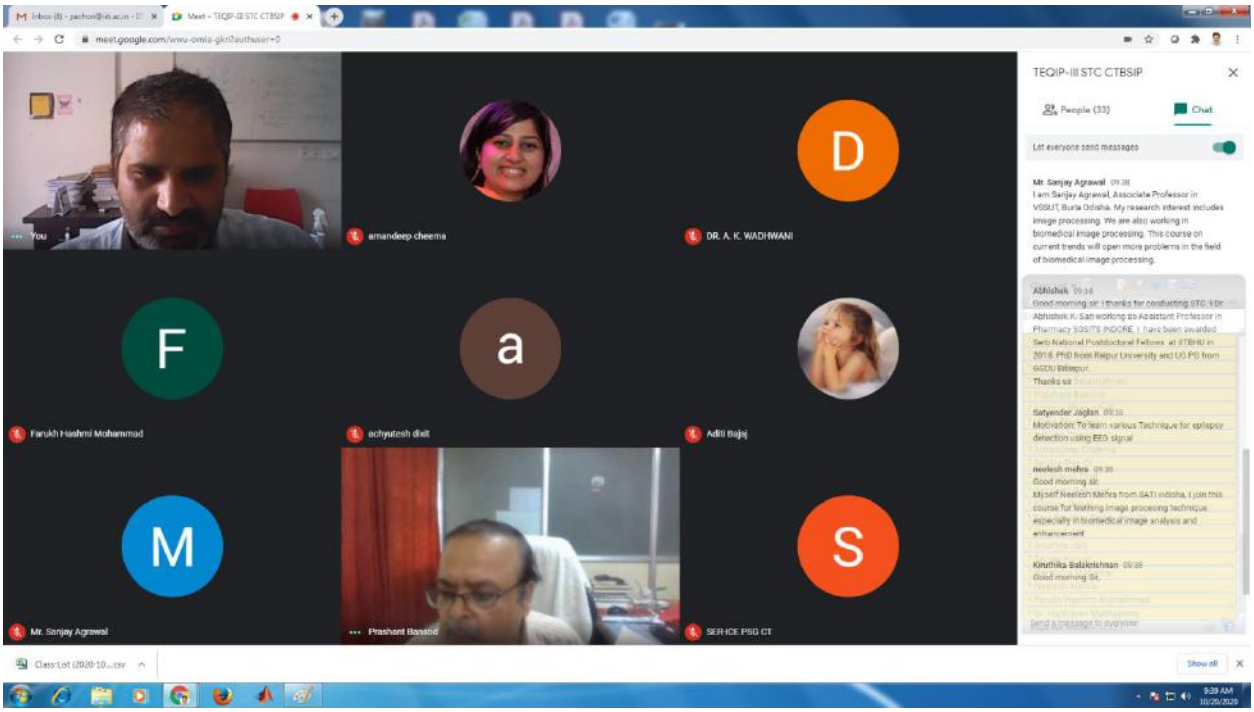


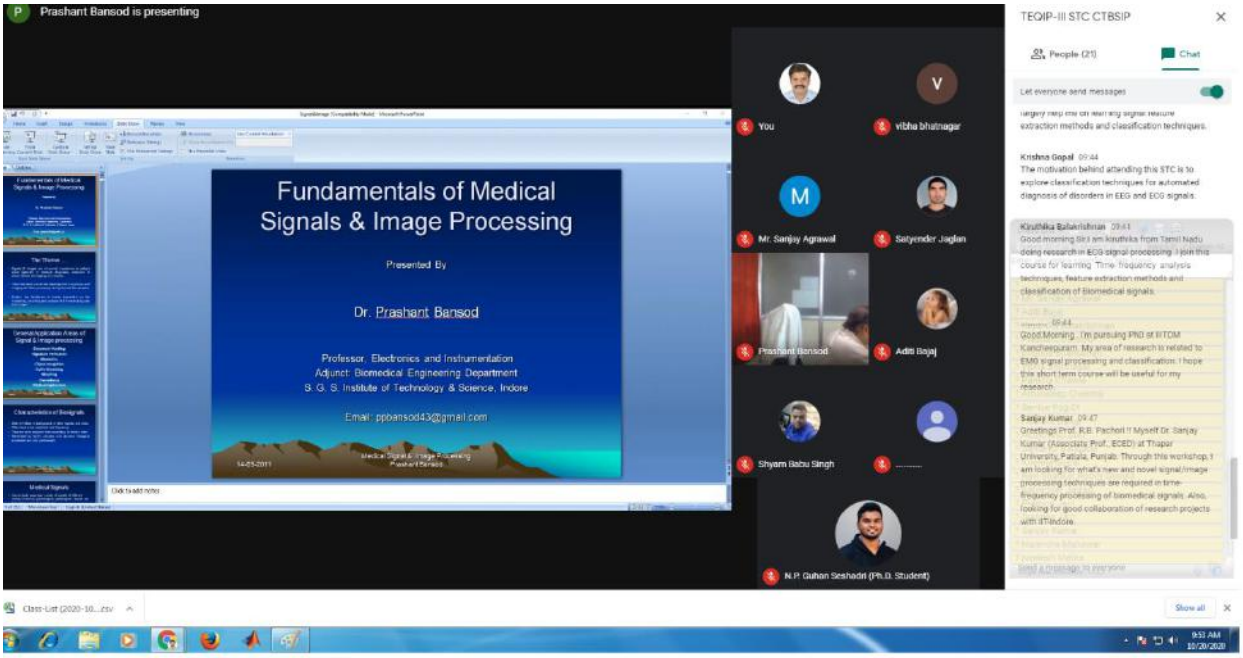


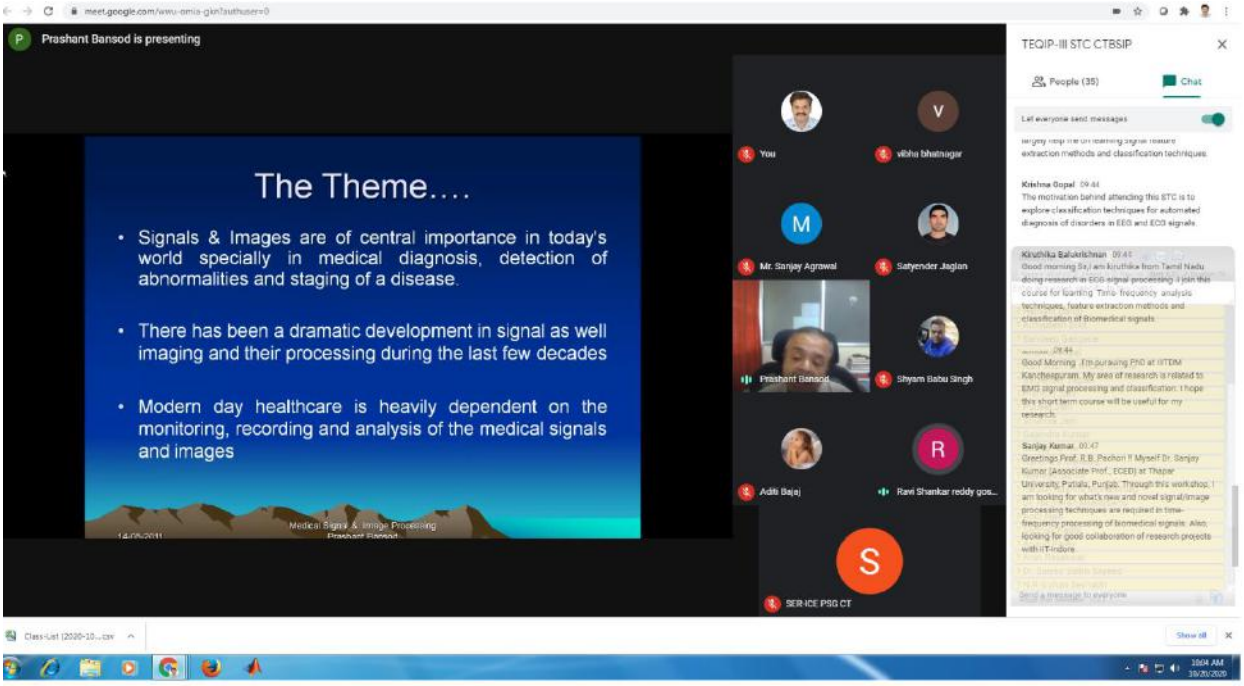

TEQIP-III STC CTBSIP
People (29)
Chat
Let everyone send messages
You
Soumya Jain
achyutesh dixit
N.P. Guhan Seshadri (Ph.D. Student)
Anand Parey
Mr. Sanjay Agrawal
Shyam Babu Singh
Kiruthika Balakrishnan

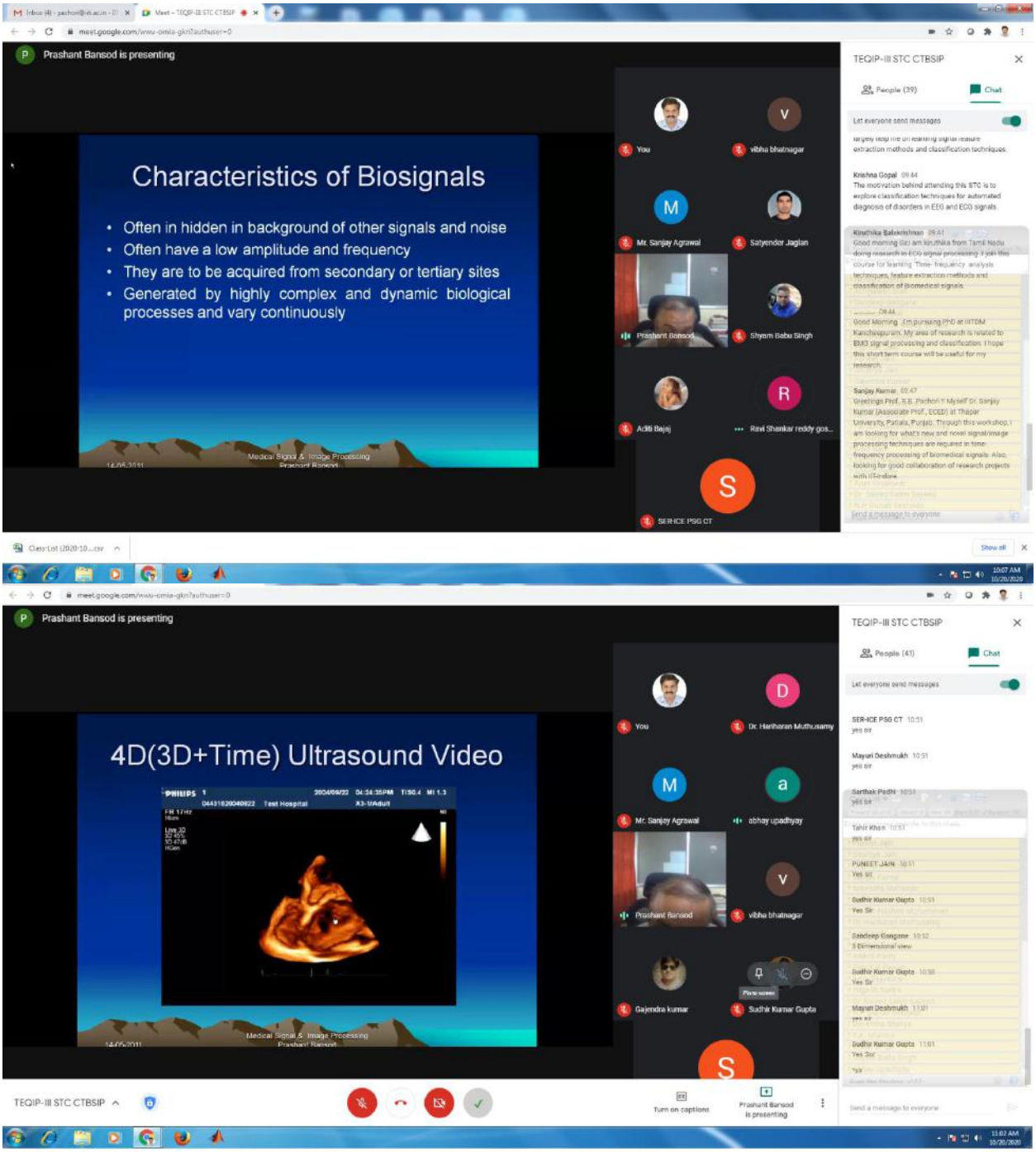

TEQIP-III STC CTBSIP
People (29)
Chat
Let everyone send messages
You
Soumya Jain
achyutesh dixit
N.P. Guhan Seshadri (Ph.D. Student)
Anand Parey
Turn on captions
Present now

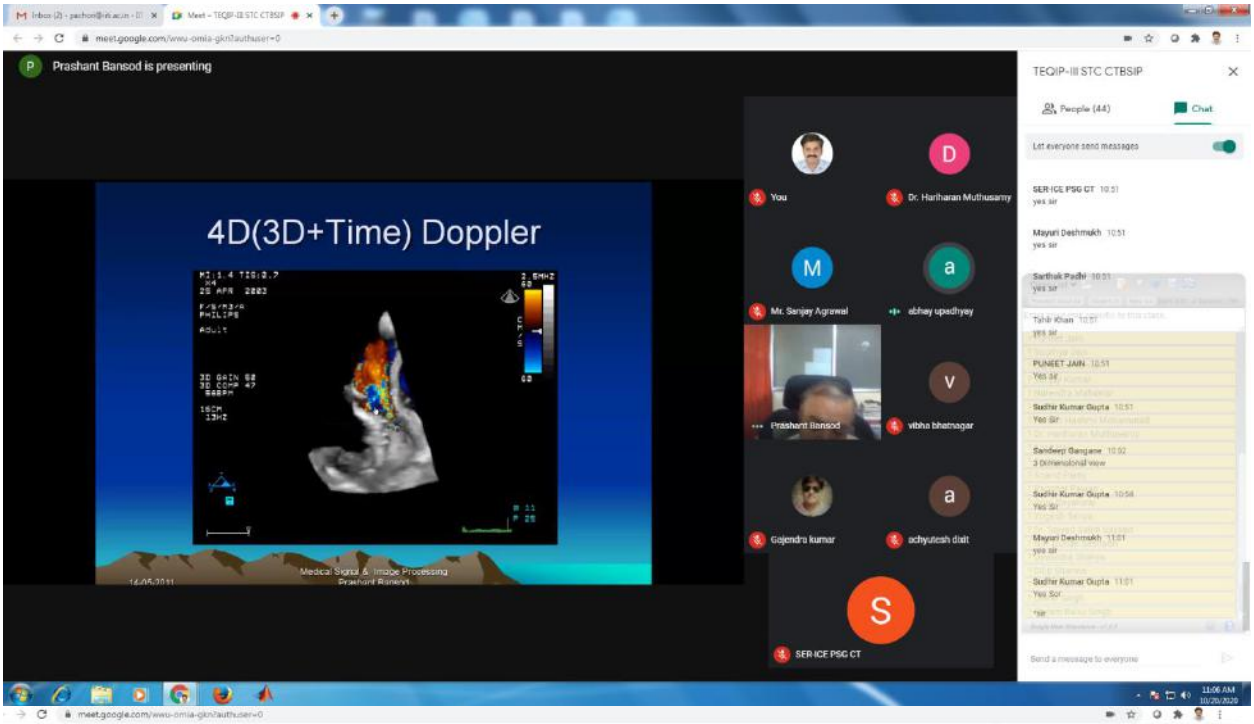

TEQIP-III STC CTBSIP
People (32)
Chat
Let everyone send messages
You
Krishna Gopal
N.P. Guhan Seshadri (Ph.D. Student)
N.P. Guhan Seshadri (Ph.D. Student)
Dr. Hariharan Muthusamy
Mr. Sanjay Agrawal
Shyam Babu Singh
SERICE PSG CT
Send a message to everyone

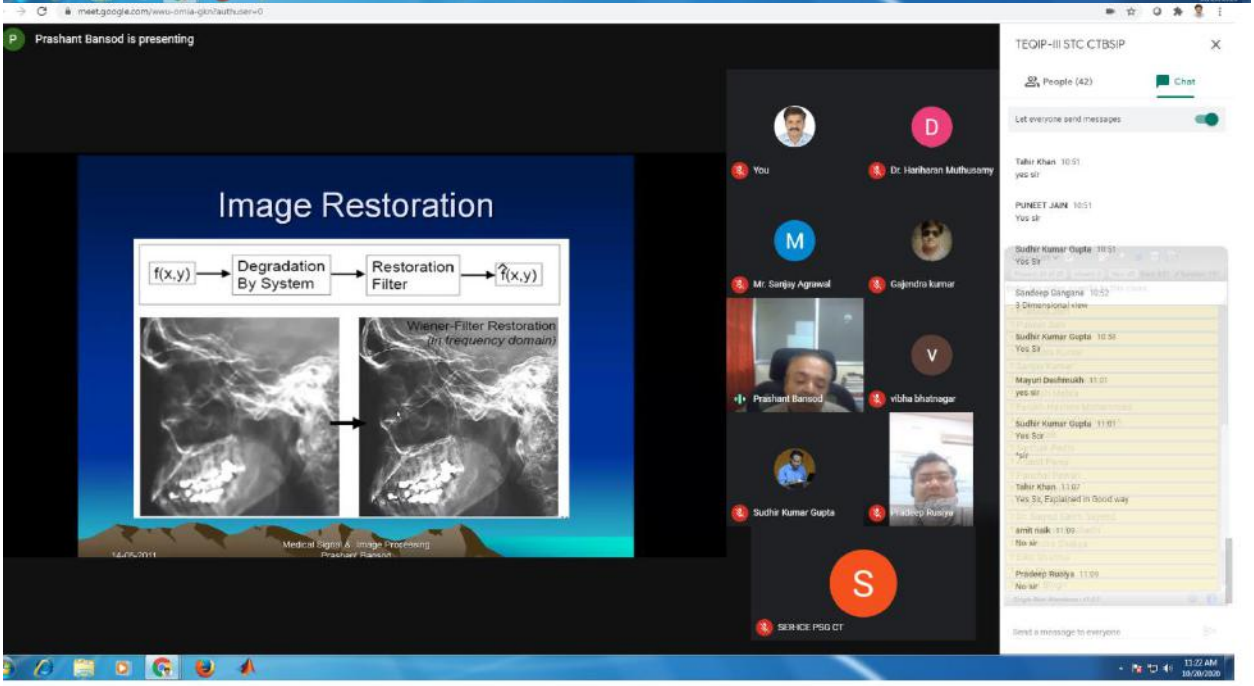

TEQIP-III STC CTBSIP
People (33)
Chat
Let everyone send messages
You
amandeep cheema
DR. A. K. WADHWANI
Farukh Hashmi Mohammad
achyutesh dixit
Aditi Bajaj
Mr. Sanjay Agrawal
Prashant Bansod
SERICE PSG CT
Send a message to everyone

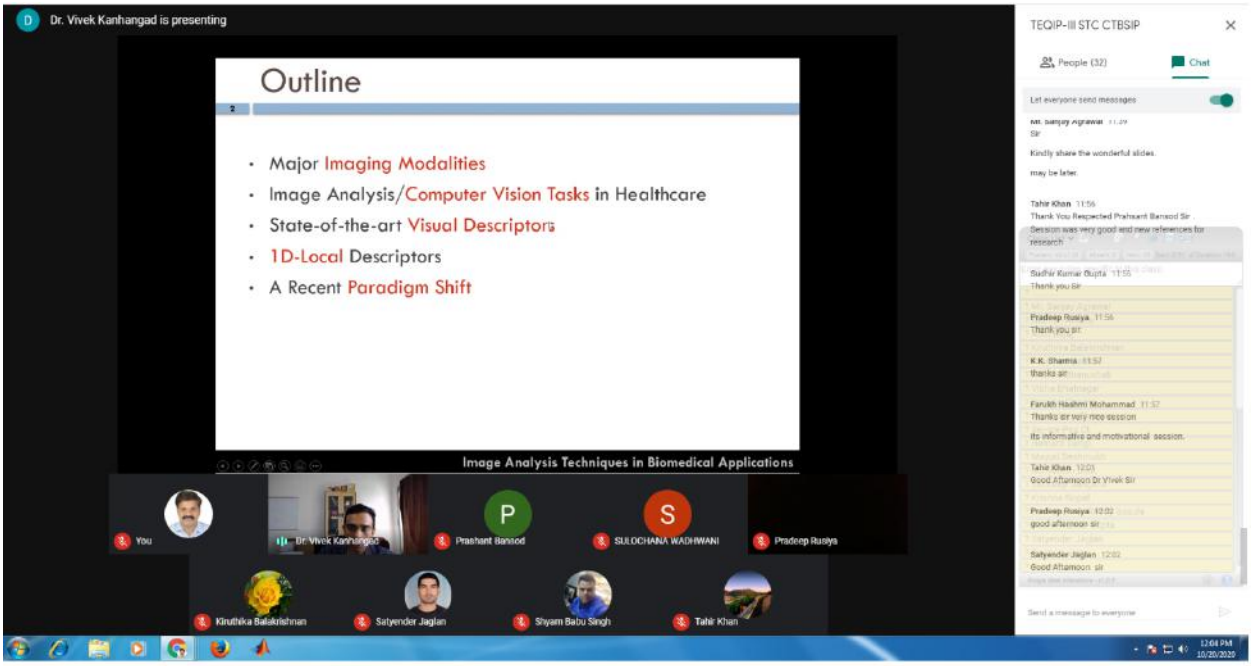

Prashant Bansod is presenting
Fundamentals of Medical Signals & Image Processing
Presented By
Dr. Prashant Bansod
Professor, Electronics and Instrumentation
Adjunct: Biomedical Engineering Department
S. G. S. Institute of Technology & Science, Indore
Email: ppbansod43@gmail.com
TEQIP-III STC CTBSIP
People (21)
Chat
You
vibha bhatnagar
Mr. Sanjay Agrawal
Satyender Jaglan
Prashant Bansod
Aditi Bajaj
Shyam Babu Singh
N.P. Guhan Seshadri (Ph.D. Student)

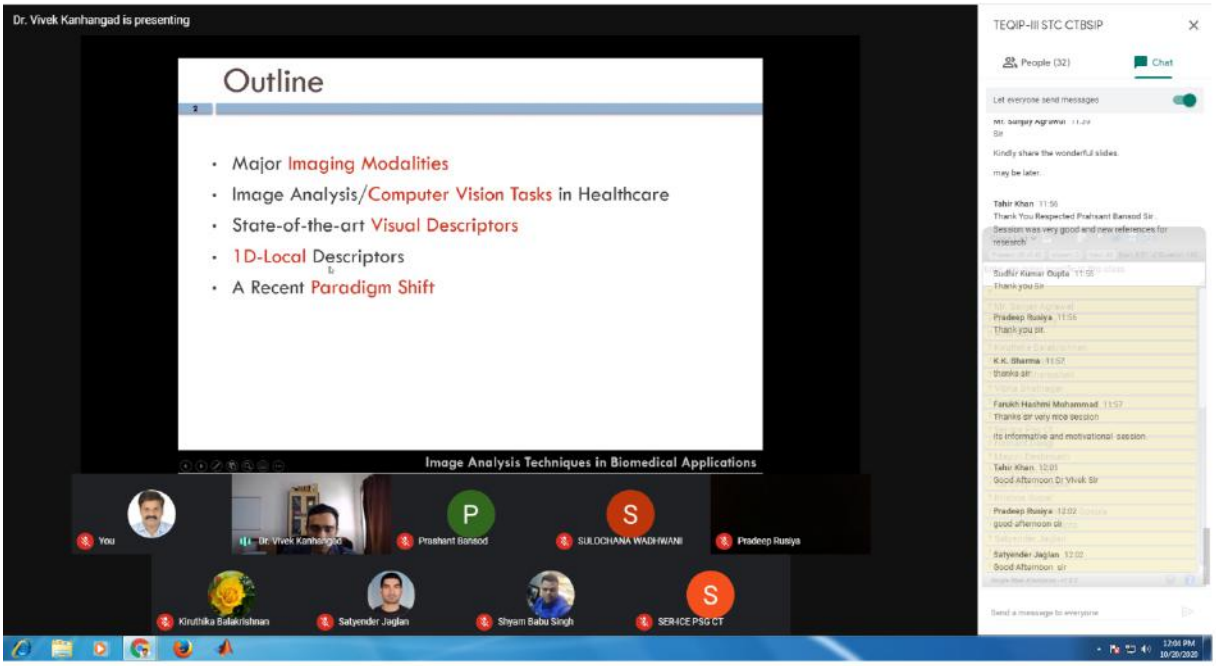

Prashant Bansod is presenting
The Theme....
• Signals & Images are of central importance in today's world specially in medical diagnosis, detection of abnormalities and staging of a disease.
• There has been a dramatic development in signal as well imaging and their processing during the last few decades
• Modern day healthcare is heavily dependent on the monitoring, recording and analysis of the medical signals and images
Medical Signal & Image Processing
TEQIP-III STC CTBSIP
People (35)
Chat
You
vibha bhatnagar
Mr. Sanjay Agrawal
Satyender Jaglan
Prashant Bansod
Shyam Babu Singh
Aditi Bajaj
Ravi Shankar reddy gos...
SERVICE PSG CT


Prashant Bansod is presenting
Characteristics of Biosignals
• Often in hidden in background of other signals and noise
• Often have a low amplitude and frequency
• They are to be acquired from secondary or tertiary sites
• Generated by highly complex and dynamic biological processes and vary continuously
Medical Signal & Image Processing
Prashant Bansod
TEQIP-III STC CTBSIP
People (39)
Chat
You
vibha bhatnagar
Mr. Sanjay Agrawal
Satyender Jaglan
Prashant Bansod
Shyam Babu Singh
Aditi Bajaj
Ravi Shankar reddy gos...
SER-ICE PSG CT
Let everyone send messages
Krishna Gopal 09:44
The motivation behind attending this STC is to explore classification techniques for automated diagnosis of disorders in EEG and ECG signals.
Send a message to everyone
Prashant Bansod is presenting
4D(3D+Time) Ultrasound Video
PHILIPS
Medical Signal & Image Processing
Prashant Bansod
TEQIP-III STC CTBSIP
People (41)
Chat
You
Dr. Hariharan Muthusamy
Mr. Sanjay Agrawal
abhay upadhyay
Prashant Bansod
vibha bhatnagar
Gajendra kumar
Sudhir Kumar Gupta
SER-ICE PSG CT 10:51
yes sir
Mayuri Deshmukh 10:51
yes sir
PUNEET JAIN 10:51
Yes sir
Sudhir Kumar Gupta 10:51
Yes Sir
Sandeep Gangone 10:52
3 Dimensional view
Sudhir Kumar Gupta 10:58
Yes Sir
Mayuri Deshmukh 11:01
yes sir
Sudhir Kumar Gupta 11:01
Yes Sir
Send a message to everyone
Turn on captions
Prashant Bansod is presenting


Prashant Bansod is presenting
4D(3D+Time) Doppler
Medical Signal & Image Processing
Prashant Bansod
TEQIP-III STC CTBSIP
People (44)
Chat
You
Dr. Hariharan Muthusamy
Mr. Sanjay Agrawal
abhay upadhyay
Prashant Bansod
vibha bhatnagar
Gajendra kumar
achyutesh dixit
SERVICE PSG CT


Prashant Bansod is presenting
Image Restoration
f(x,y)
Degradation By System
Restoration Filter
f̂(x,y)
Wiener-Filter Restoration
(in frequency domain)
Medical Signal & Image Processing
Prashant Bansod
TEQIP-III STC CTBSIP
People (42)
Chat
You
Dr. Hariharan Muthusamy
Mr. Sanjay Agrawal
Gajendra kumar
Prashant Bansod
vibha bhatnagar
Sudhir Kumar Gupta
Pradeep Ruslya
SERVICE PSG CT


Dr. Vivek Kanhangad is presenting
Outline
2
Major Imaging Modalities
Image Analysis/Computer Vision Tasks in Healthcare
State-of-the-art Visual Descriptors
1D-Local Descriptors
A Recent Paradigm Shift
Image Analysis Techniques in Biomedical Applications
You
Dr. Vivek Kanhangad
Prashant Bansod
SULOCHANA WADHWANI
Pradeep Rusiya
Kiruthika Balakrishnan
Satyender Jaglan
Shyam Babu Singh
Tahir Khan
TEQIP-III STC CTBSIP
People (32)
Chat
Let everyone send messages
Kindly share the wonderful slides.
may be later.
Tahir Khan 11:56
Thank You Respected Prahsant Bansod Sir
Session was very good and new references for research
Sudhir Kumar Gupta 11:56
Thank you Sir
Pradeep Rusiya 11:56
Thank you sir
K.K. Sharma 11:57
thanks sir
Farukh Hashmi Mohammad 11:57
Thanks sir very nice session
its informative and motivational session.
Tahir Khan 12:01
Good Afternoon Dr Vivek Sir
Pradeep Rusiya 12:02
good afternoon sir
Satyender Jaglan 12:02
Good Afternoon sir
Send a message to everyone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Outline
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Image Analysis/Computer Vision Tasks in Healthcare
State-of-the-art Visual Descriptors
1D-Local Descriptors
A Recent Paradigm Shift
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You
Dr. Vivek Kanhangad
Prashant Bansod
SULOCHANA WADHWANI
Pradeep Rusiya
Kiruthika Balakrishnan
Satyender Jaglan
Shyam Babu Singh
SERVICE PSG CT
TEQIP-III STC CTBSIP
People (32)
Chat
Let everyone send messages
Kindly share the wonderful slides.
may be later.
Tahir Khan 11:56
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good afternoon sir
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Good Afternoon sir
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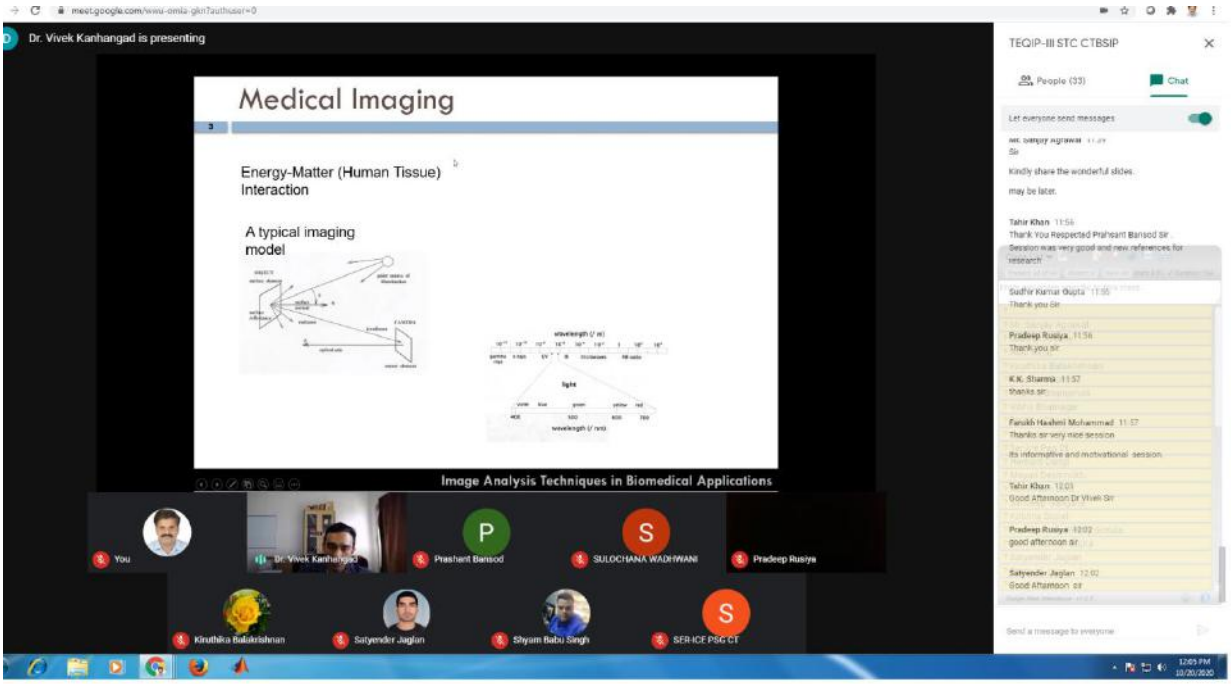
Dr. Vivek Kanhangad is presenting
Medical Imaging
Energy-Matter (Human Tissue) Interaction
A typical imaging model
Image Analysis Techniques in Biomedical Applications
TEQIP-III STC CTBSIP
People (33)
Chat
Let everyone send messages
Kindly share the wonderful slides.
may be later.
Tahir Khan 11:56
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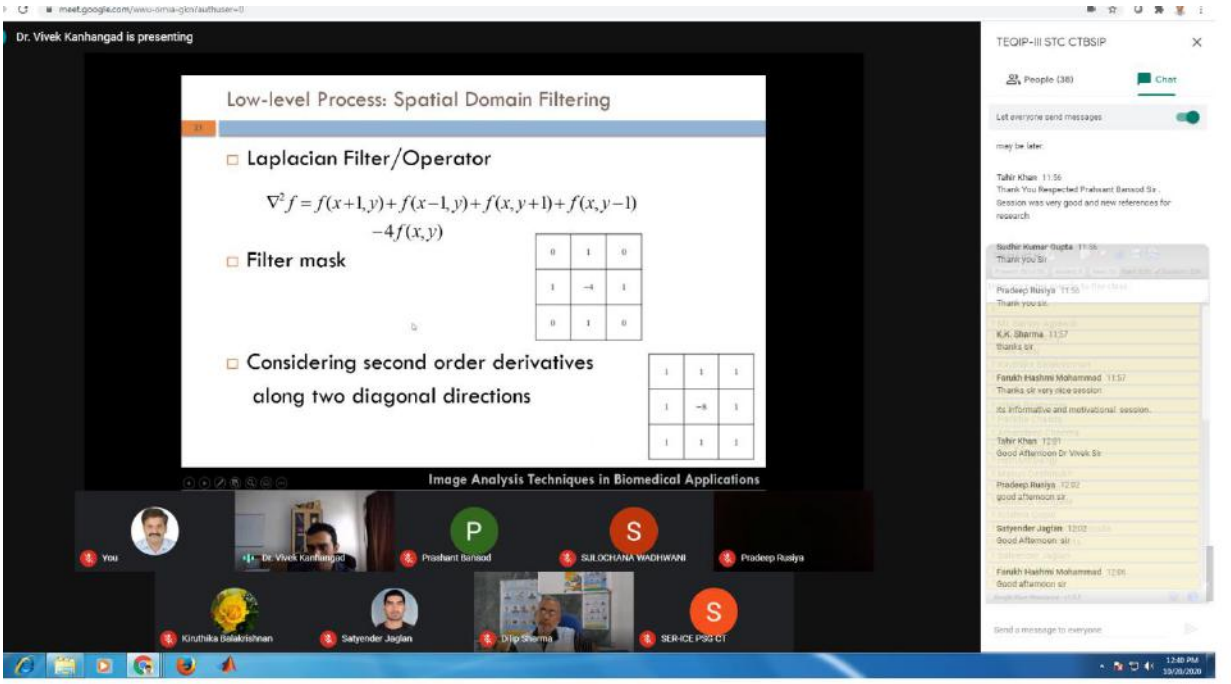
Satyender Jaglan 12:02
Good Afternoon sir
Send a message to everyone
You
Dr. Vivek Kanhangad
Prashant Bansod
SULOCHANA WADHWANI
Pradeep Rusiya
Kiruthika Balakrishnan
Satyender Jaglan
Shyam Babu Singh
SERICE PSG CT


Dr. Vivek Kanhangad is presenting
Low-level Process: Spatial Domain Filtering
Laplacian Filter/Operator
$\nabla^2 f = f(x+1,y)+f(x-1,y)+f(x,y+1)+f(x,y-1) -4f(x,y)$
Filter mask
0 1 0
1 -4 1
0 1 0
Considering second order derivatives along two diagonal directions
1 1 1
1 -8 1
1 1 1
Image Analysis Techniques in Biomedical Applications
TEQIP-III STC CTBSIP
People (38)
Chat
Let everyone send messages
may be later
Tahir Khan 11:56
Thank You Respected Prahsant Bansod Sir.
Session was very good and new references for research
Sudhir Kumar Gupta 11:56
Thank you Sir
Pradeep Rusiya 11:56
Thank you sir
K.K. Sharma 11:57
thanks sir
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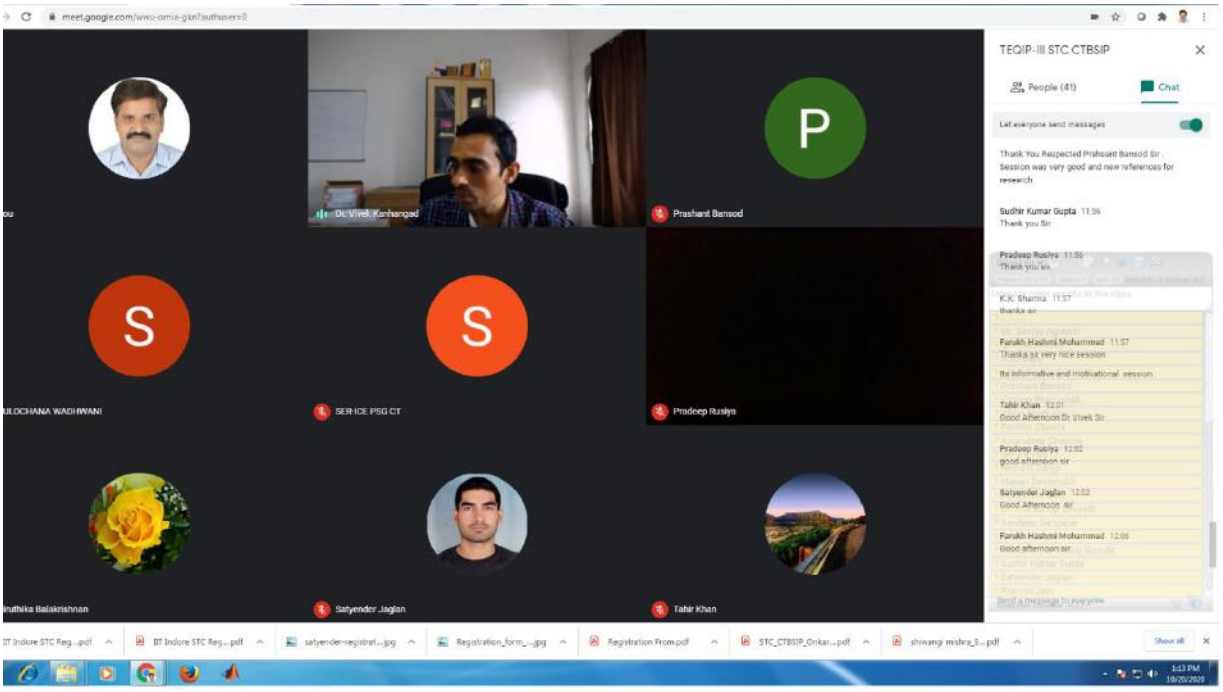
Tahir Khan 12:01
Good Afternoon Dr Vivek Sir
Pradeep Rusiya 12:02
good afternoon sir
Satyender Jaglan 12:02
Good Afternoon sir
Farukh Hashmi Mohammad 12:06
Good afternoon sir
Send a message to everyone
You
Dr. Vivek Kanhangad
Prashant Bansod
SULOCHANA WADHWANI
Pradeep Rusiya
Kiruthika Balakrishnan
Satyender Jaglan
Dilip Sharma
SERICE PSG CT


TEQIP-III STC CTBSIP
People (41)
Chat
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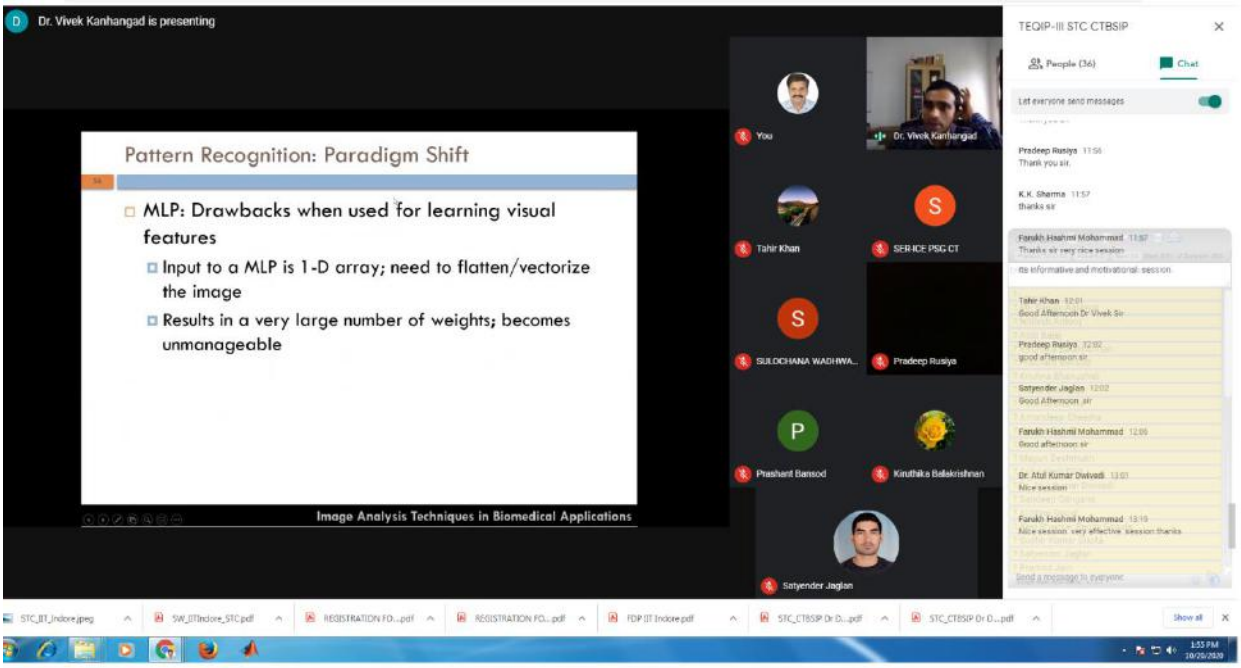
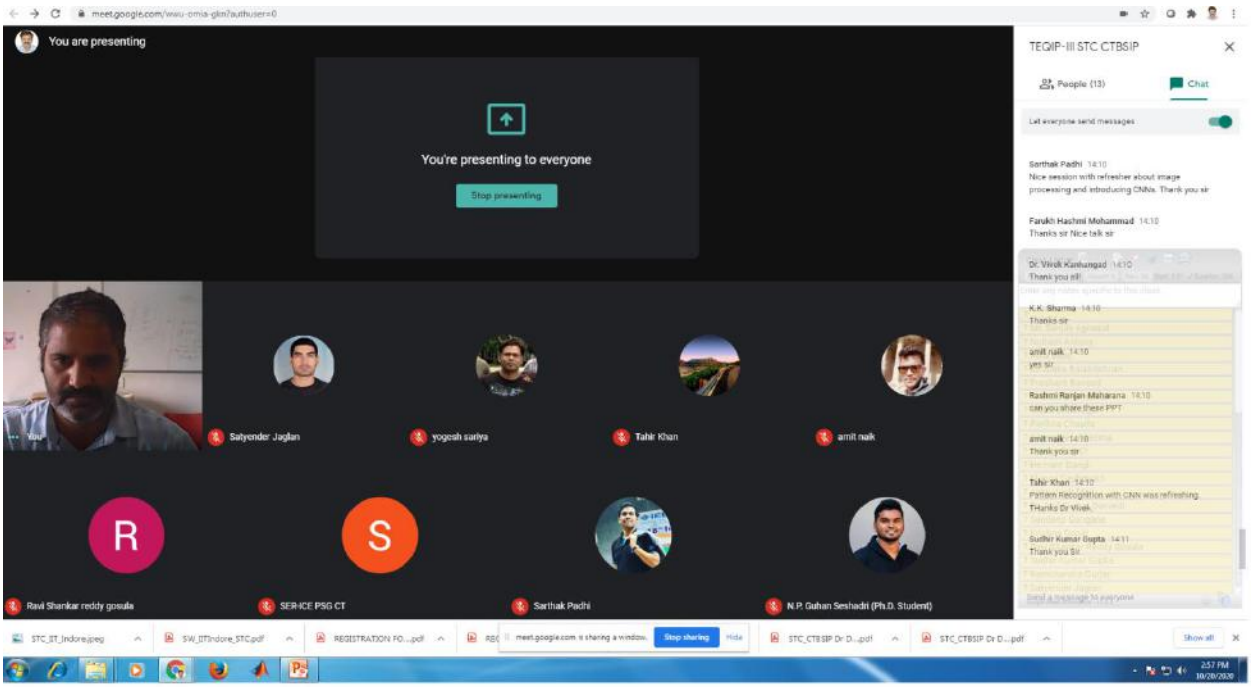
good afternoon sir
Satyender Jaglan 12:02
Good Afternoon sir
Farukh Hashmi Mohammad 12:06
Good afternoon sir
Dr. Vivek Kanhangad
Prashant Bansod
SULOCHANA WADHWANI
SER-ICE PSG CT
Pradeep Rusiya
Kiruthika Balakrishnan
Satyender Jaglan
Tahir Khan


Dr. Vivek Kanhangad is presenting
Pattern Recognition: Paradigm Shift
MLP: Drawbacks when used for learning visual features
Input to a MLP is 1-D array; need to flatten/vectorize the image
Results in a very large number of weights; becomes unmanageable
Image Analysis Techniques in Biomedical Applications
TEQIP-III STC CTBSIP
People (36)
Chat
Let everyone send messages
Pradeep Rusiya 11:56
Thank you sir
K.K. Sharma 11:57
thanks sir
Farukh Hashmi Mohammad 11:57
Thanks sir very nice session
its informative and motivational session
Tahir Khan 12:01
Good Afternoon Dr Vivek Sir
Pradeep Rusiya 12:02
good afternoon sir
Satyender Jaglan 12:02
Good Afternoon sir
Farukh Hashmi Mohammad 12:06
Good afternoon sir
Dr. Atul Kumar Dwivedi 13:01
Nice session
Farukh Hashmi Mohammad 13:19
Nice session very effective session thanks
You
Dr. Vivek Kanhangad
Tahir Khan
SER-ICE PSG CT
SULOCHANA WADHWA...
Pradeep Rusiya
Prashant Bansod
Kiruthika Balakrishnan
Satyender Jaglan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Stop presenting
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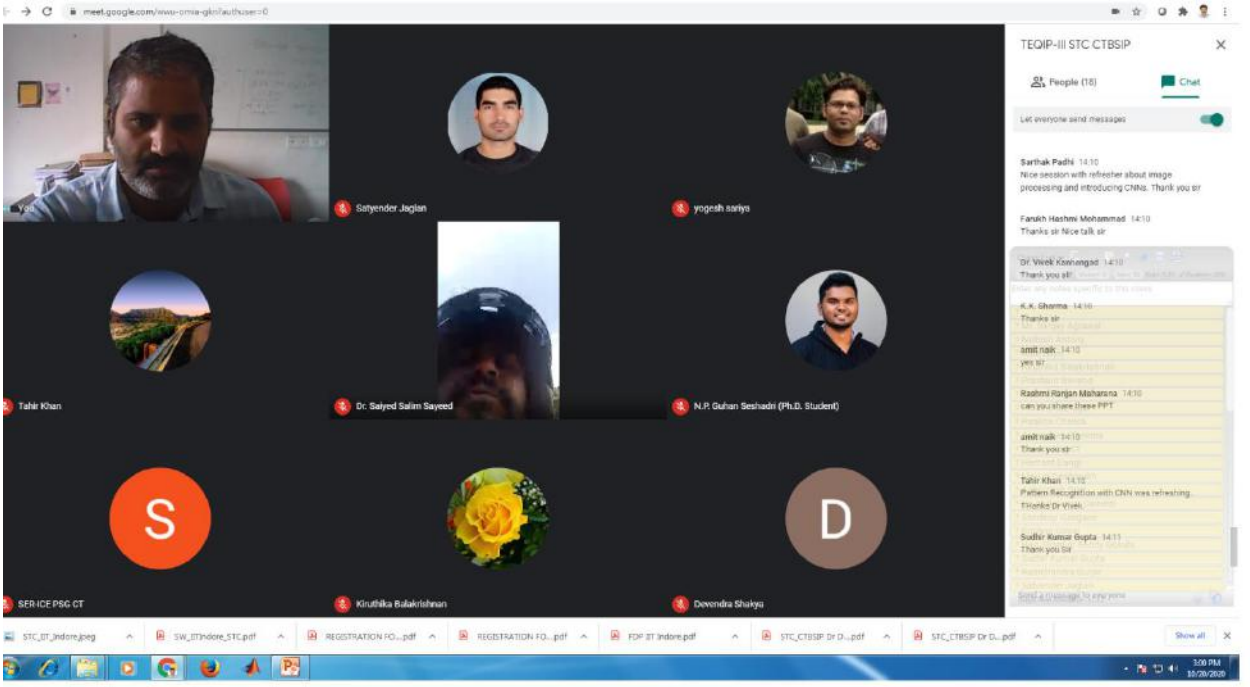
People (13)
Chat
Satyender Jaglan
yogesh sariya
Tahir Khan
amit naik
Ravi Shankar reddy gosula
SERICE PSG CT
Sarthak Padhi
N.P. Guhan Seshadri (Ph.D. Student)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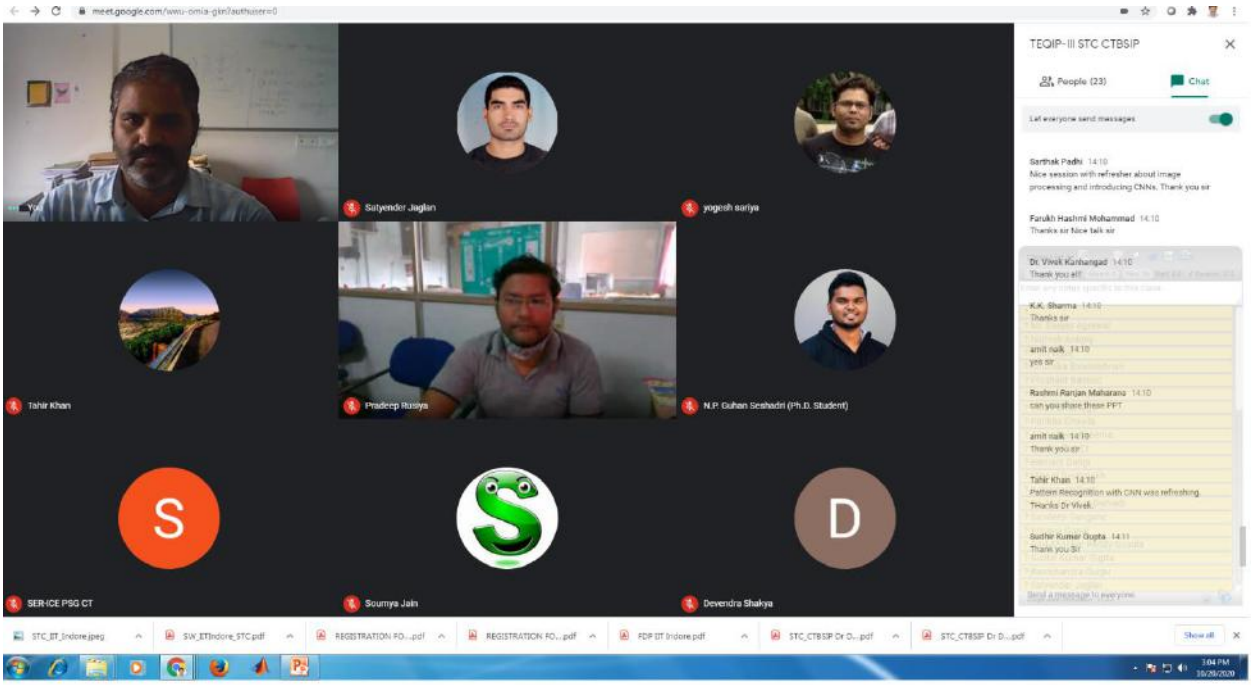
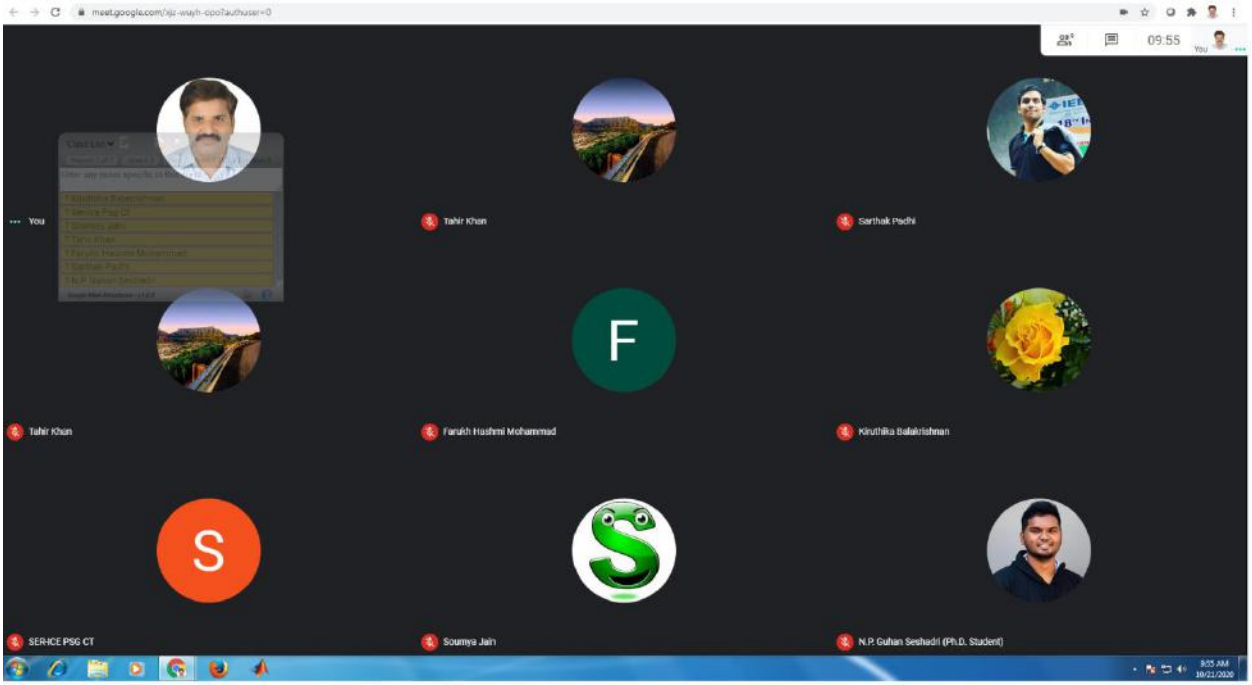
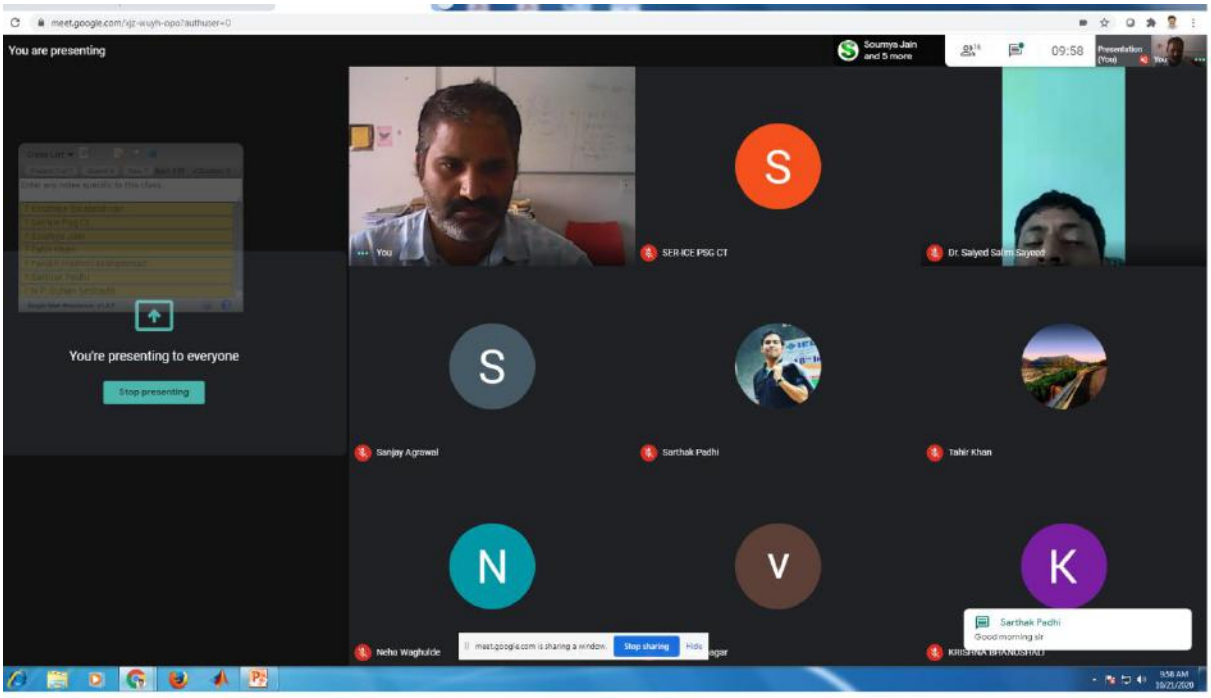
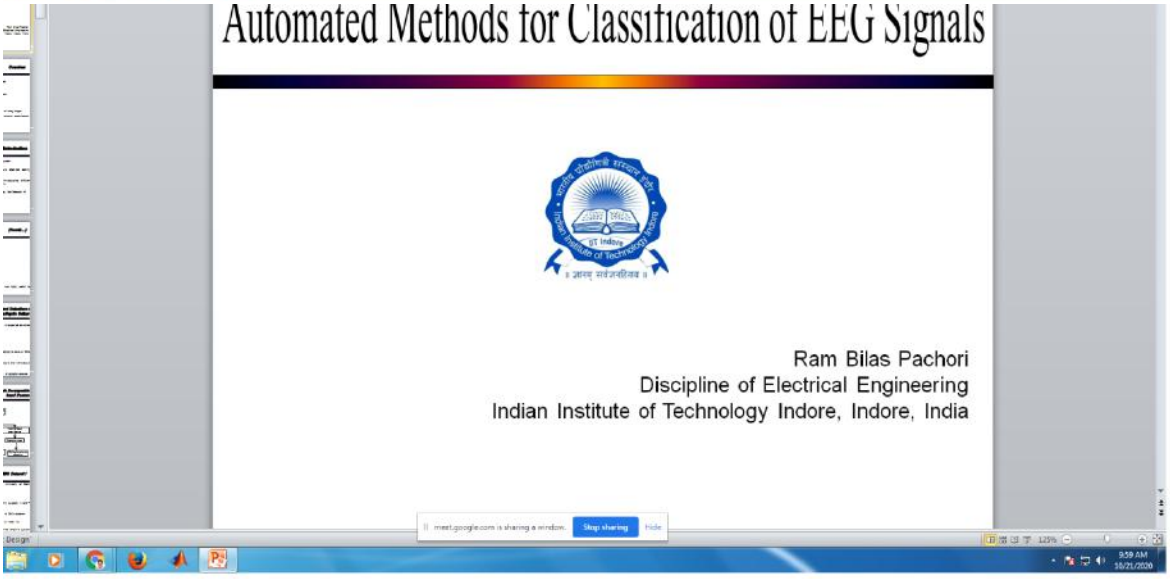
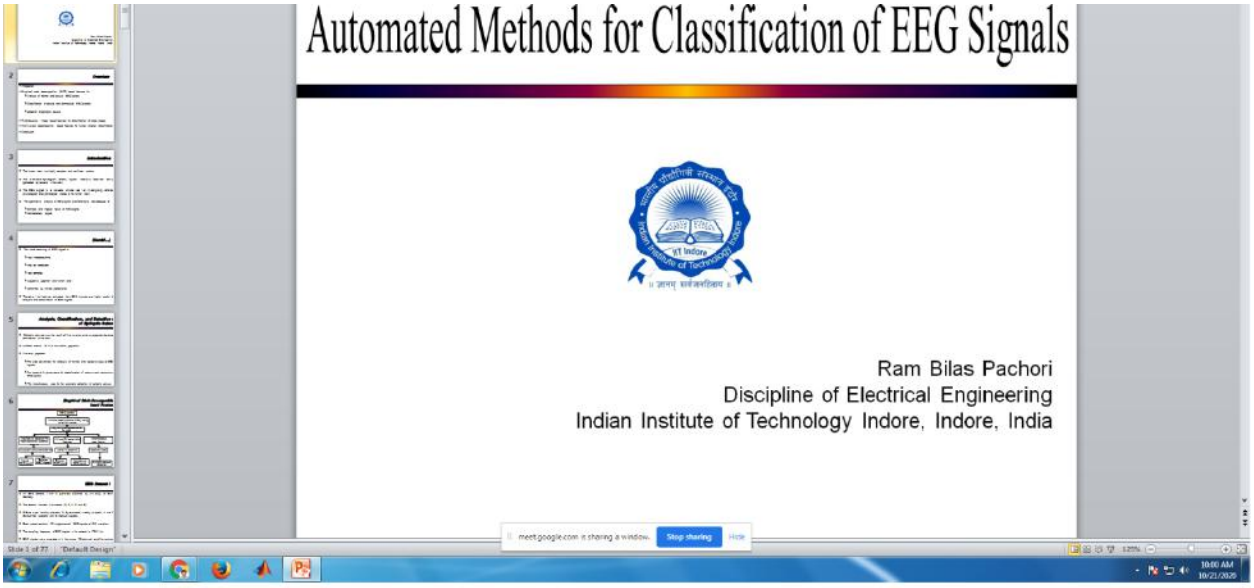
People (18)
Chat
Satyender Jaglan
yogesh sariya
Tahir Khan
Dr. Saiyed Salim Sayeed
N.P. Guhan Seshadri (Ph.D. Student)
SERICE PSG CT
Kiruthika Balakrishnan
Devendra Shakya


TEQIP-III STC CTBSIP
People (23)
Chat
Satyender Jaglan
yogesh sariya
Tahir Khan
Pradeep Ruisya
N.P Guhan Seshadri (Ph.D. Student)
SERHCE PSG CT
Soumya Jain
Devendra Shakya


09:55
You
Tahir Khan
Sarthak Padhi
Tahir Khan
Faruk Hashmi Mohammad
Kiruthika Balakrishnan
SERHCE PSG CT
Soumya Jain
N.P. Guhan Seshadri (Ph.D. Student)


You are presenting
Soumya Jain and 5 more
09:58
You're presenting to everyone
Stop presenting
You
SERICE PSG CT
Dr. Saiyed Salim Sayeed
Sanjay Agrawal
Sarthak Padhi
Tahir Khan
Neha Waghulde
Sarthak Padhi
Good morning sir


Automated Methods for Classification of EEG Signals
Ram Bilas Pachori
Discipline of Electrical Engineering
Indian Institute of Technology Indore, Indore, India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Discipline of Electrical Engineering
Indian Institute of Technology Indore, Indore, India
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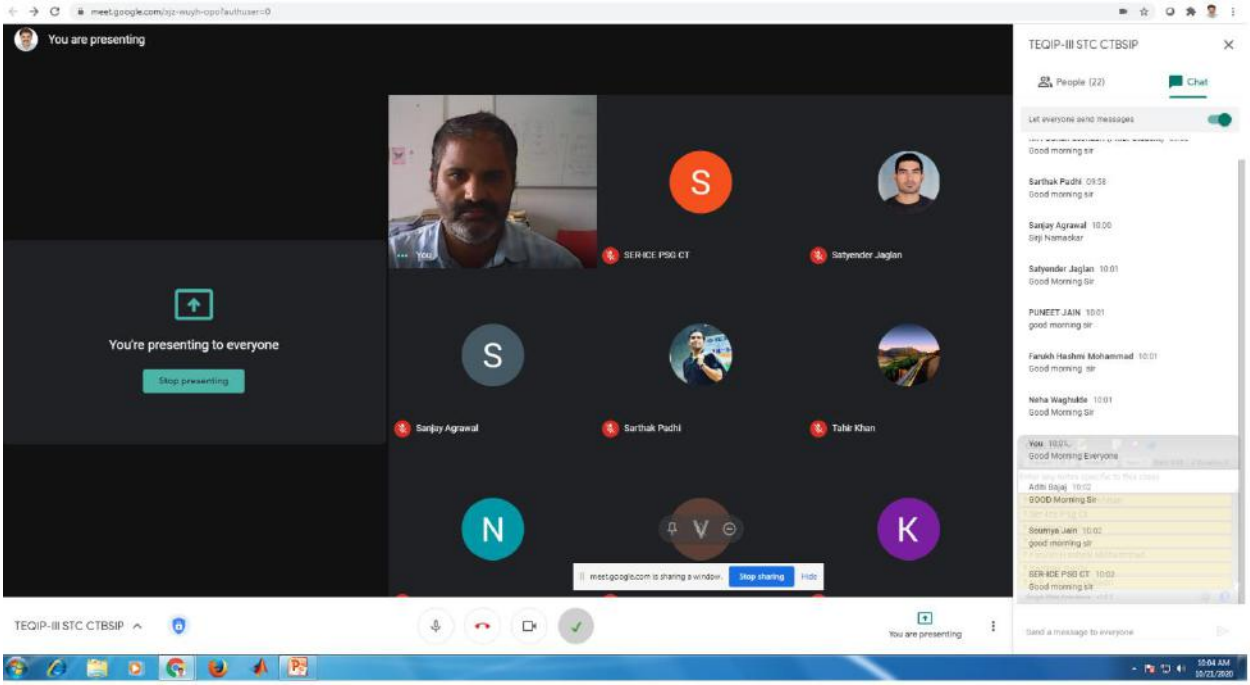
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Stop presenting
SERICE PSG CT
Satyender Jaglan
Sanjay Agrawal
Sarthak Padhi
Tahir Khan
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People (22)
Chat
Let everyone send messages
Good morning sir
Sarthak Padhi 09:58
Good morning sir
Sanjay Agrawal 10:00
Shri Namaskar
Satyender Jaglan 10:01
Good Morning Sir
PUNEET JAIN 10:01
good morning sir
Farukh Hashmi Mohammad 10:01
Good morning sir
Neha Waghulde 10:01
Good Morning Sir
You 10:01
Good Morning Everyone
Aditi Bajaj 10:02
GOOD Morning Sir
Soumya Jain 10:02
good morning sir
SERICE PSG CT 10:02
Good morning sir
Send a message to everyone
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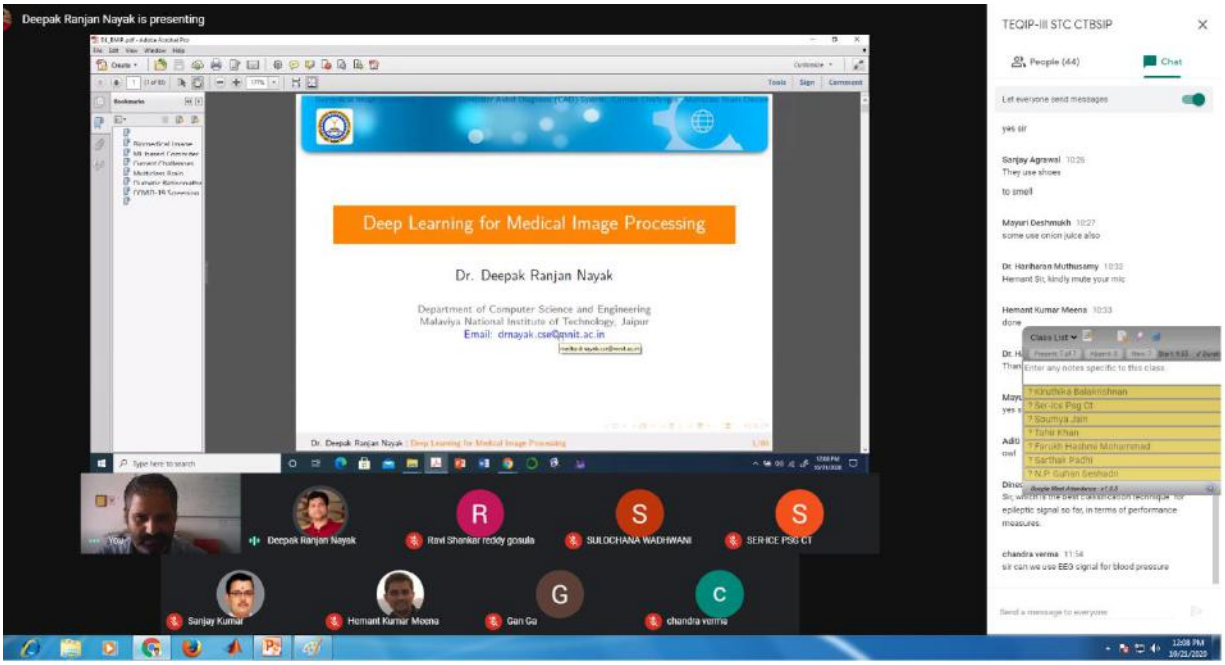
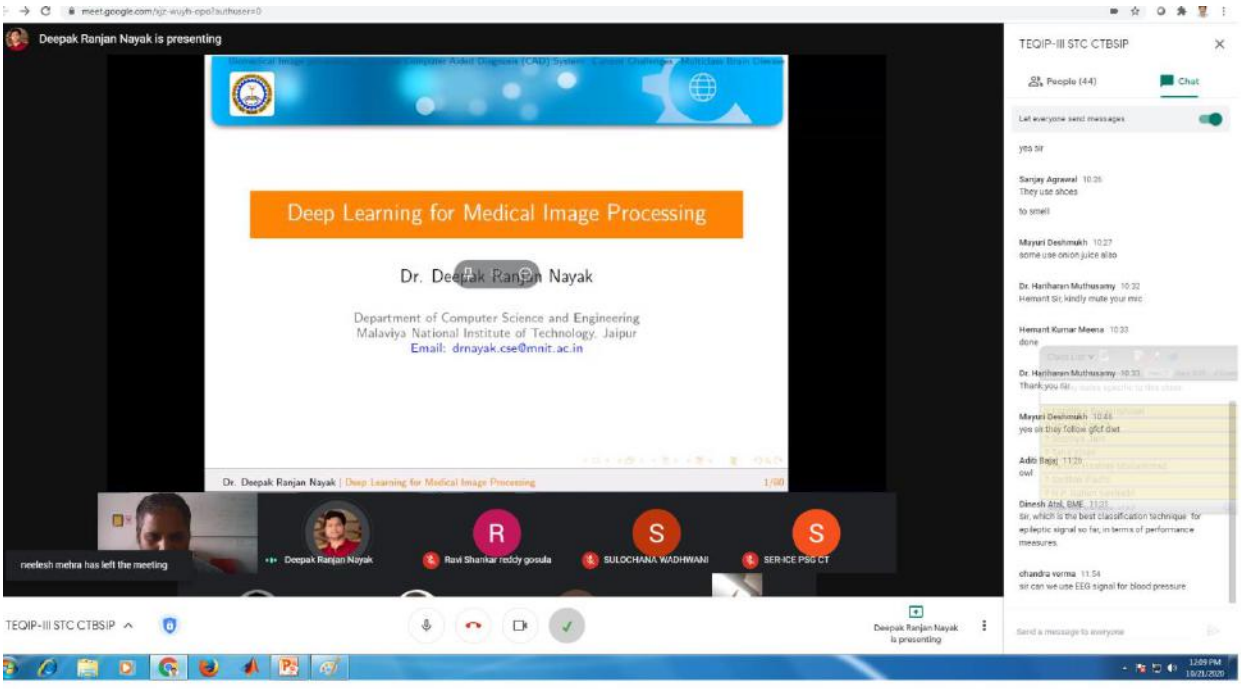
You are presenting


Deepak Ranjan Nayak is presenting
Deep Learning for Medical Image Processing
Dr. Deepak Ranjan Nayak
Department of Computer Science and Engineering
Malaviya National Institute of Technology, Jaipur
Email: drnayak.cse@mnit.ac.in
Deepak Ranjan Nayak
Ravi Shankar reddy gosula
SULOCHANA WADHWANI
SERVICE PSG CT
Sanjay Kumar
Hemant Kumar Meena
Gan Ga
chandra verma
TEQIP-III STC CTBSIP
People (44)
Chat
Let everyone send messages
yes sir
Sanjay Agrawal 10:26
They use shoes
to smell
Mayuri Deshmukh 10:27
some use onion juice also
Dr. Hariharan Muthusamy 10:32
Hemant Sir, kindly mute your mic
Hemant Kumar Meena 10:33
done
chandra verma 11:54
sir can we use EEG signal for blood pressure


Deepak Ranjan Nayak is presenting
Deep Learning for Medical Image Processing
Dr. Deepak Ranjan Nayak
Department of Computer Science and Engineering
Malaviya National Institute of Technology, Jaipur
Email: drnayak.cse@mnit.ac.in
neelesh mehra has left the meeting
Deepak Ranjan Nayak
Ravi Shankar reddy gosula
SULOCHANA WADHWANI
SERVICE PSG CT
TEQIP-III STC CTBSIP
People (44)
Chat
yes sir
Sanjay Agrawal 10:26
They use shoes
to smell
Mayuri Deshmukh 10:27
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Hemant Sir, kindly mute your mic
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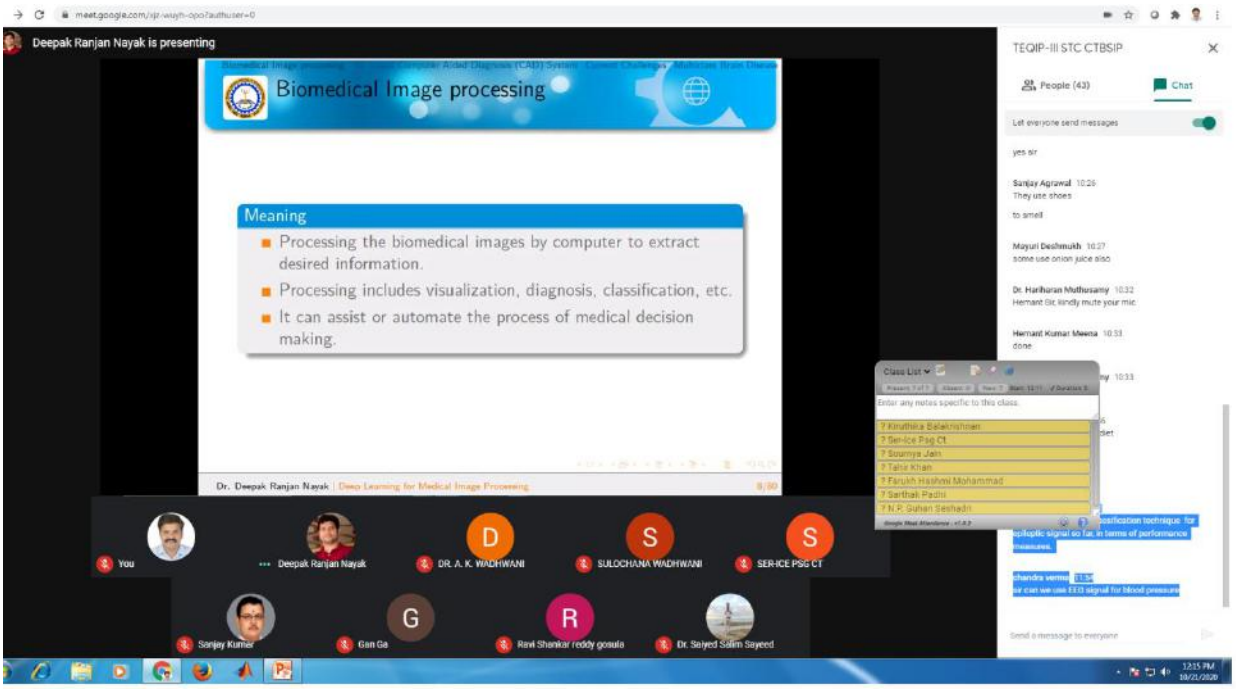
done
chandra verma 11:54
sir can we use EEG signal for blood pressure


Deepak Ranjan Nayak is presenting
Biomedical Image processing
Meaning
Processing the biomedical images by computer to extract desired information.
Processing includes visualization, diagnosis, classification, etc.
It can assist or automate the process of medical decision making.
Dr. Deepak Ranjan Nayak | Deep Learning for Medical Image Processing
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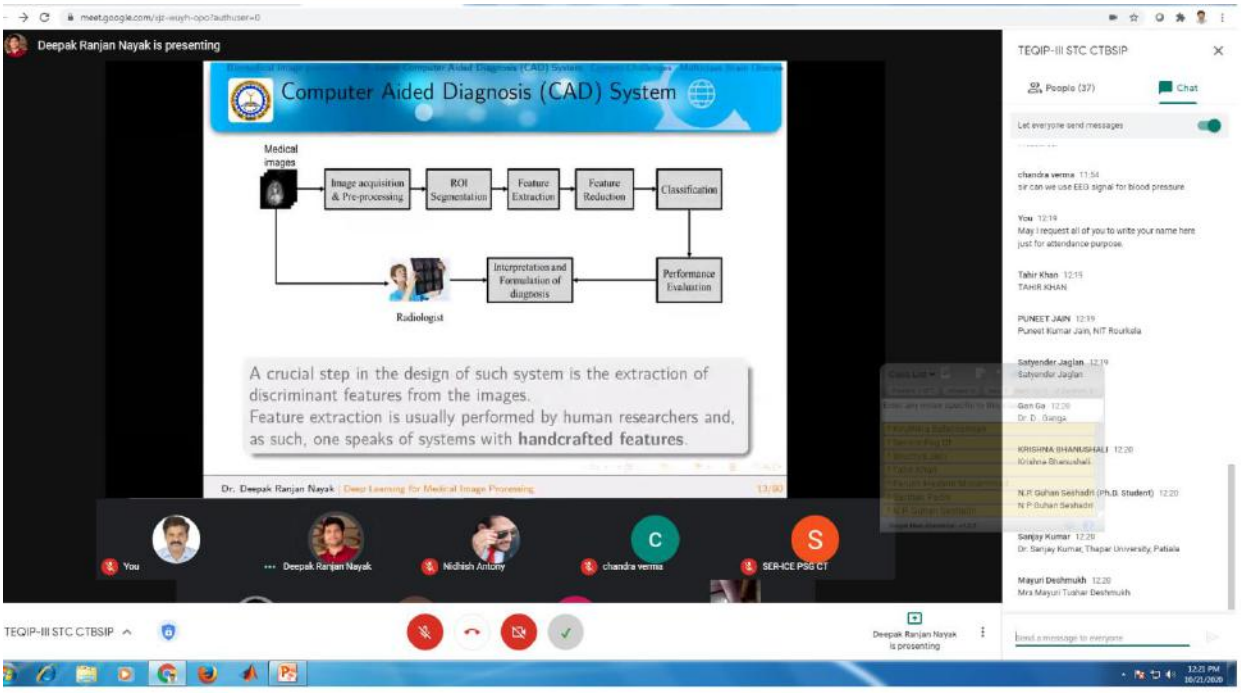
People (43)
Chat
You
Deepak Ranjan Nayak
DR. A. K. WADHWANI
SULOCHANA WADHWANI
SERVICE PSG CT
Sanjay Kumar
Gan Ga
Ravi Shankar reddy gosula
Dr. Saiyed Salim Sayeed


Deepak Ranjan Nayak is presenting
Computer Aided Diagnosis (CAD) System
Medical images
Image acquisition & Pre-processing
ROI Segmentation
Feature Extraction
Feature Reduction
Classification
Performance Evaluation
Interpretation and Formulation of diagnosis
Radiologist
A crucial step in the design of such system is the extraction of discriminant features from the images.
Feature extraction is usually performed by human researchers and, as such, one speaks of systems with handcrafted features.
Dr. Deepak Ranjan Nayak | Deep Learning for Medical Image Processing
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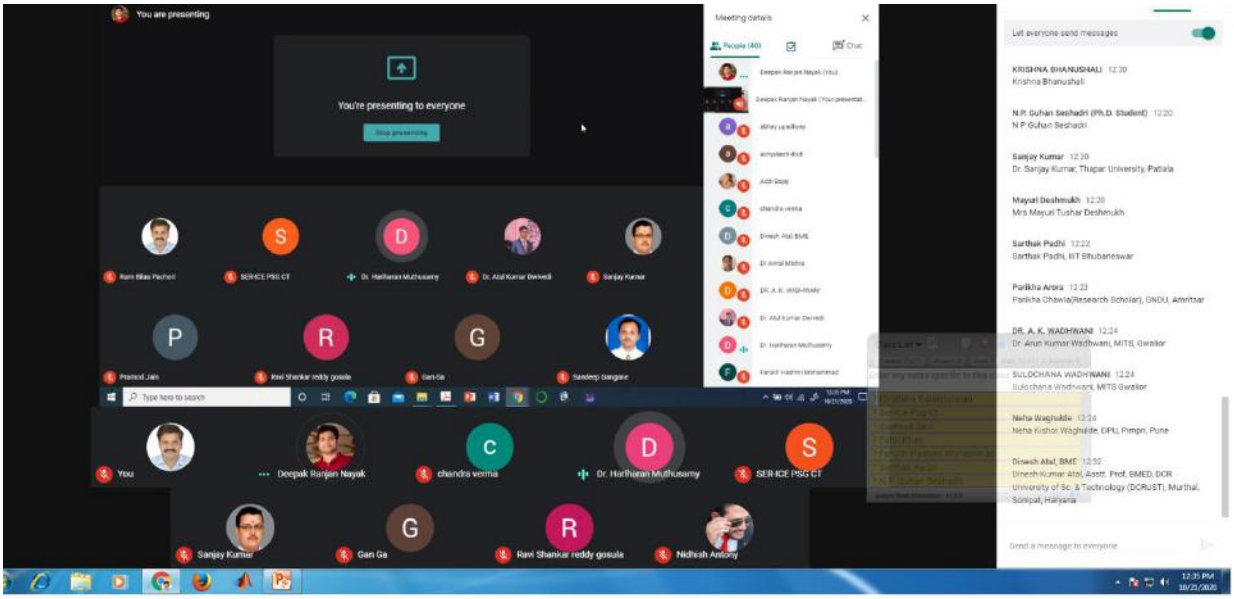
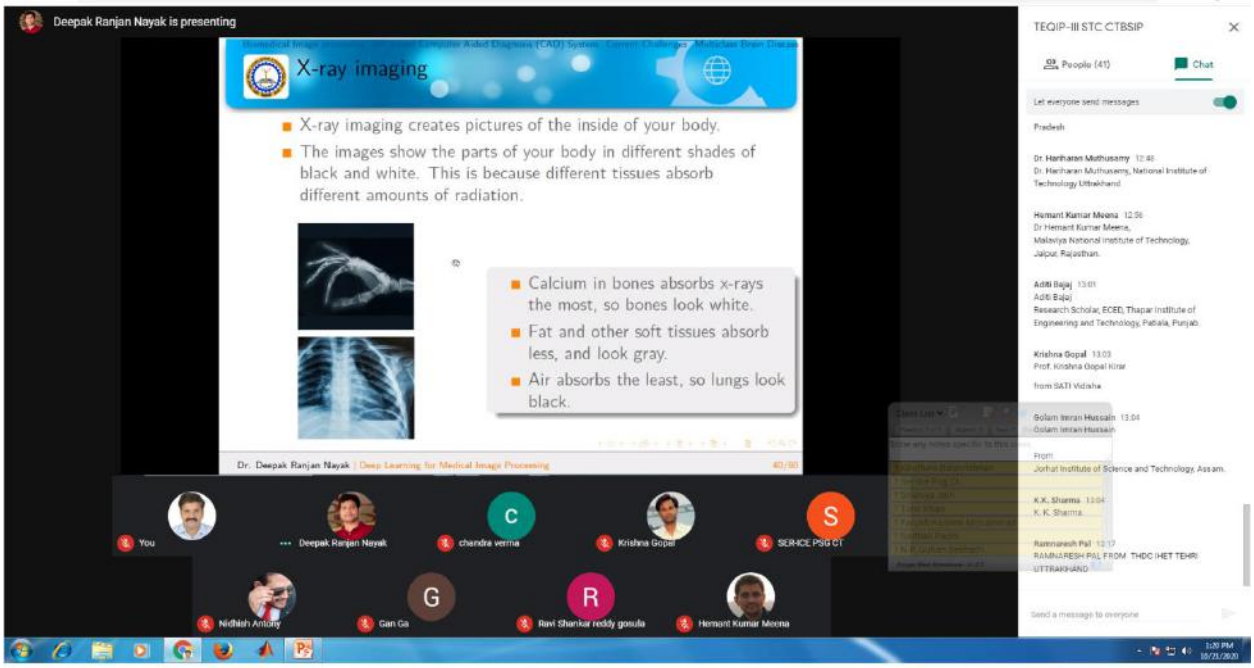
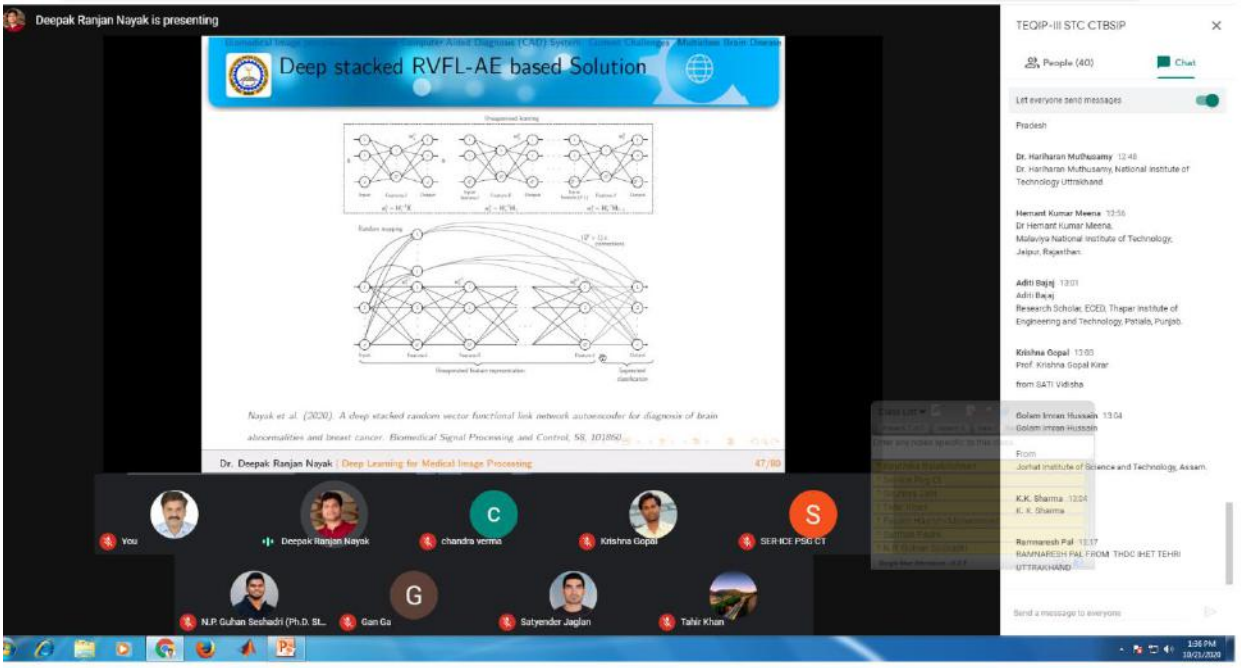
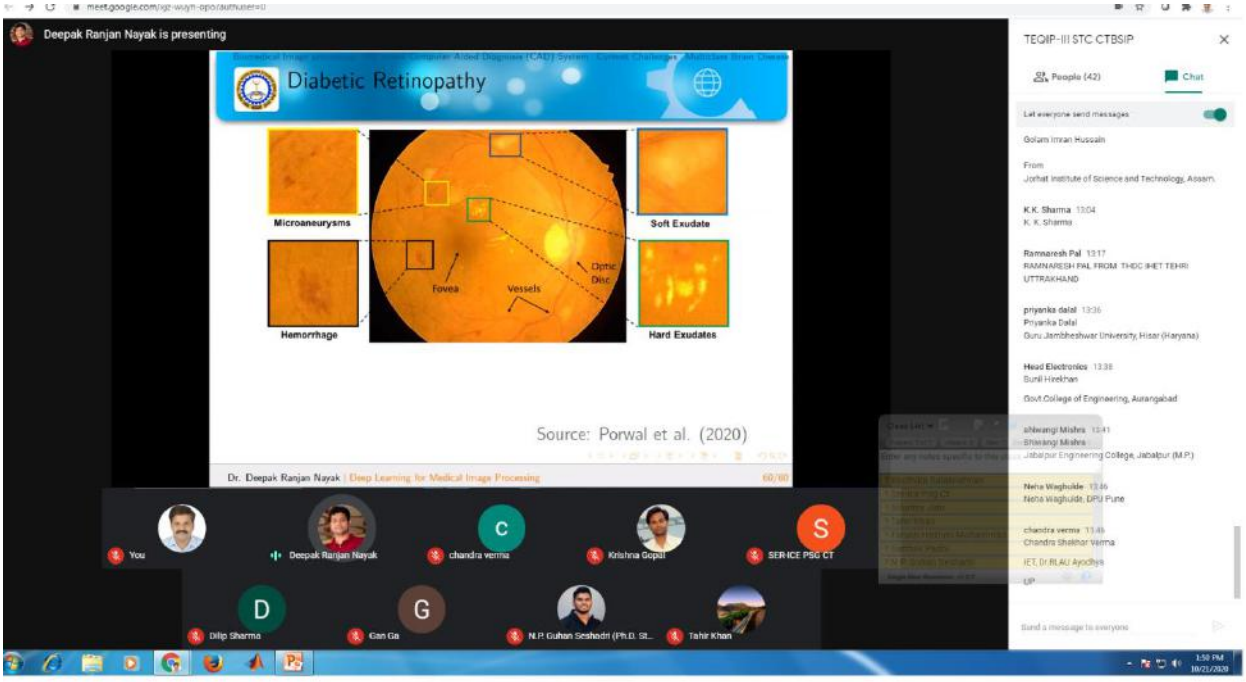
People (37)
Chat
You
Deepak Ranjan Nayak
Nishish Antony
chandra verma
SERVICE PSG CT
Deepak Ranjan Nayak is presenting


You are presenting
You're presenting to everyone
Meeting details
People (40)
Chat
Let everyone send messages
KRISHNA BHANUSHALI 12:20
Krishna Bhanushali
N.P. Guhan Seshadri (Ph.D. Student) 12:20
N P Guhan Seshadri
Sanjay Kumar 12:20
Dr. Sanjay Kumar, Thapar University, Patiala
Mayuri Deshmukh 12:20
Mrs Mayuri Tushar Deshmukh
Sarthak Padhi 12:22
Sarthak Padhi, IIIT Bhubaneswar
Parikha Arora 12:23
Parikha Chawla(Research Scholar), DNDU, Amritsar
DR. A. K. WADHWANI 12:24
Dr. Arun Kumar Wadhwani, MITS, Gwalior
SULOCHANA WADHWANI 12:24
Sulochana Wadhwani, MITS Gwalior
Neha Waghulde 12:24
Neha Kishor Waghulde, DPU, Pimpri, Pune
Dinesh Atal, BME 12:32
Dinesh Kumar Atal, Asstt. Prof, BMED, DCR University of Sc. & Technology (DCRUST), Murthal, Sonipat, Haryana
Send a message to everyone
You
Deepak Ranjan Nayak
chandra verma
Dr. Hariharan Muthusamy
SERICE PSG CT
Sanjay Kumar
Gan Ga
Ravi Shankar reddy gosula
Nidhish Antony


Deepak Ranjan Nayak is presenting
X-ray imaging
X-ray imaging creates pictures of the inside of your body.
The images show the parts of your body in different shades of black and white. This is because different tissues absorb different amounts of radiation.
Calcium in bones absorbs x-rays the most, so bones look white.
Fat and other soft tissues absorb less, and look gray.
Air absorbs the least, so lungs look black.
Dr. Deepak Ranjan Nayak | Deep Learning for Medical Image Processing
TEQIP-III STC CTBSIP
People (41)
Chat
Let everyone send messages
Pradesh
Dr. Hariharan Muthusamy 12:48
Dr. Hariharan Muthusamy, National Institute of Technology Uttrakhand
Hemant Kumar Meena 12:56
Dr Hemant Kumar Meena, Malaviya National Institute of Technology, Jaipur, Rajasthan.
Aditi Bajaj 13:01
Aditi Bajaj
Research Scholar, ECED, Thapar Institute of Engineering and Technology, Patiala, Punjab.
Krishna Gopal 13:03
Prof. Krishna Gopal Kirar
from SATI Vidisha
Golam Imran Hussain 13:04
Golam Imran Hussain
From
Jorhat Institute of Science and Technology, Assam.
K.K. Sharma 13:04
K. K. Sharma
Ramnaresh Pal 12:17
RAMNARESH PAL FROM THDC IHET TEHRI UTTRAKHAND
Send a message to everyone
You
Deepak Ranjan Nayak
chandra verma
Krishna Gopal
SERICE PSG CT
Nidhish Antony
Gan Ga
Ravi Shankar reddy gosula
Hemant Kumar Meena


Deepak Ranjan Nayak is presenting
Deep stacked RVFL-AE based Solution
Nayak et al. (2020). A deep stacked random vector functional link network autoencoder for diagnosis of brain abnormalities and breast cancer. Biomedical Signal Processing and Control, 58, 101860.
Dr. Deepak Ranjan Nayak | Deep Learning for Medical Image Processing
47/80
TEQIP-III STC CTBSIP
People (40)
Chat
Let everyone send messages
Pradesh
Dr. Hariharan Muthusamy 12:48
Dr. Hariharan Muthusamy, National Institute of Technology Uttrakhand
Hemant Kumar Meena 12:56
Dr Hemant Kumar Meena,
Malaviya National Institute of Technology, Jaipur, Rajasthan
Aditi Bajaj 13:01
Aditi Bajaj
Research Scholar, ECED, Thapar Institute of Engineering and Technology, Patiala, Punjab.
Krishna Gopal 13:03
Prof. Krishna Gopal Kirar
from SATI Vidisha
Golam Imran Hussain 13:04
Golam Imran Hussain
From
Jorhat Institute of Science and Technology, Assam.
K.K. Sharma 13:04
K. K. Sharma
Ramnaresh Pal 13:17
RAMNARESH PAL FROM THDC IHET TEHRI UTTRAKHAND
Send a message to everyone
You
Deepak Ranjan Nayak
chandra verma
Krishna Gopal
SERICE PSG CT
N.P. Guhan Seshadri (Ph.D. St...
Gan Ga
Satyender Jaglan
Tahir Khan
1:36 PM
10/21/2020


Deepak Ranjan Nayak is presenting
Diabetic Retinopathy
Microaneurysms
Soft Exudate
Fovea
Vessels
Optic Disc
Hemorrhage
Hard Exudates
Source: Porwal et al. (2020)
Dr. Deepak Ranjan Nayak | Deep Learning for Medical Image Processing
60/80
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People (42)
Chat
Let everyone send messages
Golam Imran Hussain
From
Jorhat Institute of Science and Technology, Assam.
K.K. Sharma 13:04
K. K. Sharma
Ramnaresh Pal 13:17
RAMNARESH PAL FROM THDC IHET TEHRI UTTRAKHAND
priyanka dalal 13:36
Priyanka Dalal
Guru Jambheshwar University, Hisar (Haryana)
Head Electronics 13:38
Sunil Hirekhan
Govt.College of Engineering, Aurangabad
Send a message to everyone
You
Deepak Ranjan Nayak
chandra verma
Krishna Gopal
SERICE PSG CT
Dilip Sharma
Gan Ga
N.P. Guhan Seshadri (Ph.D. St...
Tahir Khan
1:50 PM
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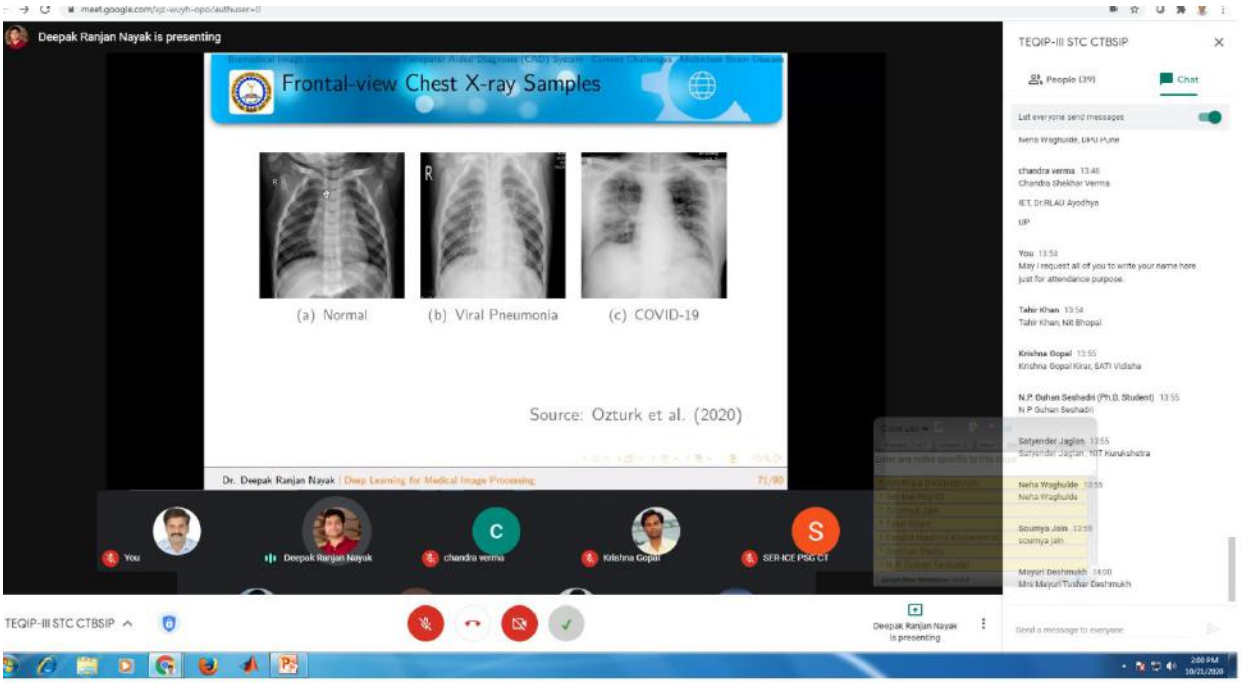
Deepak Ranjan Nayak is presenting
Frontal-view Chest X-ray Samples
(a) Normal
(b) Viral Pneumonia
(c) COVID-19
Source: Ozturk et al. (2020)
Dr. Deepak Ranjan Nayak | Deep Learning for Medical Image Processing
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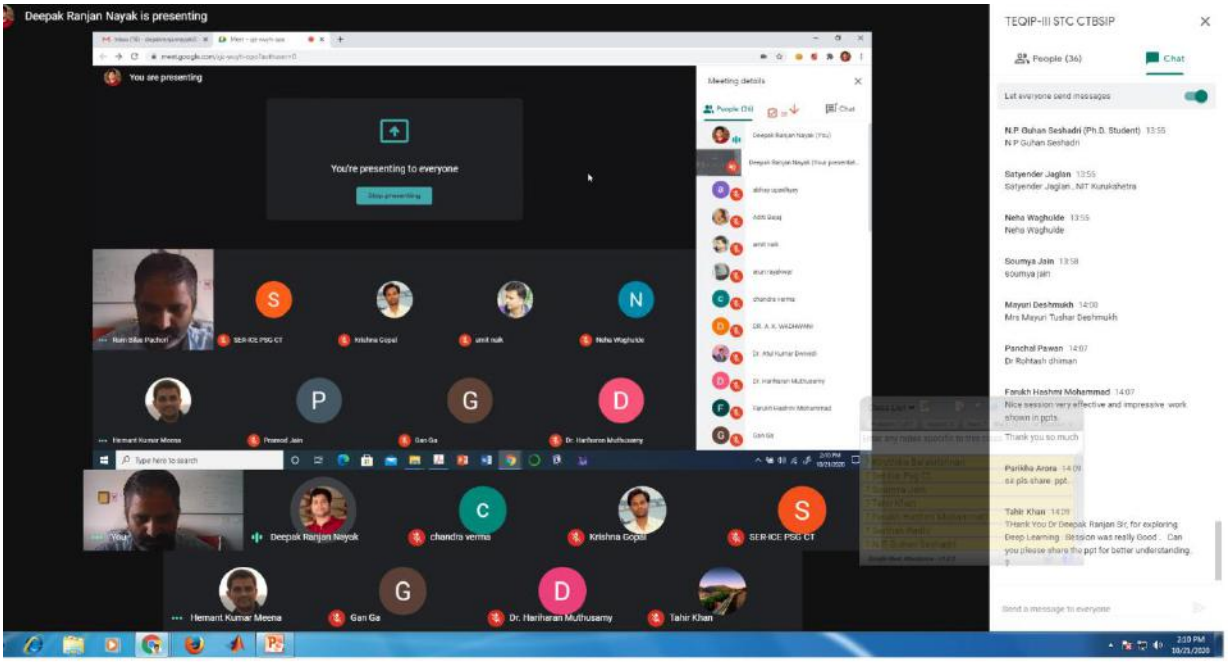
chandra verma
Krishna Gopal
SERICE PSG CT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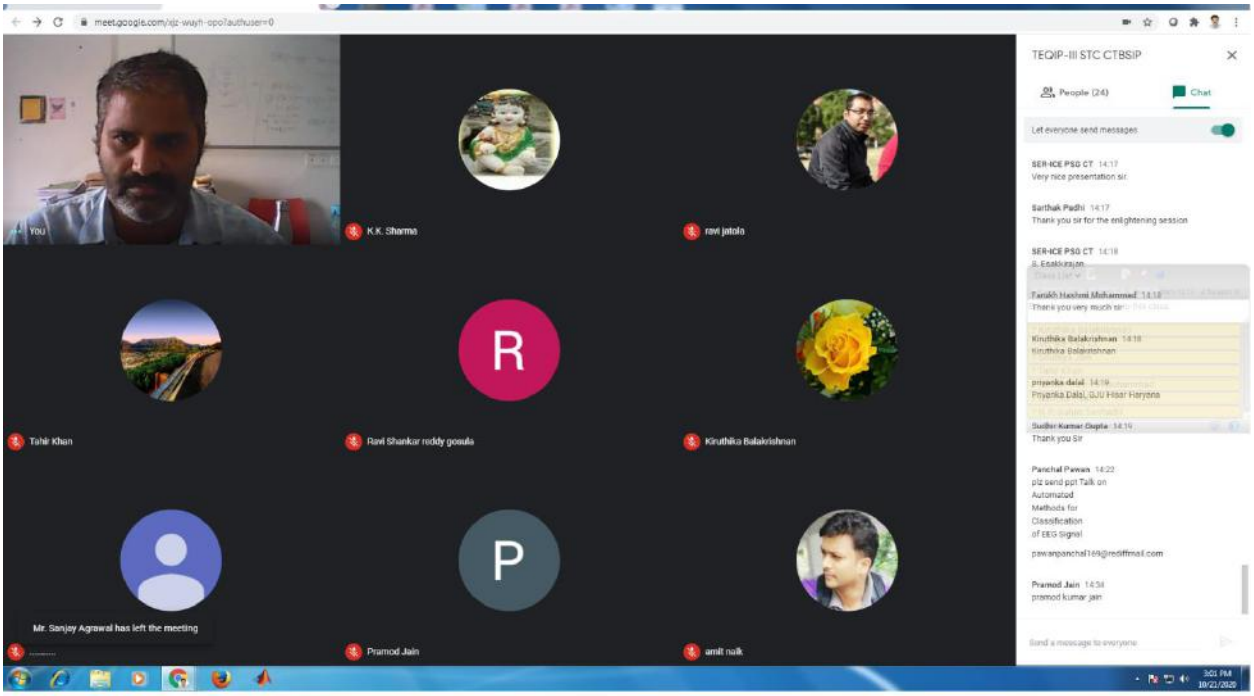
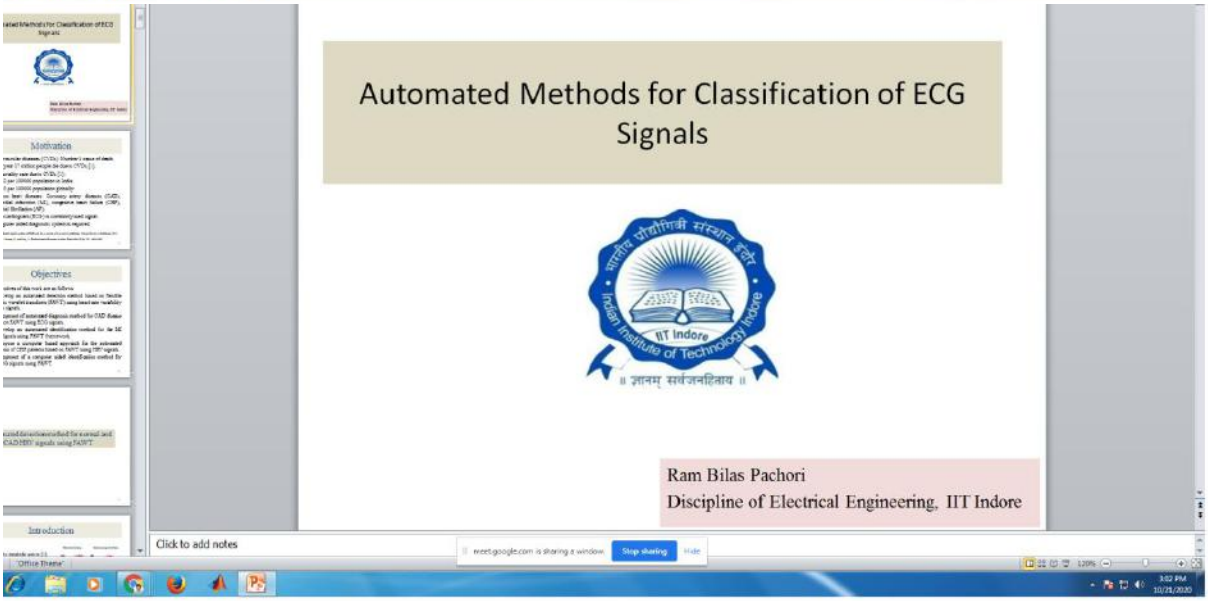
chandra verma
Krishna Gopal
SERICE PSG CT
Hemant Kumar Meena
Gan Ga
Dr. Hariharan Muthusamy
Tahir Khan


meet.google.com/xjz-wuyh-opo?authuser=0
YOU
K.K. Sharma
ravi jatola
Tahir Khan
Ravi Shankar reddy gosula
Kiruthika Balakrishnan
Mr. Sanjay Agrawal has left the meeting
Pramod Jain
amit naik
TEQIP-III STC CTBSIP
People (24)
Chat
Let everyone send messages
SER-ICE PSG CT 14:17
Very nice presentation sir
Sarthak Padhi 14:17
Thank you sir for the enlightening session
SER-ICE PSG CT 14:18
S. Esakkirajan
Kiruthika Balakrishnan 14:19
Kiruthika Balakrishnan
priyanka dalal 14:19
Priyanka Dalal, GJU Hisar Haryana
Sudhir Kumar Gupta 14:19
Thank you Sir
Panchal Pawan 14:22
plz send ppt Talk on
Automated
Methods for
Classification
of EEG Signal
pawanpanchal169@rediffmail.com
Pramod Jain 14:58
pramod kumar jain
Send a message to everyone
3:01 PM
10/21/2020


Automated Methods for Classification of ECG Signals
Motivation
Objectives
Introduction
Ram Bilas Pachori
Discipline of Electrical Engineering, IIT Indore
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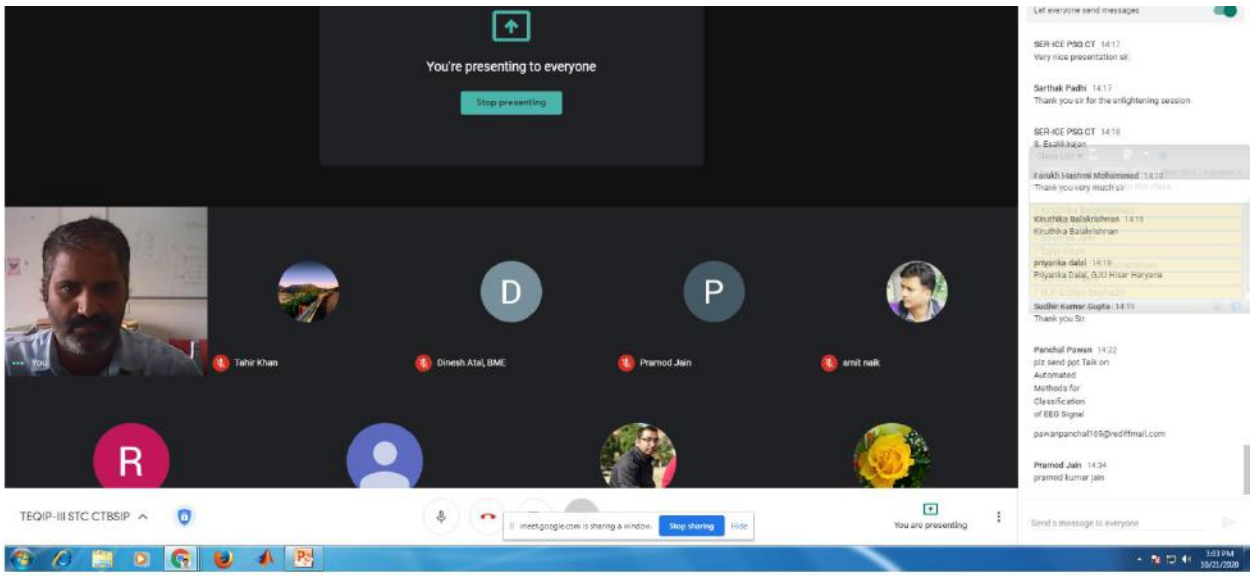
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Tahir Khan
Dinesh Atal, BME
Pramod Jain
amit naik
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Very nice presentation sir.
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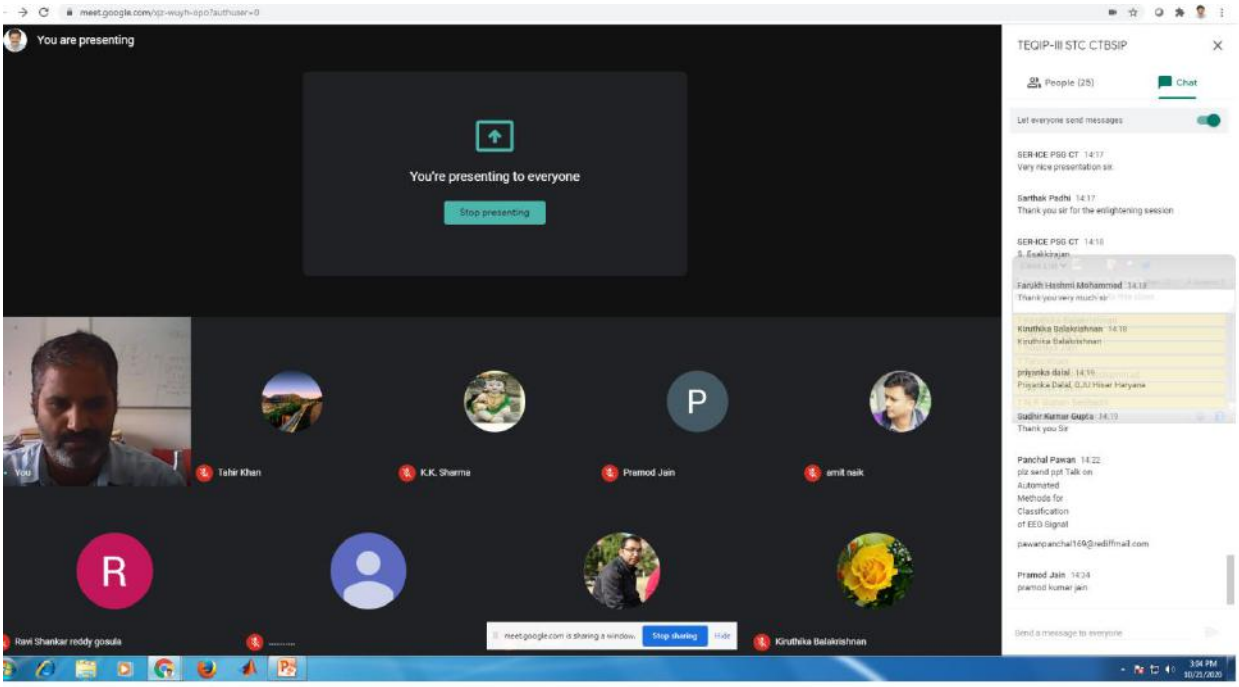
SER-ICE PSG CT 14:18
Thank you very much sir
Kiruthika Balakrishnan 14:18
Kiruthika Balakrishnan
priyanka dalal 14:19
Priyanka Dalal, GJU Hisar Haryana
Sudhir Kumar Gupta 14:19
Thank you Sir
Panchal Pawan 14:22
plz send ppt Talk on
Automated
Method's for
Classification
of EEG Signal
pawanpanchal169@rediffmail.com
Pramod Jain 14:24
pramod kumar jain
Send a message to everyone


You are presenting
You're presenting to everyone
Stop presenting
Tahir Khan
K.K. Sharma
Pramod Jain
amit naik
Ravi Shankar reddy gosula
Kiruthika Balakrishnan
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Sarthak Padhi 14:17
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SER-ICE PSG CT 14:18
Thank you very much sir
Kiruthika Balakrishnan 14:18
Kiruthika Balakrishnan
priyanka dalal 14:19
Priyanka Dalal, GJU Hisar Haryana
Sudhir Kumar Gupta 14:19
Thank you Sir
Panchal Pawan 14:22
plz send ppt Talk on
Automated
Methods for
Classification
of EEG Signal
pawanpanchal169@rediffmail.com
Pramod Jain 14:24
pramod kumar jain
Send a message to everyone

Automated Methods for Classification of ECG Signals

Ram Bilas Pachori
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Automated Methods for Classification of ECG Signals

Ram Bilas Pachori
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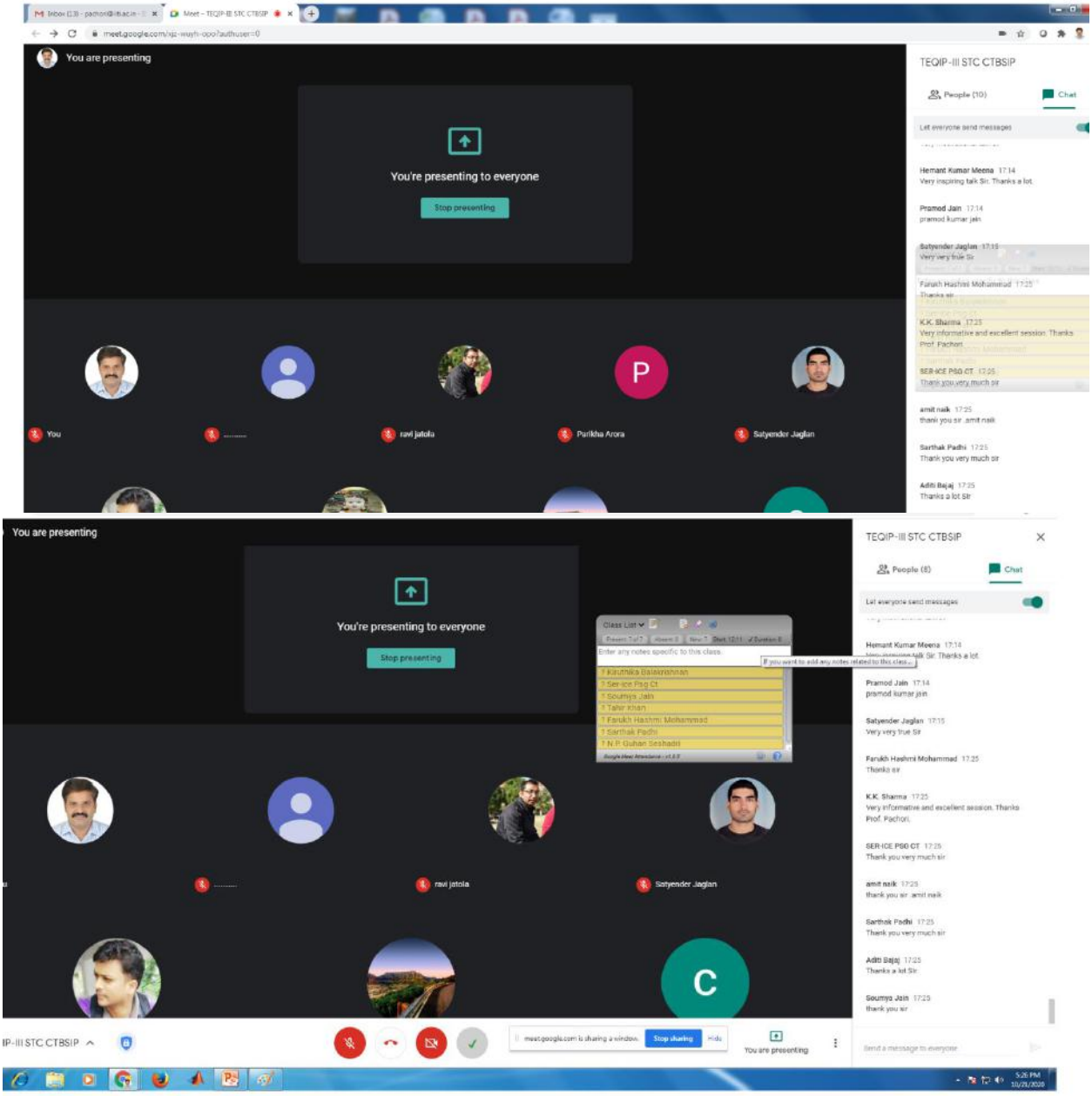
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Chat
Let everyone send messages
Hemant Kumar Meena 17:14
Very inspiring talk Sir. Thanks a lot.
Pramod Jain 17:14
pramod kumar jain
Satyender Jaglan 17:15
Very very true Sir
Farukh Hashmi Mohammad 17:25
Thanks sir
K.K. Sharma 17:25
Very informative and excellent session. Thanks Prof. Pachori
SER-ICE PSG CT 17:25
Thank you very much sir
amit naik 17:25
thank you sir .amit naik
Sarthak Padhi 17:25
Thank you very much sir
Aditi Bajaj 17:25
Thanks a lot Sir
You
ravi jatola
Parikha Arora
Satyender Jaglan
Class List
Enter any notes specific to this class.
If you want to add any notes related to this class...
7 Karuthika Balakrishnan
7 Ser-ice Psg Ct
7 Soumya Jain
7 Tahir Khan
7 Farukh Hashmi Mohammad
7 Sarthak Padhi
7 N P Guhan Seshadri
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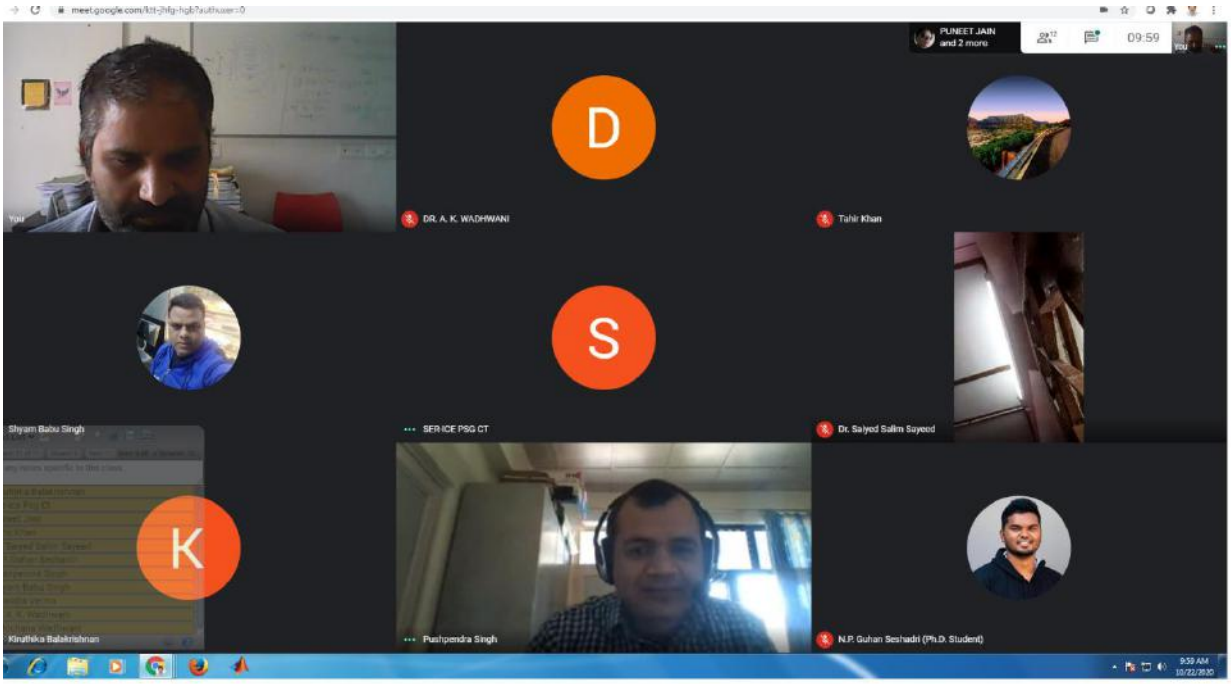
PUNEET JAIN and 2 more
09:59
You
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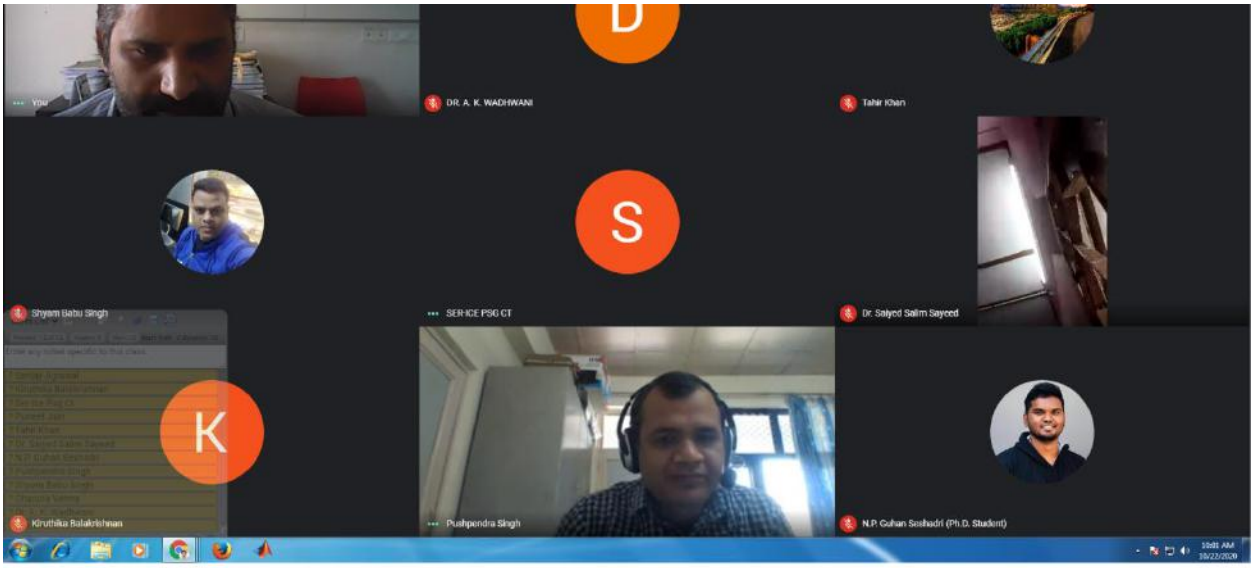
Shyam Babu Singh
SERICE PSG CT
Dr. Saiyed Salim Sayeed
Kiruthika Balakrishnan
Pushpendra Singh
N.P. Guhan Seshadri (Ph.D. Student)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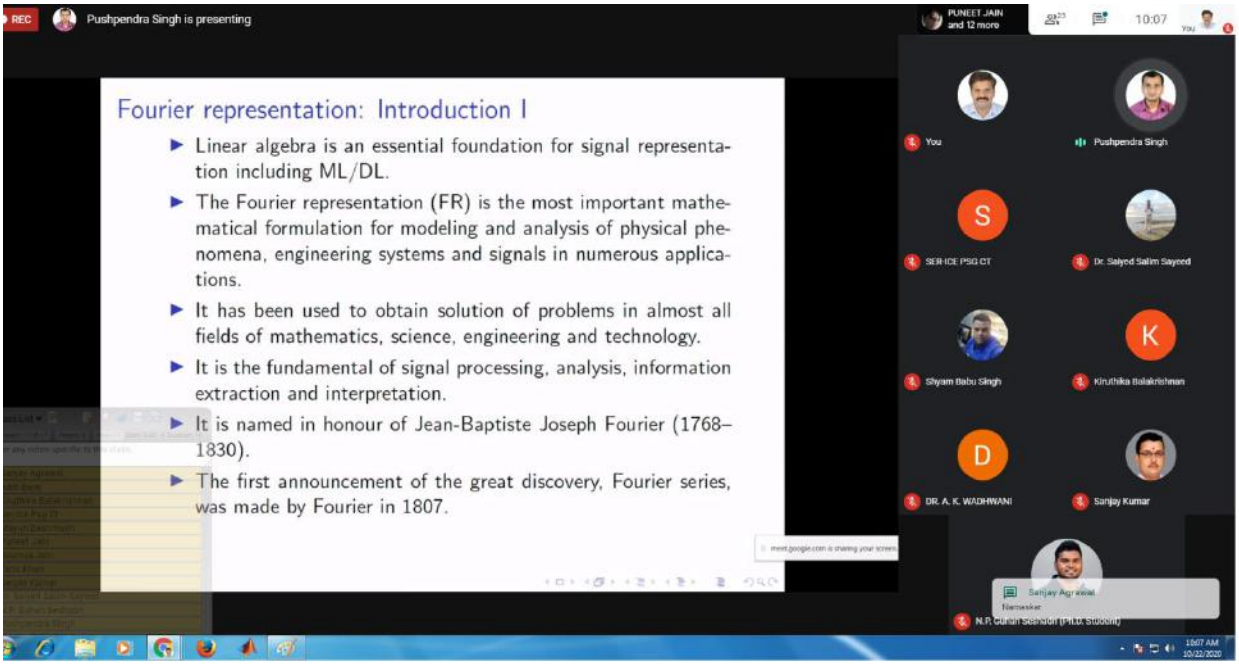
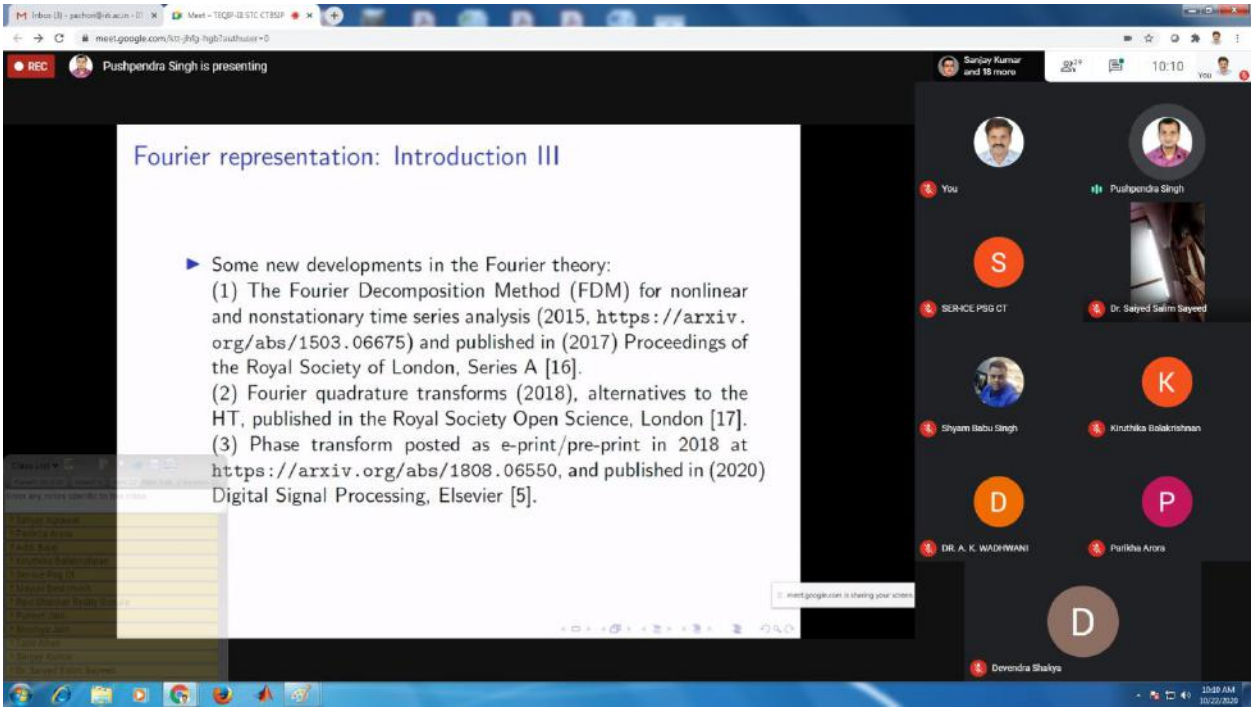
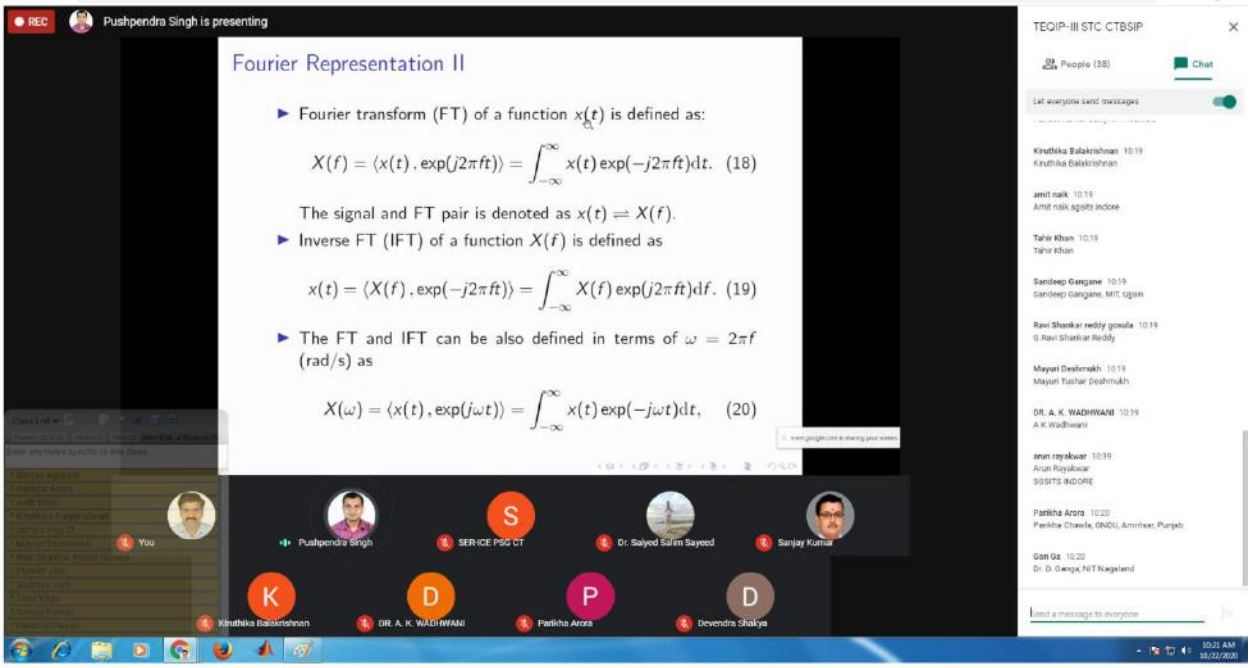

REC
Pushpendra Singh is presenting
PUNEET JAIN and 12 more
10:07
Fourier representation: Introduction I
Linear algebra is an essential foundation for signal representation including ML/DL.
The Fourier representation (FR) is the most important mathematical formulation for modeling and analysis of physical phenomena, engineering systems and signals in numerous applications.
It has been used to obtain solution of problems in almost all fields of mathematics, science, engineering and technology.
It is the fundamental of signal processing, analysis, information extraction and interpretation.
It is named in honour of Jean-Baptiste Joseph Fourier (1768–1830).
The first announcement of the great discovery, Fourier series, was made by Fourier in 1807.
You
Pushpendra Singh
SERVICE PSG CT
Dr. Saiyed Salim Sayeed
Shyam Babu Singh
Kiruthika Balakrishnan
DR. A. K. WADHWANI
Sanjay Kumar
Sanjay Agrawal
Semester
N.P. Gurian Sekhon (PhD Student)


REC
Pushpendra Singh is presenting
Sanjay Kumar and 18 more
10:10
Fourier representation: Introduction III
Some new developments in the Fourier theory:
(1) The Fourier Decomposition Method (FDM) for nonlinear and nonstationary time series analysis (2015, https://arxiv.org/abs/1503.06675) and published in (2017) Proceedings of the Royal Society of London, Series A [16].
(2) Fourier quadrature transforms (2018), alternatives to the HT, published in the Royal Society Open Science, London [17].
(3) Phase transform posted as e-print/pre-print in 2018 at https://arxiv.org/abs/1808.06550, and published in (2020) Digital Signal Processing, Elsevier [5].
You
Pushpendra Singh
SERVICE PSG CT
Dr. Saiyed Salim Sayeed
Shyam Babu Singh
Kiruthika Balakrishnan
DR. A. K. WADHWANI
Parikha Arora
Devendra Shakya


REC
Pushpendra Singh is presenting
Fourier Representation II
Fourier transform (FT) of a function $x(t)$ is defined as:
$$X(f) = \langle x(t), \exp(j2\pi ft)\rangle = \int_{-\infty}^{\infty} x(t)\exp(-j2\pi ft)\mathrm{d}t. \quad (18)$$
The signal and FT pair is denoted as $x(t) \rightleftharpoons X(f)$.
Inverse FT (IFT) of a function $X(f)$ is defined as
$$x(t) = \langle X(f), \exp(-j2\pi ft)\rangle = \int_{-\infty}^{\infty} X(f)\exp(j2\pi ft)\mathrm{d}f. \quad (19)$$
The FT and IFT can be also defined in terms of $\omega = 2\pi f$ (rad/s) as
$$X(\omega) = \langle x(t), \exp(j\omega t)\rangle = \int_{-\infty}^{\infty} x(t)\exp(-j\omega t)\mathrm{d}t, \quad (20)$$
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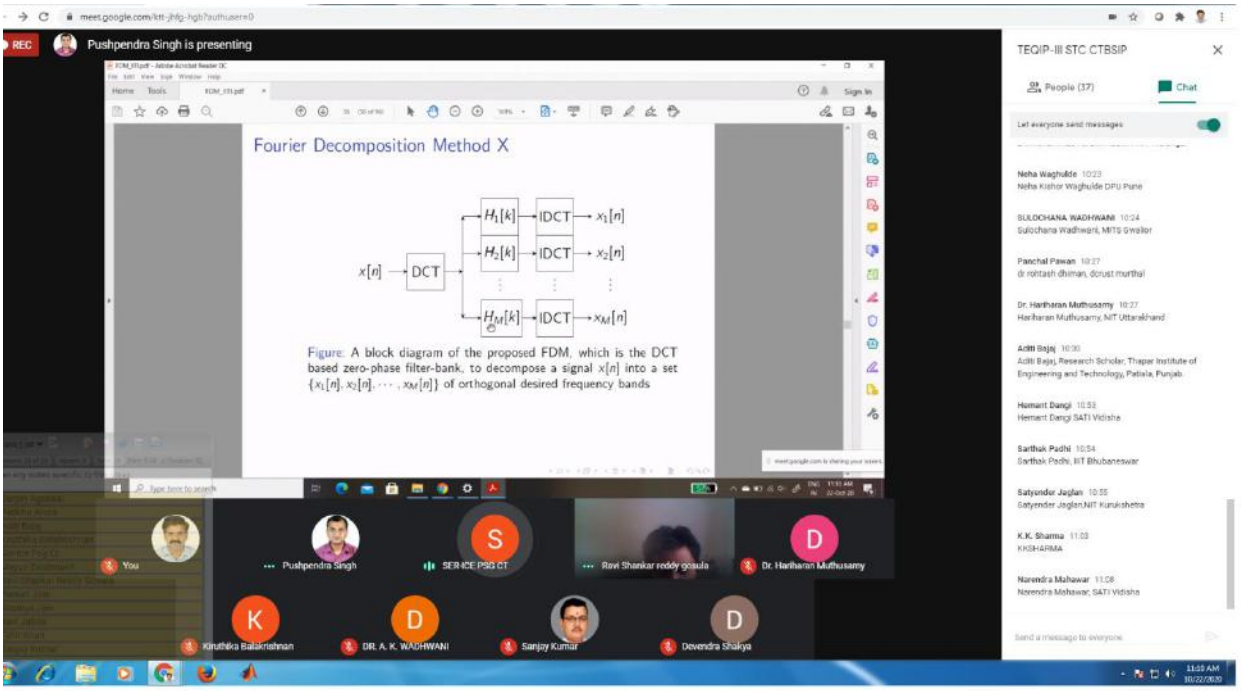
Sanjay Kumar
Kiruthika Balakrishnan
DR. A. K. WADHWANI
Parlikha Arora
Devendra Shakya


REC
Pushpendra Singh is presenting
Fourier Decomposition Method X
$x[n]$
DCT
$H_1[k]$
$H_2[k]$
$H_M[k]$
IDCT
$x_1[n]$
$x_2[n]$
$x_M[n]$
Figure: A block diagram of the proposed FDM, which is the DCT based zero-phase filter-bank, to decompose a signal $x[n]$ into a set $\{x_1[n], x_2[n], \cdots, x_M[n]\}$ of orthogonal desired frequency bands
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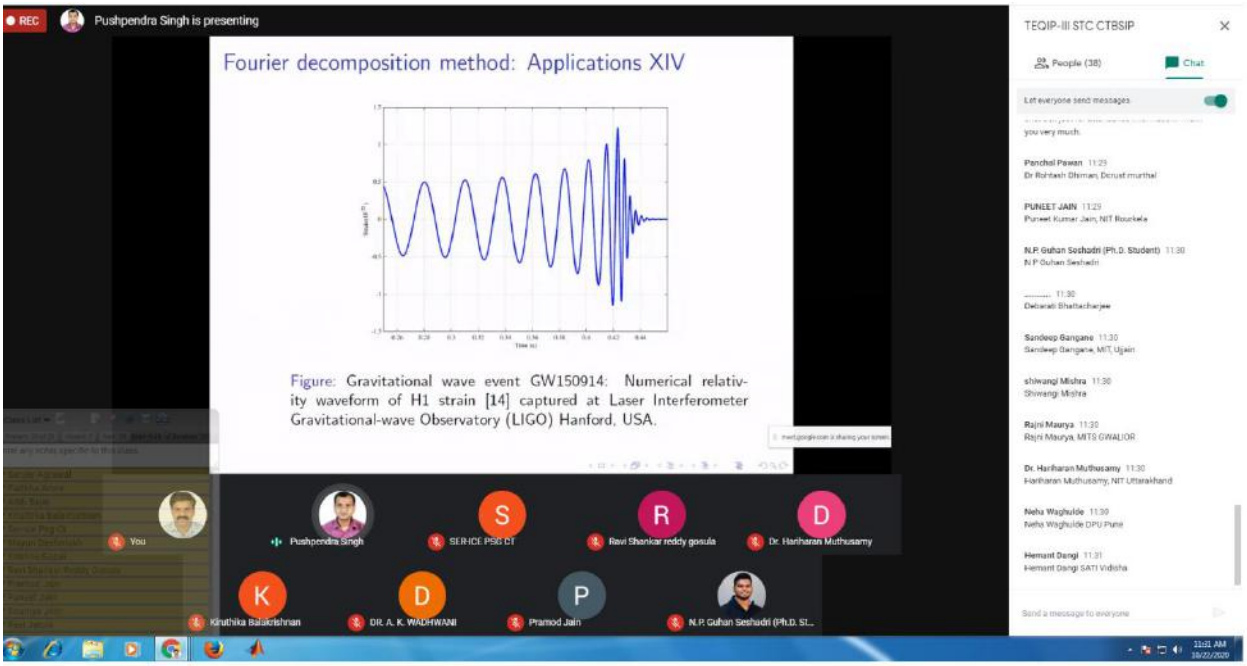
DR. A. K. WADHWANI
Sanjay Kumar
Devendra Shakya


REC
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Fourier decomposition method: Applications XIV
Figure: Gravitational wave event GW150914: Numerical relativity waveform of H1 strain [14] captured at Laser Interferometer Gravitational-wave Observatory (LIGO) Hanford, USA.
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Panchal Pawan 11:29
Dr Rohitash Dhiman, Dcrust murthal
PUNEET JAIN 11:29
Puneet Kumar Jain, NIT Rourkela
N.P. Guhan Seshadri (Ph.D. Student) 11:30
N P Guhan Seshadri
11:30
Debarati Bhattacharjee
Sandeep Gangane 11:30
Sandeep Gangane, MIT, Ujjain
shiwangi Mishra 11:30
Shiwangi Mishra
Rajni Maurya 11:30
Rajni Maurya, MITS GWALIOR
Dr. Hariharan Muthusamy 11:30
Hariharan Muthusamy, NIT Uttarakhand
Neha Waghulde 11:30
Neha Waghulde DPU Pune
Hemant Dangi 11:31
Hemant Dangi SATI Vidisha
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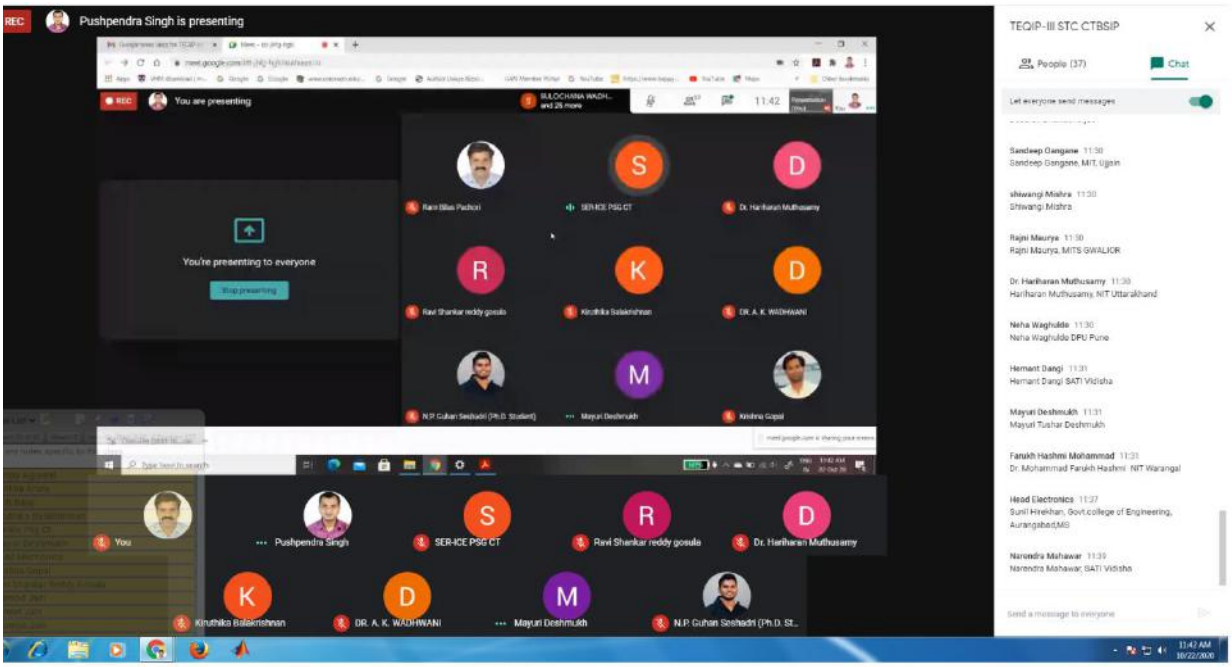
Dr. Hariharan Muthusamy
Kiruthika Balakrishnan
DR. A. K. WADHWANI
Pramod Jain
N.P. Guhan Seshadri (Ph.D. St...
11:31 AM
10/22/2020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11:42
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Ravi Bilas Pachori
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Dr. Hariharan Muthusamy
Ravi Shankar reddy gosula
Kiruthika Balakrishnan
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N.P. Guhan Seshadri (Ph.D. Student)
Mayuri Deshmukh
Krishna Gopal
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Sandeep Gangane, MIT, Ujjain
shiwangi Mishra 11:30
Shiwangi Mishra
Rajni Maurya 11:30
Rajni Maurya, MITS GWALIOR
Dr. Hariharan Muthusamy 11:30
Hariharan Muthusamy, NIT Uttarakhand
Neha Waghulde 11:30
Neha Waghulde DPU Pune
Hemant Dangi 11:31
Hemant Dangi SATI Vidisha
Mayuri Deshmukh 11:31
Mayuri Tushar Deshmukh
Faruk Hashmi Mohammad 11:31
Dr. Mohammad Faruk Hashmi NIT Warangal
Head Electronics 11:37
Sunil Hirekhan, Govt.college of Engineering, Aurangabad,MS
Narendra Mahawar 11:39
Narendra Mahawar, SATI Vidisha
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N.P. Guhan Seshadri (Ph.D. St...
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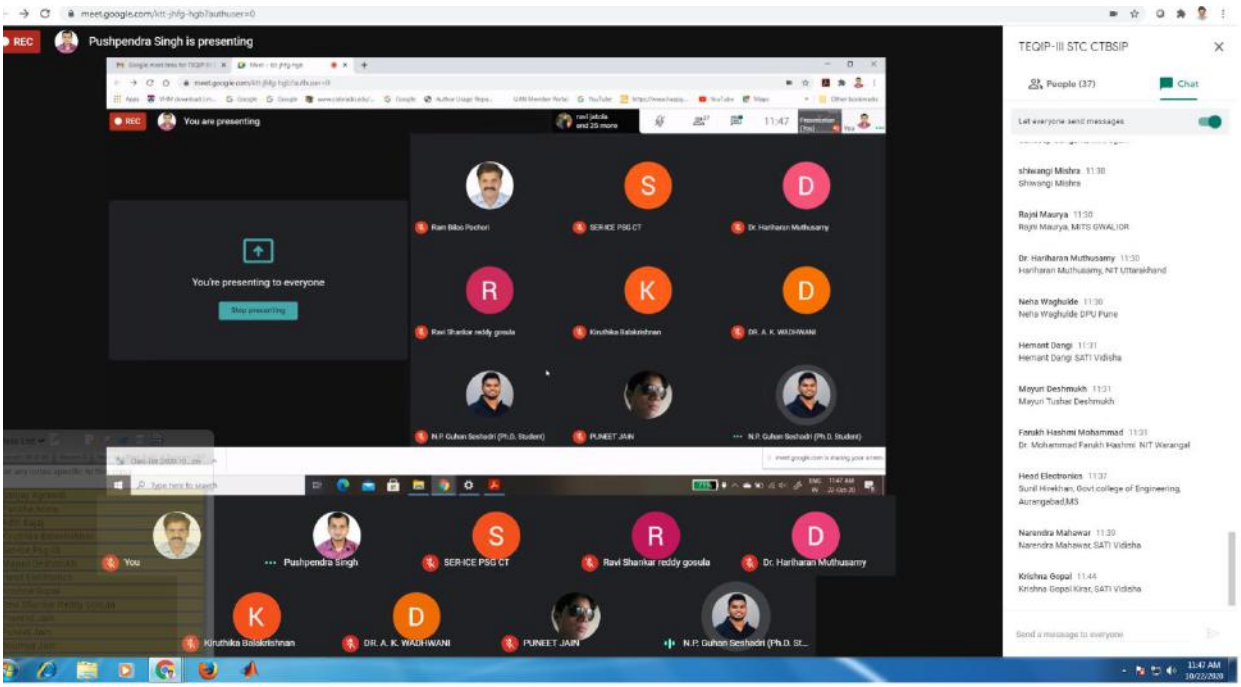
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Rajni Maurya 11:38
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Hariharan Muthusamy, NIT Uttarakhand
Neha Waghulde 11:39
Neha Waghulde DPU Pune
Hemant Dangi 11:41
Hemant Dangi SATI Vidisha
Mayuri Deshmukh 11:41
Mayuri Tushar Deshmukh
Farukh Hashmi Mohammad 11:41
Dr. Mohammad Farukh Hashmi NIT Warangal
Head Electronics 11:37
Sunil Hirekhan, Govt college of Engineering, Aurangabad,MS
Narendra Mahawar 11:39
Narendra Mahawar, SATI Vidisha
Krishna Gopal 11:44
Krishna Gopal Kirar, SATI Vidisha
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You
abhay upadhyay
PUNEET JAIN
KRISHNA BHANUSHALI
N.P. Guhan Seshadri (Ph.D. Student)
Tahir Khan
Dr. Hariharan Muthusamy
Kiruthika Balakrishnan
Rajesh Pandey
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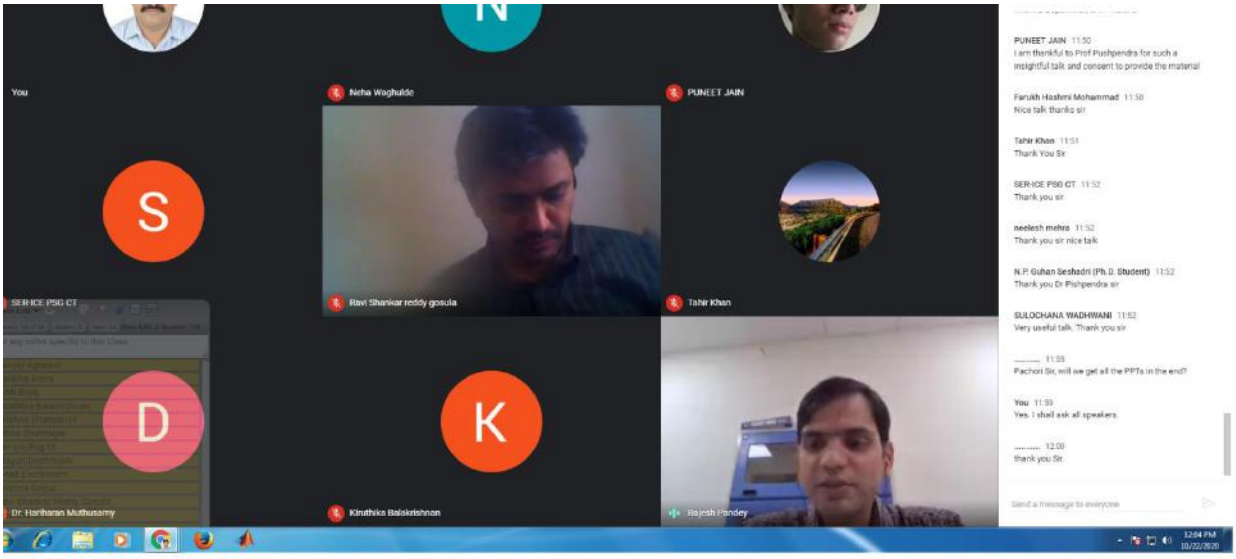
PUNEET JAIN 11:50
I am thankful to Prof Pushpendra for such a insightful talk and consent to provide the material
Farukh Hashmi Mohammad 11:50
Nice talk thanks sir
Tahir Khan 11:51
Thank You Sir
SER-ICE PSG CT 11:52
Thank you sir
neelesh mehra 11:52
Thank you sir nice talk
N.P. Guhan Seshadri (Ph.D. Student) 11:52
Thank you Dr Pushpendra sir
SULOCHANA WADHWANI 11:52
Very useful talk. Thank you sir
11:52
Pochori Sir, will we get all the PPTs in the end?
You 11:59
Yes, I shall ask all speakers.
12:00
thank you Sir.
Send a message to everyone
12:00 PM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Dr. Hariharan Muthusamy
Kiruthika Balakrishnan
Rajesh Pandey
PUNEET JAIN 11:50
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N.P. Guhan Seshadri (Ph.D. Student) 11:52
Thank you Dr Pishpendra sir
SULOCHANA WADHWANI 11:52
Very useful talk. Thank you sir
..... 11:55
Pachori Sir, will we get all the PPTs in the end?
You 11:59
Yes. I shall ask all speakers.
..... 12:00
thank you Sir.
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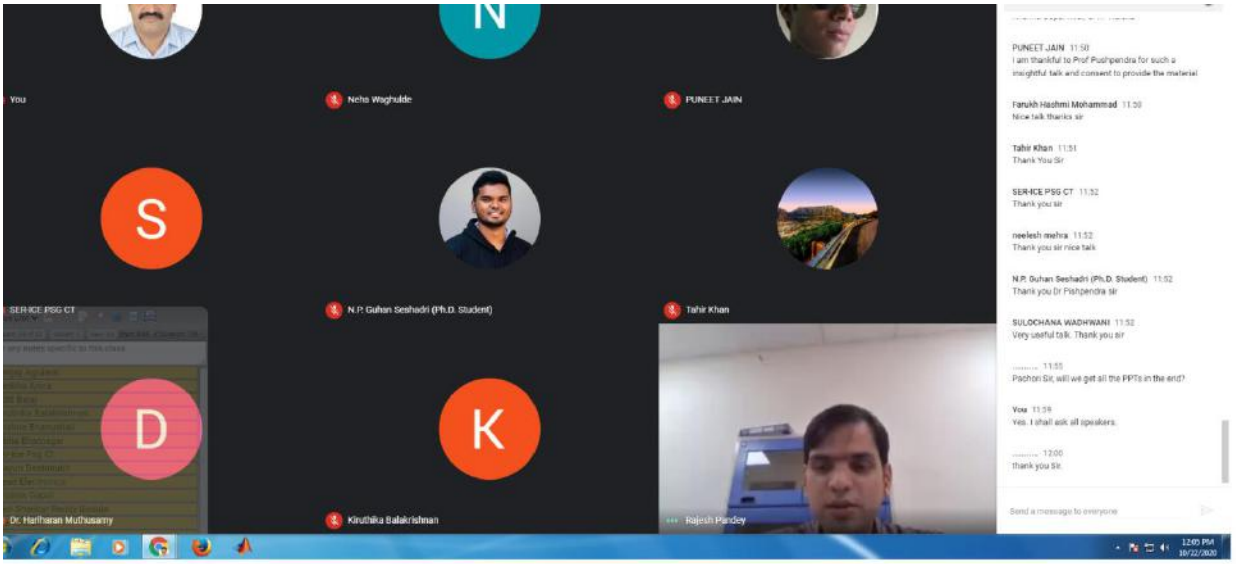
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PUNEET JAIN
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N.P. Guhan Seshadri (Ph.D. Student)
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Dr. Hariharan Muthusamy
Kiruthika Balakrishnan
Rajesh Pandey
PUNEET JAIN 11:50
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..... 12:00
thank you Sir.
Send a message to everyone
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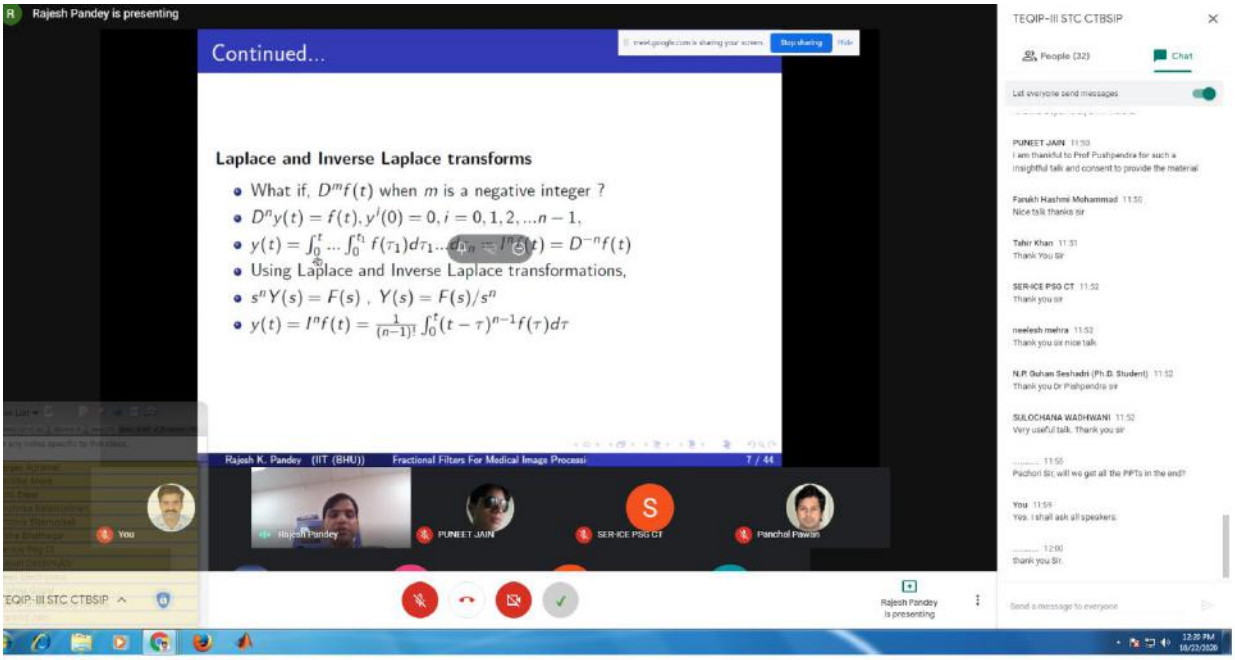
Rajesh Pandey is presenting
Continued...
Laplace and Inverse Laplace transforms
What if, $D^m f(t)$ when m is a negative integer ?
$D^n y(t) = f(t), y^i(0) = 0, i = 0, 1, 2, ...n-1,$
$y(t) = \int_0^t ... \int_0^{\tau_1} f(\tau_1) d\tau_1 ... d\tau_n = I^n f(t) = D^{-n} f(t)$
Using Laplace and Inverse Laplace transformations,
$s^n Y(s) = F(s)$, $Y(s) = F(s)/s^n$
$y(t) = I^n f(t) = \frac{1}{(n-1)!} \int_0^t (t-\tau)^{n-1} f(\tau) d\tau$
Rajesh K. Pandey (IIT (BHU)) Fractional Filters For Medical Image Processi 7 / 44
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I am thankful to Prof Pushpendra for such a insightful talk and consent to provide the material
Farukh Hashmi Mohammad 11:50
Nice talk thanks sir
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Thank You Sir
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Thank you sir
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11:55
Pachori Sir, will we get all the PPTs in the end?
You 11:59
Yes. I shall ask all speakers.
12:00
thank you Sir.
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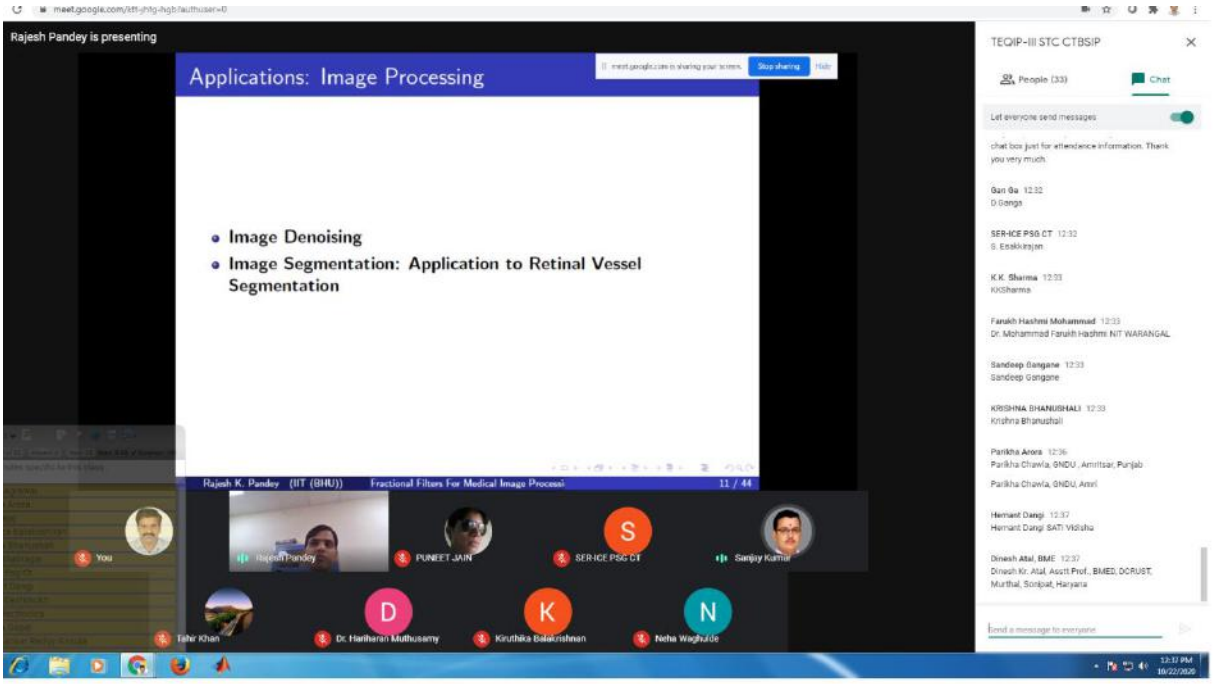
PUNEET JAIN
SER-ICE PSG CT
Panchal Pawan
Rajesh Pandey is presenting


Rajesh Pandey is presenting
Applications: Image Processing
Image Denoising
Image Segmentation: Application to Retinal Vessel Segmentation
Rajesh K. Pandey (IIT (BHU)) Fractional Filters For Medical Image Processi 11 / 44
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Gan Ga 12:32
D Gangs
SER-ICE PSG CT 12:32
S. Esakkirajan
K.K. Sharma 12:33
KKSharma
Farukh Hashmi Mohammad 12:33
Dr. Mohammad Farukh Hashmi NIT WARANGAL
Sandeep Gangane 12:33
Sandeep Gangane
KRISHNA BHANUSHALI 12:33
Krishna Bhanushali
Parikha Arora 12:36
Parikha Chawla, GNDU , Amritsar, Punjab
Parikha Chawla, GNDU, Amri
Hemant Dangi 12:37
Hemant Dangi SATI Vidisha
Dinesh Atal, BME 12:37
Dinesh Kr. Atal, Asstt.Prof., BMED, DCRUST, Murthal, Sonipat, Haryana
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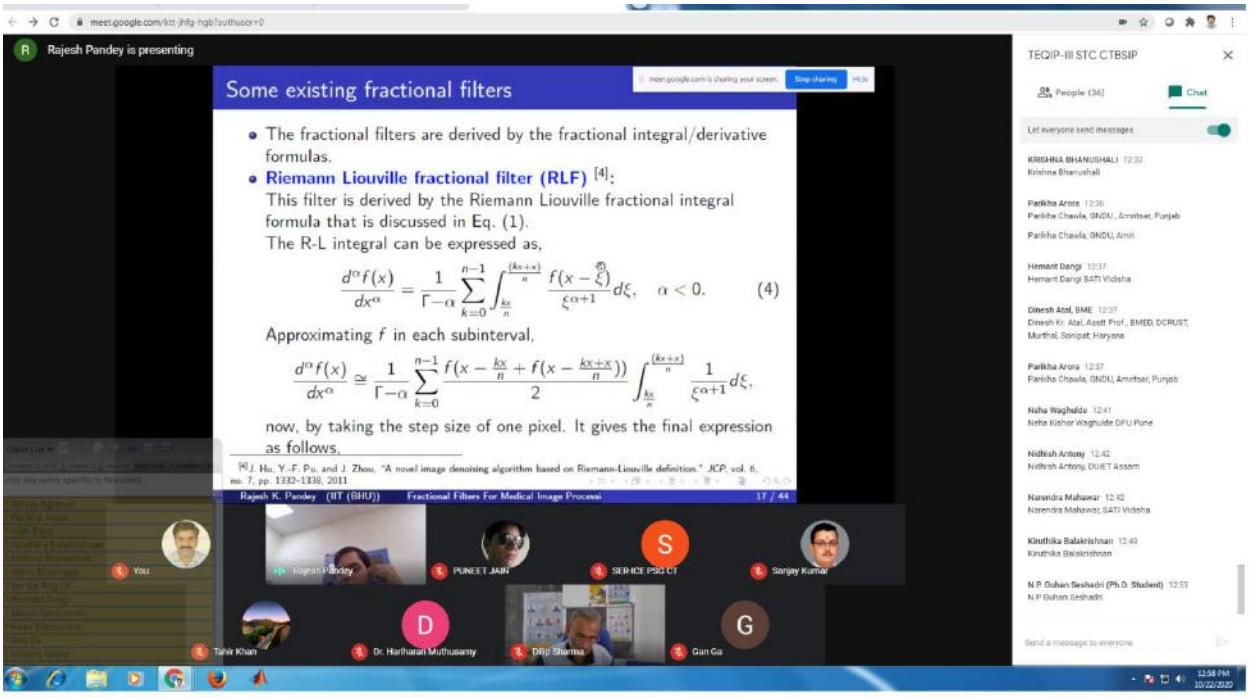
SER-ICE PSG CT
Sanjay Kumar
Tahir Khan
Dr. Hariharan Muthusamy
Kiruthika Balakrishnan
Neha Waghude


Rajesh Pandey is presenting
Some existing fractional filters
• The fractional filters are derived by the fractional integral/derivative formulas.
• Riemann Liouville fractional filter (RLF) [4]:
This filter is derived by the Riemann Liouville fractional integral formula that is discussed in Eq. (1).
The R-L integral can be expressed as,
$$\frac{d^{\alpha}f(x)}{dx^{\alpha}} = \frac{1}{\Gamma-\alpha}\sum_{k=0}^{n-1}\int_{\frac{kx}{n}}^{\frac{(kx+x)}{n}} \frac{f(x-\xi)}{\xi^{\alpha+1}}d\xi, \quad \alpha < 0. \qquad (4)$$
Approximating f in each subinterval,
$$\frac{d^{\alpha}f(x)}{dx^{\alpha}} \cong \frac{1}{\Gamma-\alpha}\sum_{k=0}^{n-1}\frac{f(x-\frac{kx}{n}+f(x-\frac{kx+x}{n}))}{2}\int_{\frac{kx}{n}}^{\frac{(kx+x)}{n}}\frac{1}{\xi^{\alpha+1}}d\xi,$$
now, by taking the step size of one pixel. It gives the final expression as follows,
[4] J. Hu, Y.-F. Pu, and J. Zhou, "A novel image denoising algorithm based on Riemann-Liouville definition," JCP, vol. 6, no. 7, pp. 1332-1338, 2011
Rajesh K. Pandey (IIT (BHU)) Fractional Filters For Medical Image Processi 17 / 44
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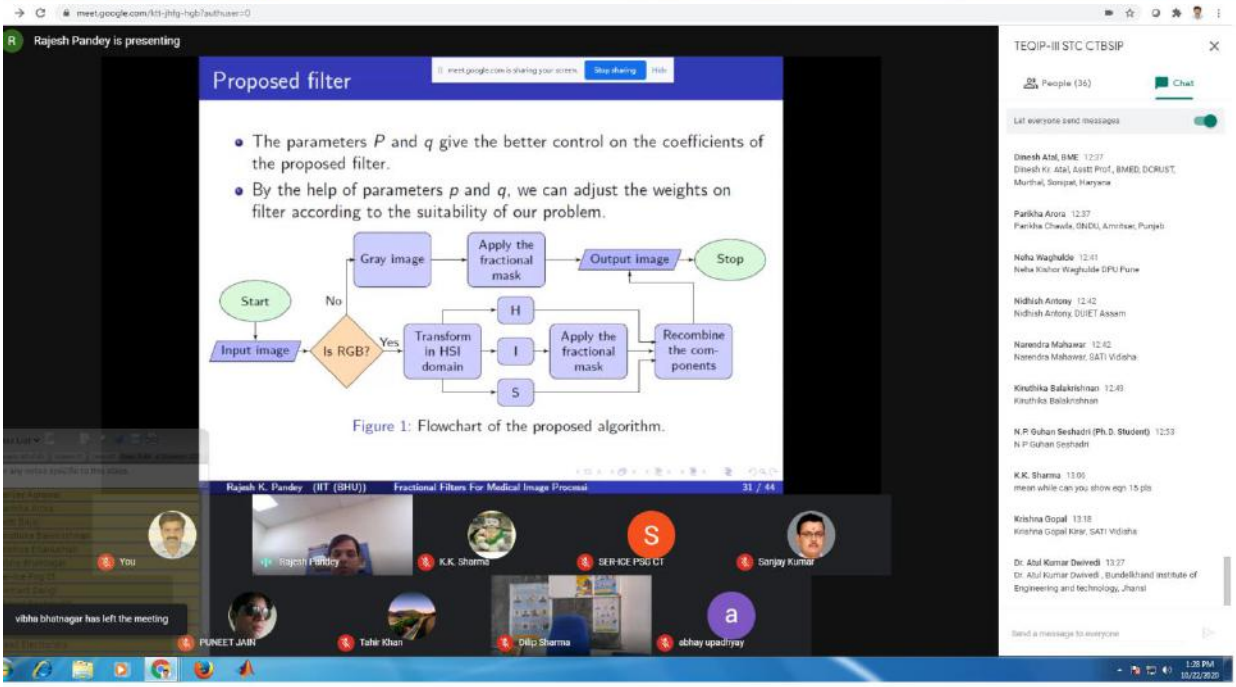
SERVICE PSG CT
Sanjay Kumar
Tahir Khan
Dr. Hariharan Muthusamy
Dilip Sharma
Gan Ga


Rajesh Pandey is presenting
Proposed filter
• The parameters P and q give the better control on the coefficients of the proposed filter.
• By the help of parameters p and q, we can adjust the weights on filter according to the suitability of our problem.
Start
Input image
Is RGB?
No
Yes
Gray image
Apply the fractional mask
Output image
Stop
Transform in HSI domain
H
I
S
Apply the fractional mask
Recombine the components
Figure 1: Flowchart of the proposed algorithm.
Rajesh K. Pandey (IIT (BHU)) Fractional Filters For Medical Image Processi 31 / 44
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You
K.K. Sharma
SERVICE PSG CT
Sanjay Kumar
vibha bhatnagar has left the meeting
PUNEET JAIN
Tahir Khan
Dilip Sharma
abhay upadhyay

Rajesh Pandey is presenting

Comparison with BM3D and WNNM method

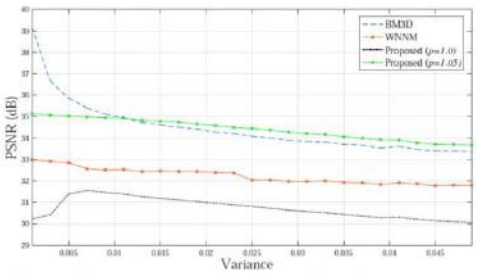

Figure 9: PSNR versus variance comparison of BM3D (block matching and 3D) and WNNM (weighted nuclear norm minimization) methods with proposed method of image in Fig. 8.

Rajesh K. Pandey (IIT (BHU)) Fractional Filters For Medical Image Processi 40 / 44

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Neha Waghulde 12:41
Neha Kishor Waghulde DPU Pune

Nidhish Antony 12:42
Nidhish Antony, DUIET Assam

Narendra Mahawar 12:43
Narendra Mahawar, SATI Vidisha

Kiruthika Balakrishnan 12:49
Kiruthika Balakrishnan

N.P. Guhan Seshadri (Ph.D. Student) 12:53
N P Guhan Seshadri

K.K. Sharma 13:06
mean while can you show eqn 15 pls

Krishna Gopal 13:18
Krishna Gopal Kirar, SATI Vidisha

Dr. Atul Kumar Dwivedi 13:27
Dr. Atul Kumar Dwivedi , Bundelkhand Institute of Engineering and technology, Jhansi

Dr. Atul Kumar Dwivedi 13:28
voice is not coming

now ok

Sarthak Padhi 13:29
Sarthak Padhi, IIIT Bhubaneswar

Send a message to everyone

You | Rajesh Pandey | K.K. Sharma | SERICE PSG CT | Sanjay Kumar | PUNEET JAIN | Tahir Khan | Dilip Sharma | abhay upadhyay

1:41 PM 10/22/2020

Rajesh Pandey is presenting

Proposed filter

- **Proposed filter** [9]:
  The K–operator [10] of a regular function f for order α is defined as,

$$(K_a^{\beta} f)(x) = p \int_a^x k_\alpha(x,\xi) f(\xi) d\xi + q \int_x^b k_\alpha(\xi, x) f(\xi) d\xi \qquad (18)$$

  where $a < x < b$, α is a positive real number and $P = \{a, x, b, p, q\}$ is a parameter set.
- K-operator is compatible with arbitrary kernel.
- Riesz kernel:

$$k_\alpha(x,\xi) = \frac{1}{\gamma_n(\alpha)} \begin{cases} |x-\xi|^{(\alpha-n)} & \text{for} \quad \alpha - n \neq 0, 2, 4, \ldots \\ |x-\xi|^{(\alpha-n)} \log\left(\frac{1}{|x-\xi|}\right) & \text{for} \quad \alpha - n = 0, 2, 4, \ldots \end{cases} \qquad (19)$$

[9] A. K. Shukla, R. K. Pandey, S. Yadav, and R. B. Pachori, "Generalized fractional filter-based algorithm for image denoising," *Circuits, Systems, and Signal Processing*, pp. 1–28, 2019

[10] O. P. Agrawal, "Generalized variational problems and Euler–Lagrange equations," *Computers & Mathematics with Applications*, vol. 59, no. 5, pp. 1852–1864, 2010

Rajesh K. Pandey (IIT (BHU)) Fractional Filters For Medical Image Processi 25 / 44

TEQIP-III STC CTBSIP

People (36) Chat

Let everyone send messages

Nidhish Antony 12:42
Nidhish Antony, DUIET Assam

Narendra Mahawar 12:43
Narendra Mahawar, SATI Vidisha

Kiruthika Balakrishnan 12:49
Kiruthika Balakrishnan

N.P. Guhan Seshadri (Ph.D. Student) 12:53
N P Guhan Seshadri

K.K. Sharma 13:06
mean while can you show eqn 15 pls

Krishna Gopal 13:18
Krishna Gopal Kirar, SATI Vidisha

Dr. Atul Kumar Dwivedi 13:27
Dr. Atul Kumar Dwivedi , Bundelkhand Institute of Engineering and technology, Jhansi

Dr. Atul Kumar Dwivedi 13:28
voice is not coming

now ok

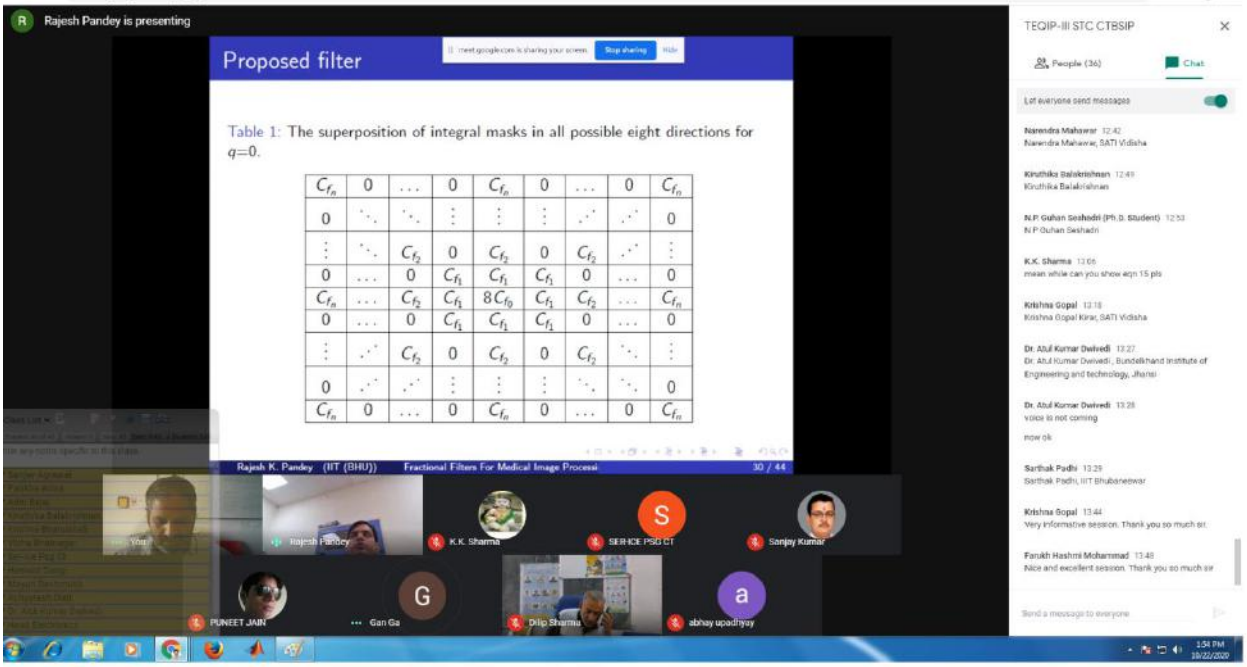
Sarthak Padhi 13:29
Sarthak Padhi, IIIT Bhubaneswar

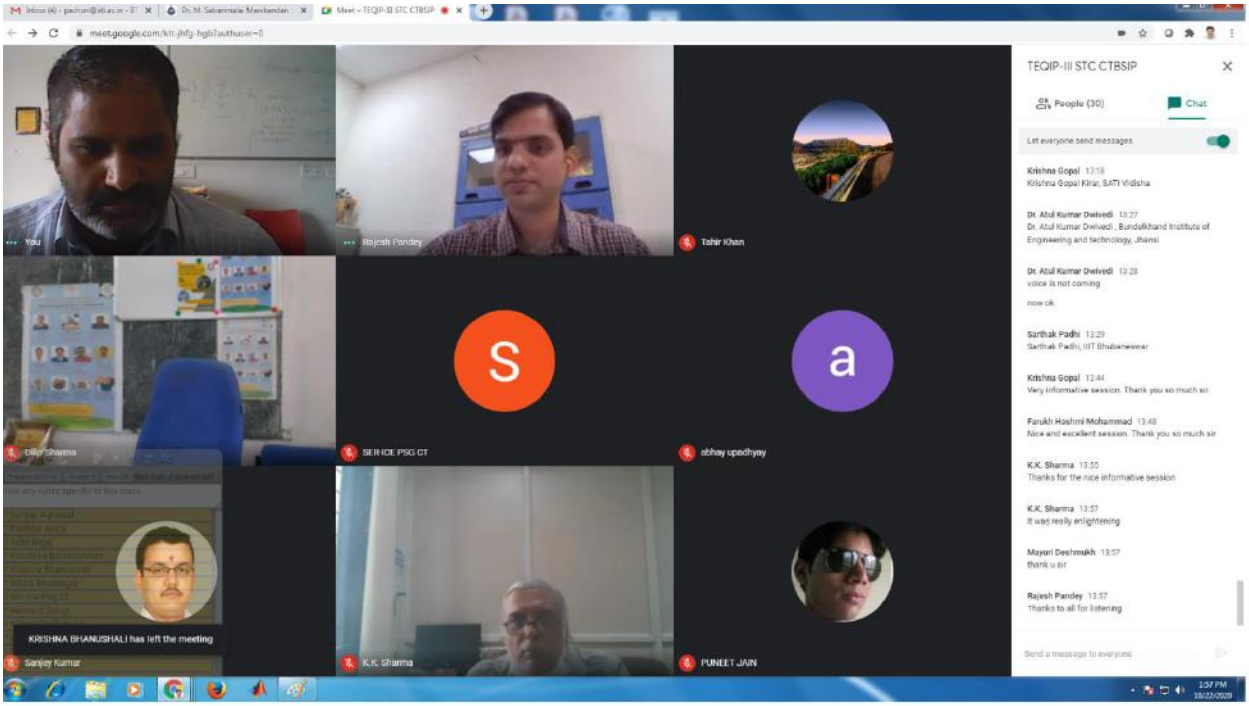
Krishna Gopal 13:44
Very informative session. Thank you so much sir.

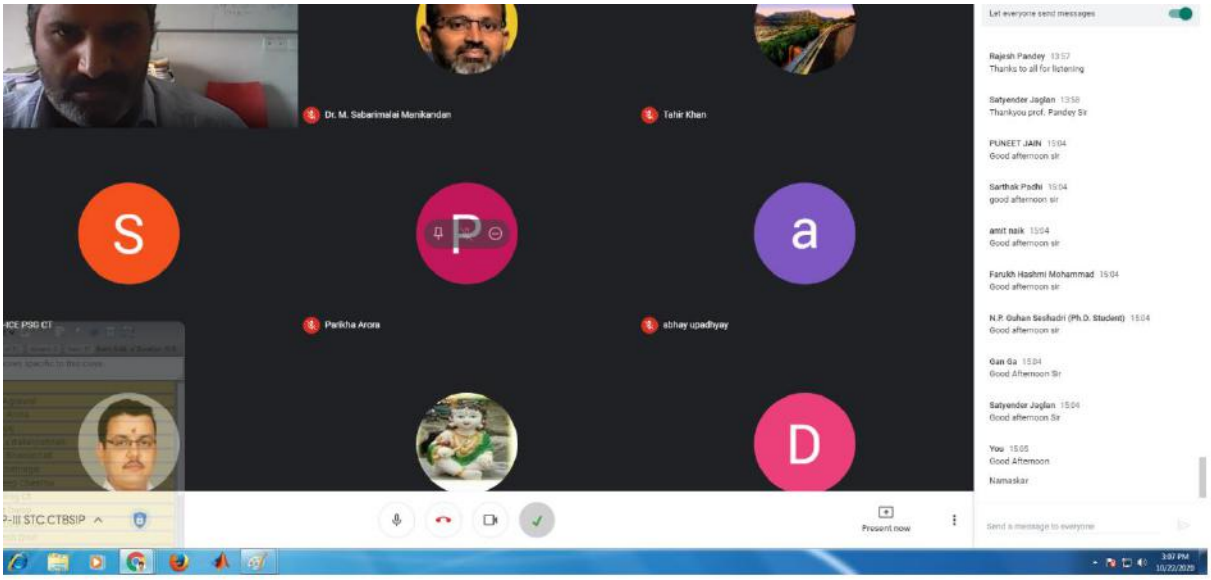
Send a message to everyone

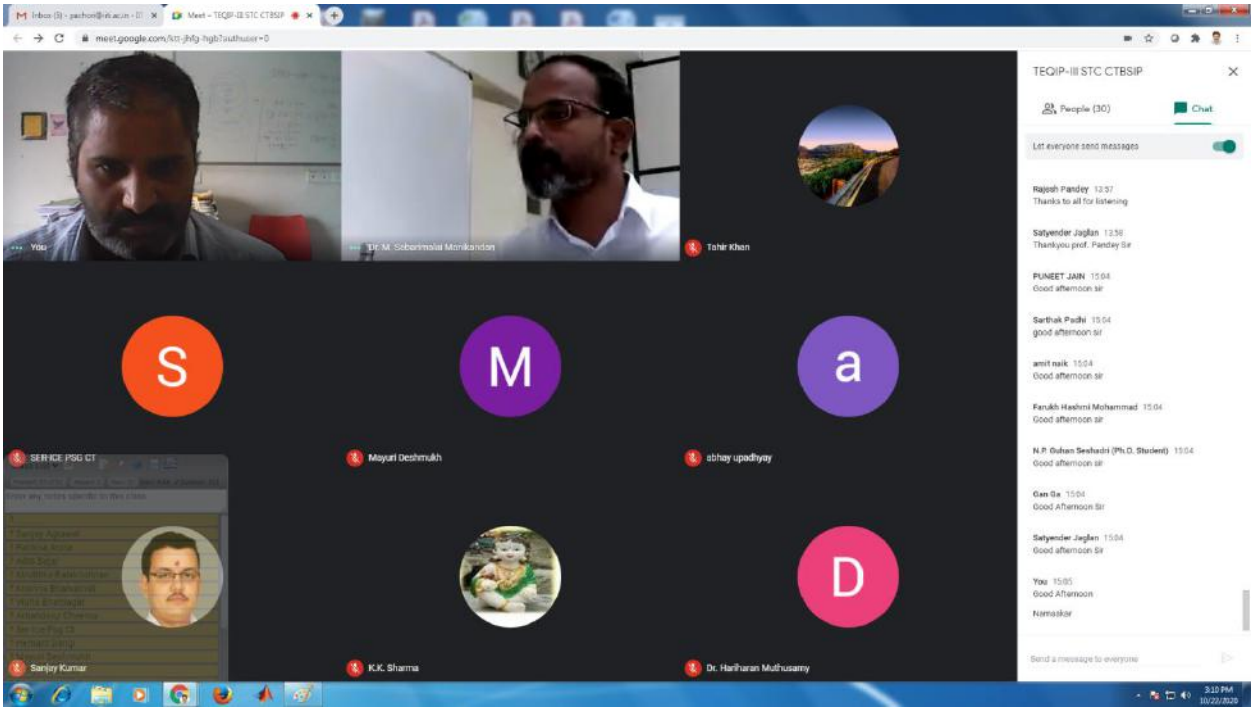
You | Rajesh Pandey | K.K. Sharma | SERICE PSG CT | Sanjay Kumar | PUNEET JAIN | Tahir Khan | Dilip Sharma | abhay upadhyay

1:48 PM 10/22/2020


Rajesh Pandey is presenting
Proposed filter
Table 1: The superposition of integral masks in all possible eight directions for q=0.
Rajesh K. Pandey (IIT (BHU)) Fractional Filters For Medical Image Processi 30 / 44
TEQIP-III STC CTBSIP
People (36)
Chat
Let everyone send messages
Narendra Mahawar 12:42
Narendra Mahawar, SATI Vidisha
Kiruthika Balakrishnan 12:49
Kiruthika Balakrishnan
N.P. Guhan Seshadri (Ph.D. Student) 12:53
N P Guhan Seshadri
K.K. Sharma 13:05
mean while can you show eqn 15 pls
Krishna Gopal 13:18
Krishna Gopal Kirar, SATI Vidisha
Dr. Atul Kumar Dwivedi 13:27
Dr. Atul Kumar Dwivedi , Bundelkhand Institute of Engineering and technology, Jhansi
Dr. Atul Kumar Dwivedi 13:28
voice is not coming
now ok
Sarthak Padhi 13:29
Sarthak Padhi, IIIT Bhubaneswar
Krishna Gopal 13:44
Very informative session. Thank you so much sir.
Farukh Hashmi Mohammad 13:48
Nice and excellent session. Thank you so much sir
Send a message to everyone
You
Rajesh Pandey
K.K. Sharma
SERICE PSG CT
Sanjay Kumar
PUNEET JAIN
Gan Ga
Dilip Sharma
abhay upadhyay
1:34 PM
10/22/2020


meet.google.com/kti-jhfy-hgb?authuser=0
TEQIP-III STC CTBSIP
People (30)
Chat
Let everyone send messages
Krishna Gopal 12:18
Krishna Gopal Kirar, SATI Vidisha
Dr. Atul Kumar Dwivedi 12:27
Dr. Atul Kumar Dwivedi , Bundelkhand Institute of Engineering and technology, Jhansi
Dr. Atul Kumar Dwivedi 12:28
voice is not coming
now ok
Sarthak Padhi 12:29
Sarthak Padhi, IIIT Bhubaneswar
Krishna Gopal 13:44
Very informative session. Thank you so much sir.
Farukh Hashmi Mohammad 13:48
Nice and excellent session. Thank you so much sir
K.K. Sharma 13:55
Thanks for the nice informative session
K.K. Sharma 13:57
It was really enlightening
Mayuri Deshmukh 13:57
thank u sir
Rajesh Pandey 13:57
Thanks to all for listening
Send a message to everyone
You
Rajesh Pandey
Tahir Khan
Dilip Sharma
SERICE PSG CT
abhay upadhyay
KRISHNA BHANUSHALI has left the meeting
Sanjay Kumar
K.K. Sharma
PUNEET JAIN
1:57 PM
10/22/2020


Dr. M. Sabarimalai Manikandan
Tahir Khan
Parikha Arora
abhay upadhyay
Present now
Let everyone send messages
Rajesh Pandey 13:57
Thanks to all for listening
Satyender Jaglan 13:58
Thankyou prof. Pandey Sir
PUNEET JAIN 15:04
Good afternoon sir
Sarthak Padhi 15:04
good afternoon sir
amit naik 15:04
Good afternoon sir
Farukh Hashmi Mohammad 15:04
Good afternoon sir
N.P. Guhan Seshadri (Ph.D. Student) 15:04
Good afternoon sir
Gan Ga 15:04
Good Afternoon Sir
Satyender Jaglan 15:04
Good afternoon Sir
You 15:05
Good Afternoon
Namaskar
Send a message to everyone


meet.google.com/kxt-jhfg-hgb?authuser=0
You
Dr. M. Sabarimalai Manikandan
Tahir Khan
Mayuri Deshmukh
abhay upadhyay
Sanjoy Kumar
K.K. Sharma
Dr. Hariharan Muthusamy
TEQIP-III STC CTBSIP
People (30)
Chat
Let everyone send messages
Rajesh Pandey 13:57
Thanks to all for listening
Satyender Jaglan 13:58
Thankyou prof. Pandey Sir
PUNEET JAIN 15:04
Good afternoon sir
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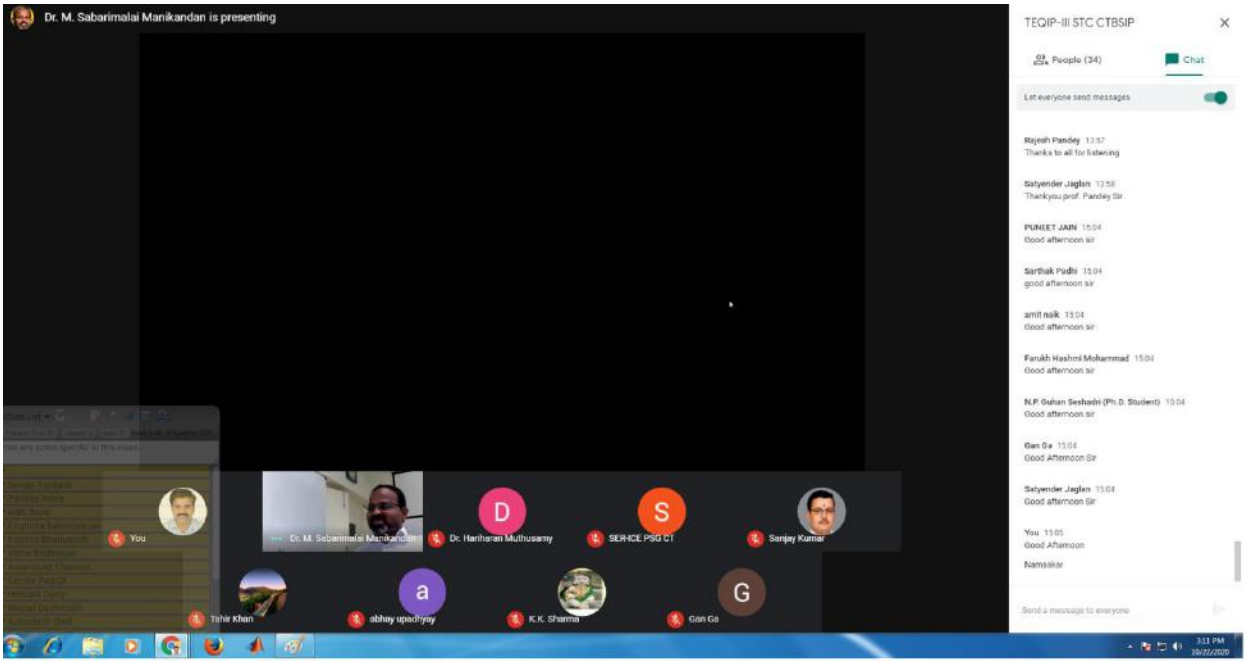
Satyender Jaglan 15:04
Good afternoon Sir
You 15:05
Good Afternoon
Namaskar
Send a message to everyone


Dr. M. Sabarimalai Manikandan is presenting
TEQIP-III STC CTBSIP
People (34)
Chat
Let everyone send messages
Rajesh Pandey 13:57
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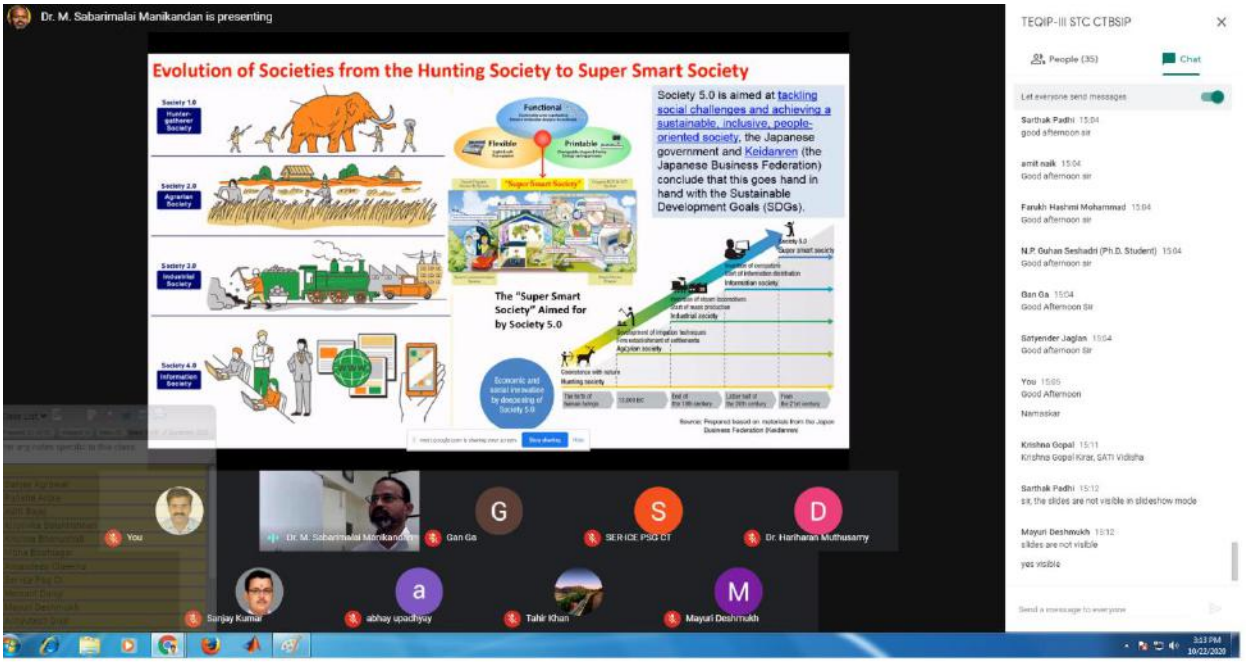
Send a message to everyone
You
Dr. M. Sabarimalai Manikandan
Dr. Hariharan Muthusamy
SERICE PSG CT
Sanjay Kumar
Tahir Khan
abhay upadhyay
K.K. Sharma
Gan Ga


Dr. M. Sabarimalai Manikandan is presenting
Evolution of Societies from the Hunting Society to Super Smart Society
Society 1.0
Hunter-gatherer Society
Society 2.0
Agrarian Society
Society 3.0
Industrial Society
Society 4.0
Information Society
Functional
Flexible
Printable
"Super Smart Society"
Society 5.0 is aimed at tackling social challenges and achieving a sustainable, inclusive, people-oriented society, the Japanese government and Keidanren (the Japanese Business Federation) conclude that this goes hand in hand with the Sustainable Development Goals (SDGs).
The "Super Smart Society" Aimed for by Society 5.0
Society 5.0
Super smart society
Information society
Industrial society
Agrarian society
Hunting society
Economic and social innovation by descending of Society 5.0
Source: Prepared based on materials from the Japan Business Federation (Keidanren)
TEQIP-III STC CTBSIP
People (35)
Chat
Let everyone send messages
Sarthak Padhi 15:04
good afternoon sir
amit naik 15:04
Good afternoon sir
Farukh Hashmi Mohammad 15:04
Good afternoon sir
N.P. Guhan Seshadri (Ph.D. Student) 15:04
Good afternoon sir
Gan Ga 15:04
Good Afternoon Sir
Satyender Jaglan 15:04
Good afternoon Sir
You 15:05
Good Afternoon
Namaskar
Krishna Gopal 15:11
Krishna Gopal Kirar, SATI Vidisha
Sarthak Padhi 15:12
sir, the slides are not visible in slideshow mode
Mayuri Deshmukh 15:12
slides are not visible
yes visible
Send a message to everyone
You
Dr. M. Sabarimalai Manikandan
Gan Ga
SERICE PSG CT
Dr. Hariharan Muthusamy
Sanjay Kumar
abhay upadhyay
Tahir Khan
Mayuri Deshmukh


Dr. M. Sabarimalai Manikandan is presenting
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The "Super Smart Society" Aimed for by Society 5.0
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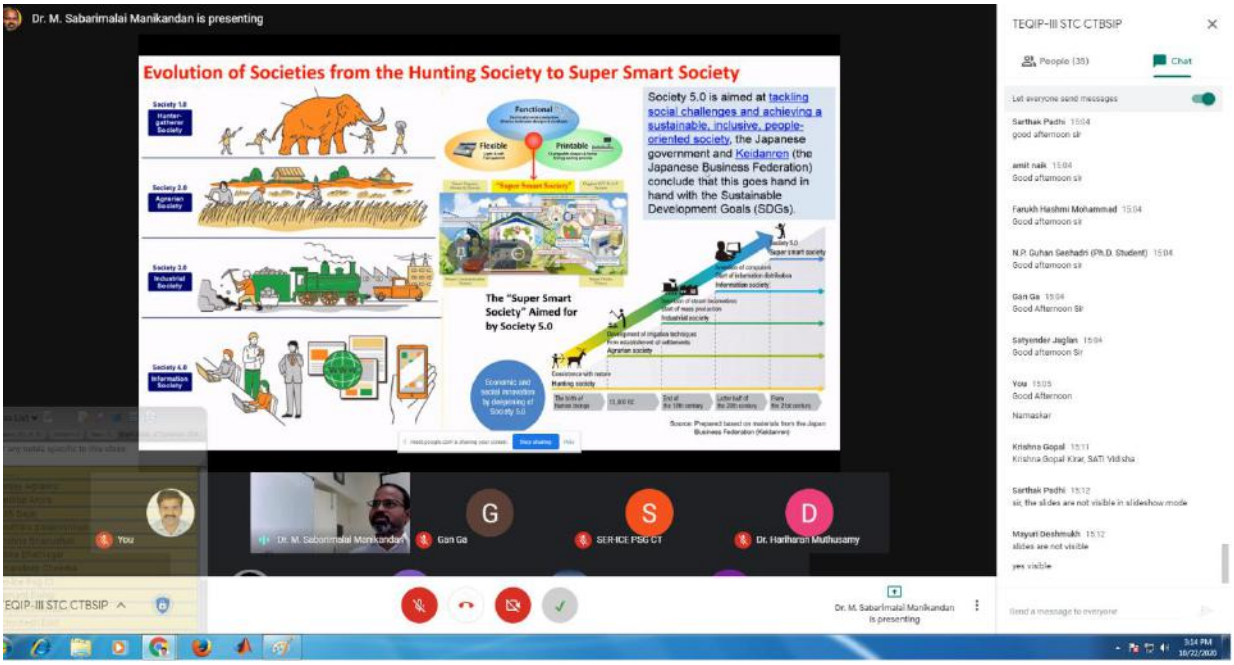
Gan Ga
SERICE PSG CT
Dr. Hariharan Muthusamy
TEQIP-III STC CTBSIP
Dr. M. Sabarimalai Manikandan is presenting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The "Super Smart Society" Aimed for by Society 5.0
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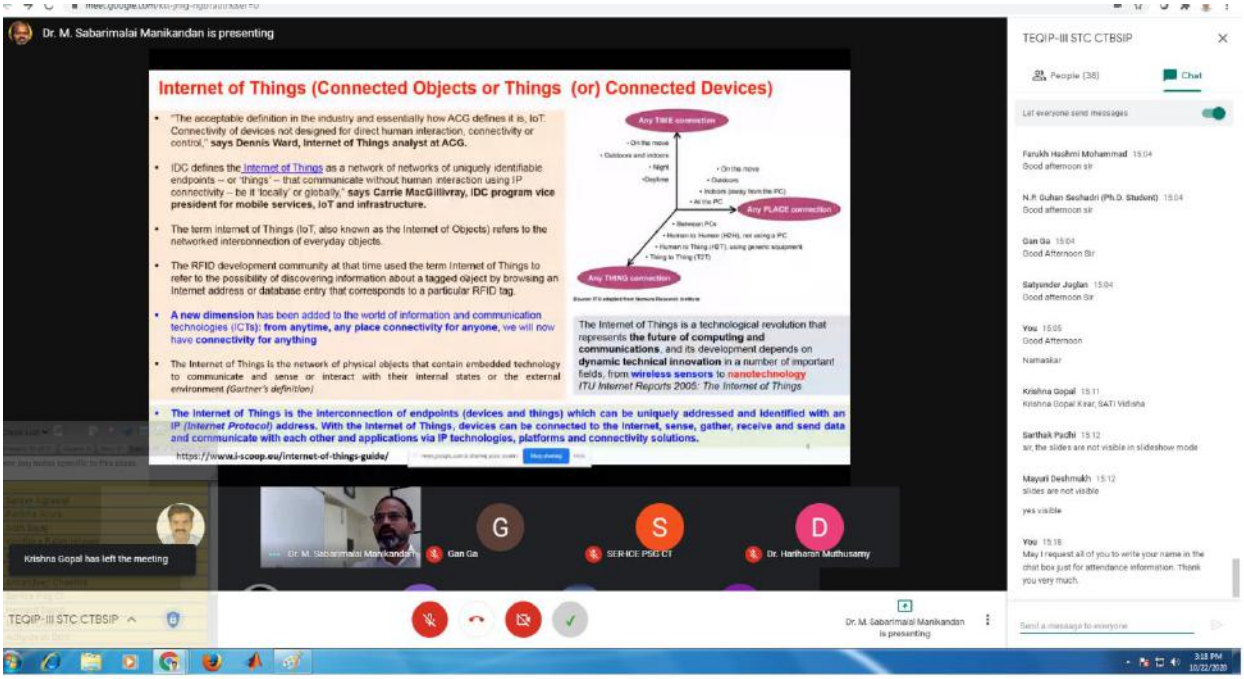
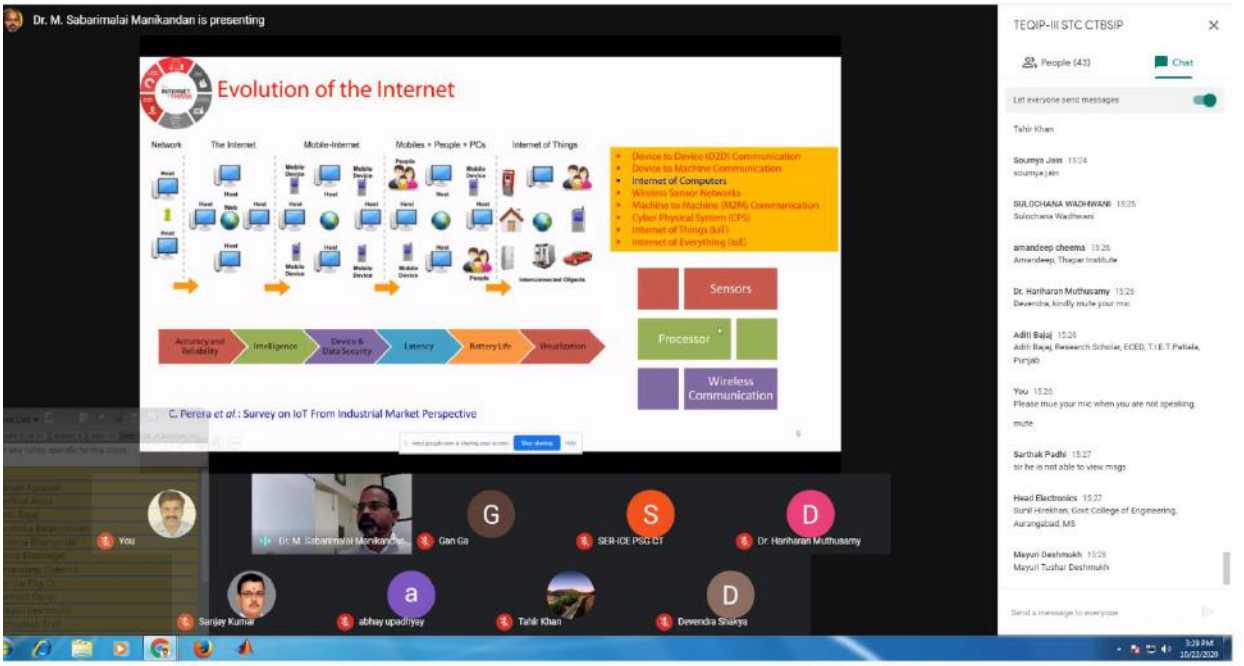
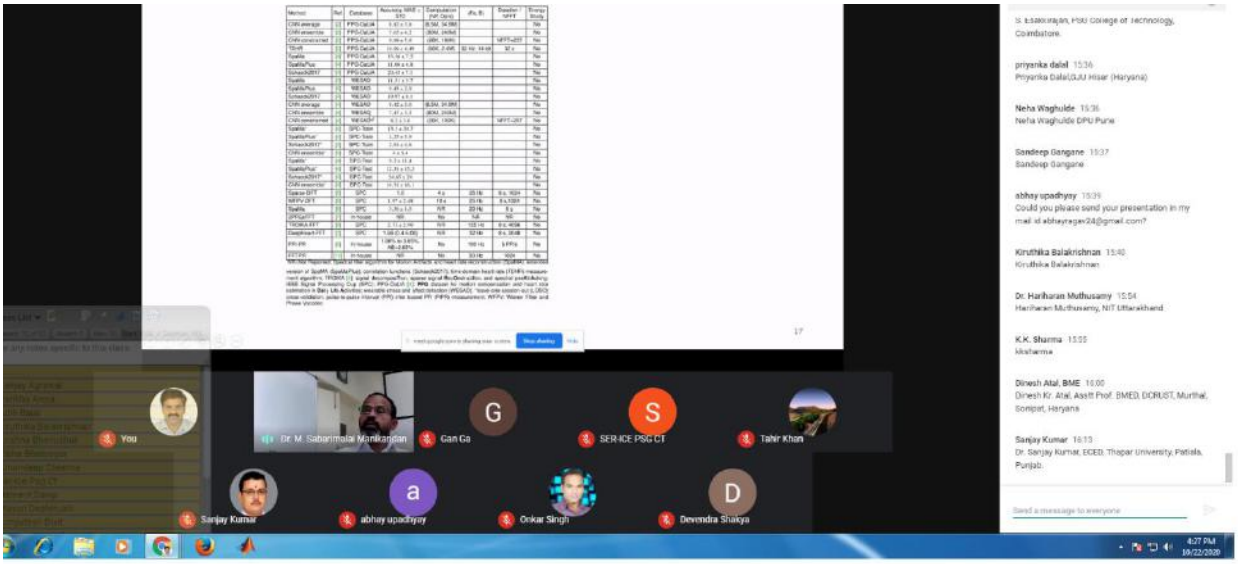
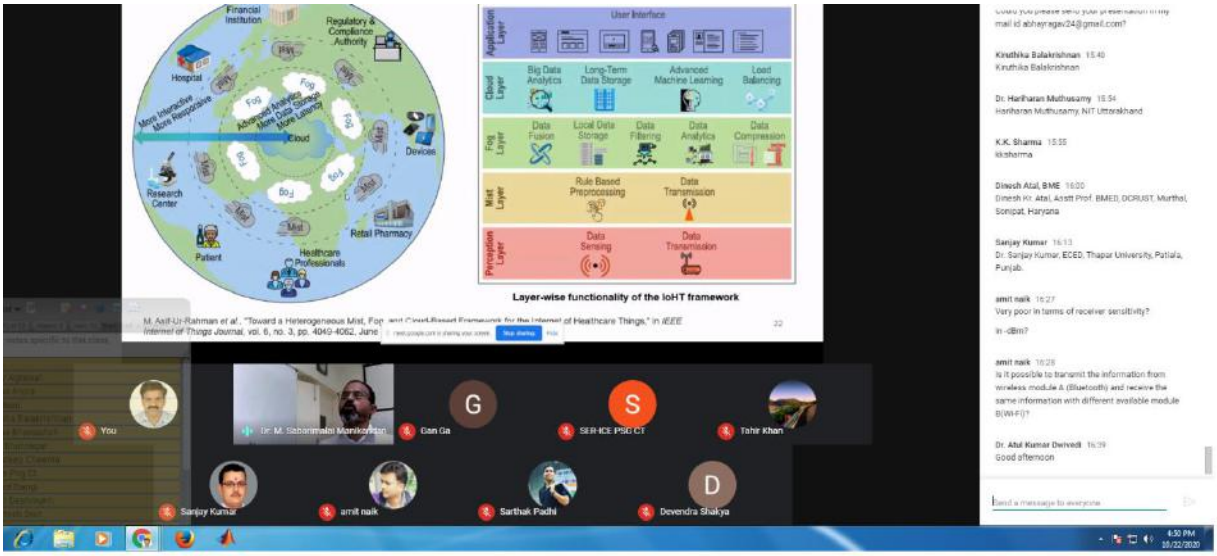
Dr. M. Sabarimalai Manikandan
Gan Ga
SERICE PSG CT
Dr. Hariharan Muthusamy
TEQIP-III STC CTBSIP
Dr. M. Sabarimalai Manikandan is presenting

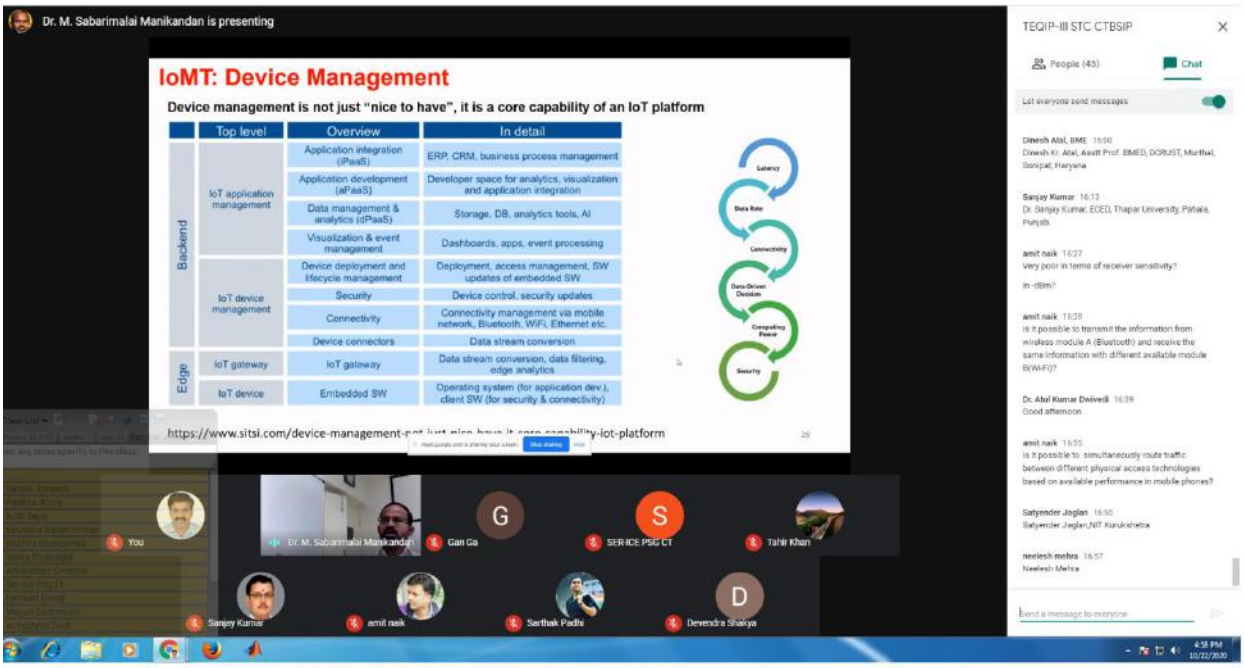

Dr. M. Sabarimalai Manikandan is presenting
Internet of Things (Connected Objects or Things (or) Connected Devices)
"The acceptable definition in the industry and essentially how ACG defines it is, IoT: Connectivity of devices not designed for direct human interaction, connectivity or control," says Dennis Ward, Internet of Things analyst at ACG.
IDC defines the Internet of Things as a network of networks of uniquely identifiable endpoints -- or 'things' -- that communicate without human interaction using IP connectivity -- be it 'locally' or globally," says Carrie MacGillivray, IDC program vice president for mobile services, IoT and infrastructure.
The term Internet of Things (IoT, also known as the Internet of Objects) refers to the networked interconnection of everyday objects.
The RFID development community at that time used the term Internet of Things to refer to the possibility of discovering information about a tagged object by browsing an Internet address or database entry that corresponds to a particular RFID tag.
A new dimension has been added to the world of information and communication technologies (ICTs): from anytime, any place connectivity for anyone, we will now have connectivity for anything
The Internet of Things is the network of physical objects that contain embedded technology to communicate and sense or interact with their internal states or the external environment (Gartner's definition)
The Internet of Things is the interconnection of endpoints (devices and things) which can be uniquely addressed and identified with an IP (Internet Protocol) address. With the Internet of Things, devices can be connected to the Internet, sense, gather, receive and send data and communicate with each other and applications via IP technologies, platforms and connectivity solutions.
https://www.i-scoop.eu/internet-of-things-guide/
Any TIME connection
Any PLACE connection
Any THING connection
The Internet of Things is a technological revolution that represents the future of computing and communications, and its development depends on dynamic technical innovation in a number of important fields, from wireless sensors to nanotechnology
ITU Internet Reports 2005: The Internet of Things
Krishna Gopal has left the meeting
Dr. M. Sabarimalai Manikandan
Gan Ga
SER-ICE PSG CT
Dr. Hariharan Muthusamy
TEQIP-III STC CTBSIP
Dr. M. Sabarimalai Manikandan is presenting
TEQIP-III STC CTBSIP
People (38)
Chat
Let everyone send messages
Farukh Hashmi Mohammad 15:04
Good afternoon sir
N.P. Guhan Seshadri (Ph.D. Student) 15:04
Good afternoon sir
Gan Ga 15:04
Good Afternoon Sir
Satyender Juglan 15:04
Good afternoon Sir
You 15:05
Good Afternoon
Namaskar
Krishna Gopal 15:11
Krishna Gopal Kirar, SATI Vidisha
Sarthak Padhi 15:12
sir, the slides are not visible in slideshow mode
Mayuri Deshmukh 15:12
slides are not visible
yes visible
You 15:18
May I request all of you to write your name in the chat box just for attendance information. Thank you very much.
Send a message to everyone
3:18 PM
10/22/2020


Dr. M. Sabarimalai Manikandan is presenting
Evolution of the Internet
Network
The Internet
Mobile-Internet
Mobiles + People + PCs
Internet of Things
Device to Device (D2D) Communication
Device to Machine Communication
Internet of Computers
Wireless Sensor Networks
Machine to Machine (M2M) Communication
Cyber Physical System (CPS)
Internet of Things (IoT)
Internet of Everything (IoE)
Accuracy and Reliability
Intelligence
Device & Data Security
Latency
Battery Life
Visualization
Sensors
Processor
Wireless Communication
C. Perera et al.: Survey on IoT From Industrial Market Perspective
You
Dr. M. Sabarimalai Manikandan
Gan Ga
SER-ICE PSG CT
Dr. Hariharan Muthusamy
Sanjay Kumar
abhay upadhyay
Tahir Khan
Devendra Shakya
TEQIP-III STC CTBSIP
People (43)
Chat
Let everyone send messages
Tahir Khan
Soumya Jain 15:24
soumya j ain
SULOCHANA WADHWANI 15:25
Sulochana Wadhwani
amandeep cheema 15:26
Amandeep, Thapar Institute
Dr. Hariharan Muthusamy 15:26
Devendra, kindly mute your mic
Aditi Bajaj 15:26
Aditi Bajaj, Research Scholar, ECED, T.I.E.T Patiala, Punjab
You 15:26
Please mute your mic when you are not speaking.
mute
Sarthak Padhi 15:27
sir he is not able to view msgs
Head Electronics 15:27
Sunil Hirekhan, Govt College of Engineering, Aurangabad, MS
Mayuri Deshmukh 15:28
Mayuri Tushar Deshmukh
Send a message to everyone
3:29 PM
10/22/2020


Dr. M. Sabarimalai Manikandan is presenting
Use Cases of IoMT / IoHT / m-IoT
Technologies Fueling 4IR in IEEE Xplore
Connected Devices and Systems
Subject-to-Home (Sub2Hom)
Home-to-Hospital (Hom2Hos)
Ambulance-to-Hospital (Amb2Hos)
Hospital-to-Hospital (Hos2Hos)
Hospital-to-Ambulance (Hos2Amb)
Subject-to-Caregiver (Sub2Car)
Diagnostics Lab-to-Hospital (Dia2Hos)
TEQIP-III STC CTBSIP
People (44)
Chat
You
Dr. M. Sabarimalai Manikandan
Gan Ga
SER-ICE PSG CT
Tahir Khan
Dr. M. Sabarimalai Manikandan is presenting


You
Dr. M. Sabarimalai Manikandan
Gan Ga
SER-ICE PSG CT
Tahir Khan
Sanjay Kumar
abhay upadhyay
Onkar Singh
Devendra Shakya


Financial Institution
Regulatory & Compliance Authority
Hospital
Cloud
Devices
Research Center
Retail Pharmacy
Patient
Healthcare Professionals
Application Layer
User Interface
Cloud Layer
Big Data Analytics
Long-Term Data Storage
Advanced Machine Learning
Load Balancing
Fog Layer
Data Fusion
Local Data Storage
Data Filtering
Data Analytics
Data Compression
Mist Layer
Rule Based Preprocessing
Data Transmission
Perception Layer
Data Sensing
Data Transmission
Layer-wise functionality of the IoHT framework
M. Asif-Ur-Rahman et al., "Toward a Heterogeneous Mist, Fog, and CloudBased Framework for the Internet of Healthcare Things," in IEEE Internet of Things Journal, vol. 6, no. 3, pp. 4049-4062, June
You
Dr. M. Sabarimalai Manikandan
Gan Ga
SERICE PSG CT
Tahir Khan
Sanjay Kumar
amit naik
Sarthak Padhi
Devendra Shakya
Could you please send your presentation in my mail id abhayragav24@gmail.com?
Kiruthika Balakrishnan 15:40
Kiruthika Balakrishnan
Dr. Hariharan Muthusamy 15:54
Hariharan Muthusamy, NIT Uttarakhand
K.K. Sharma 15:55
kksharma
Dinesh Atal, BME 16:00
Dinesh Kr. Atal, Asstt Prof. BMED, DCRUST, Murthal, Sonipat, Haryana
Sanjay Kumar 16:13
Dr. Sanjay Kumar, ECED, Thapar University, Patiala, Punjab.
amit naik 16:27
Very poor in terms of receiver sensitivity?
in -dBm?
amit naik 16:28
is it possible to transmit the information from wireless module A (Bluetooth) and receive the same information with different available module B(Wi-Fi)?
Dr. Atul Kumar Dwivedi 16:39
Good afternoon
Send a message to everyone
4:50 PM
10/22/2020


Dr. M. Sabarimalai Manikandan is presenting
IoMT: Device Management
Device management is not just "nice to have", it is a core capability of an IoT platform
Top level
Overview
In detail
Backend
IoT application management
Application integration (iPaaS)
ERP, CRM, business process management
Application development (aPaaS)
Developer space for analytics, visualization and application integration
Data management & analytics (dPaaS)
Storage, DB, analytics tools, AI
Visualization & event management
Dashboards, apps, event processing
IoT device management
Device deployment and lifecycle management
Deployment, access management, SW updates of embedded SW
Security
Device control, security updates
Connectivity
Connectivity management via mobile network, Bluetooth, WiFi, Ethernet etc.
Device connectors
Data stream conversion
Edge
IoT gateway
IoT gateway
Data stream conversion, data filtering, edge analytics
IoT device
Embedded SW
Operating system (for application dev.), client SW (for security & connectivity)
Latency
Data Rate
Connectivity
Data-Driven Decision
Computing Power
Security
https://www.sitsi.com/device-management-not-just-nice-have-it-core-capability-iot-platform
TEQIP-III STC CTBSIP
People (45)
Chat
Let everyone send messages
Dinesh Atal, BME 16:00
Dinesh Kr. Atal, Asstt Prof. BMED, DCRUST, Murthal, Sonipat, Haryana
Sanjay Kumar 16:13
Dr. Sanjay Kumar, ECED, Thapar University, Patiala, Punjab.
amit naik 16:27
Very poor in terms of receiver sensitivity?
in -dBm?
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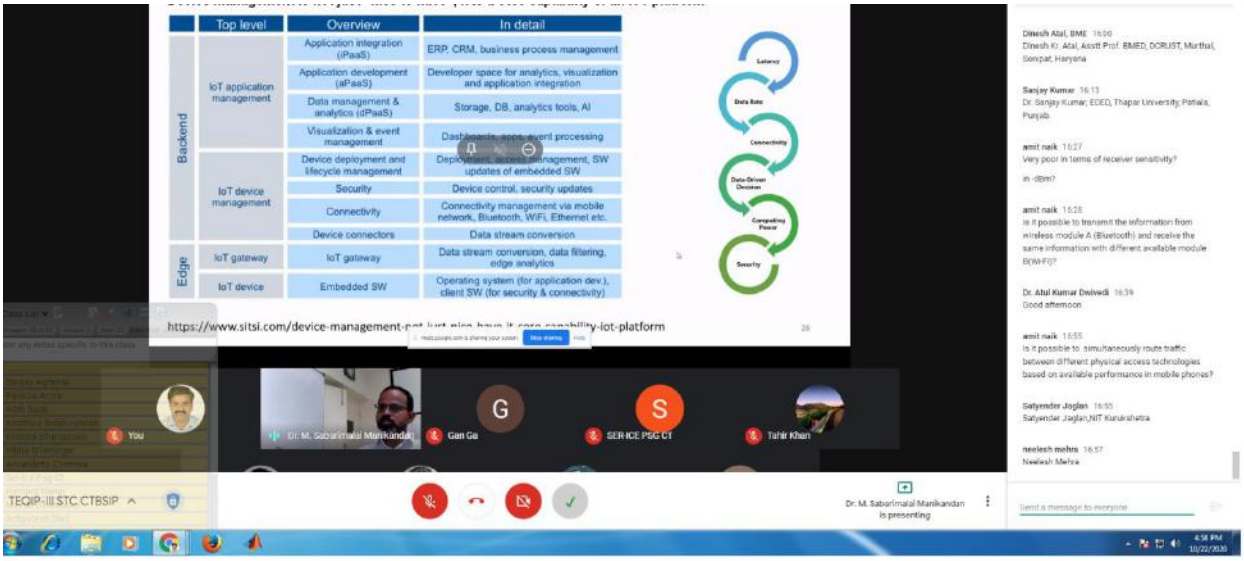
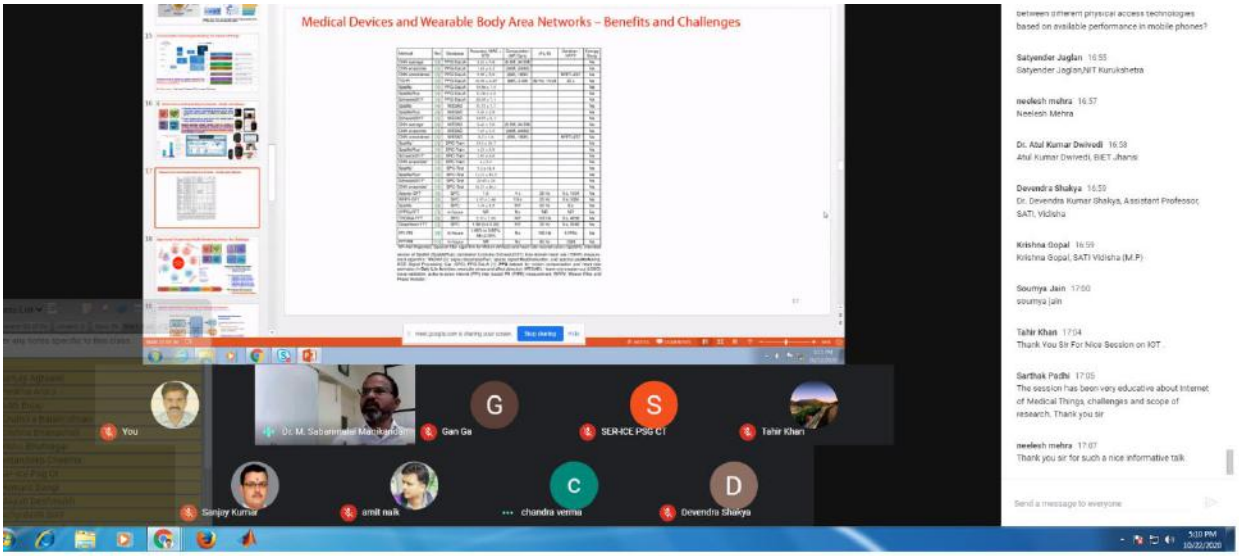
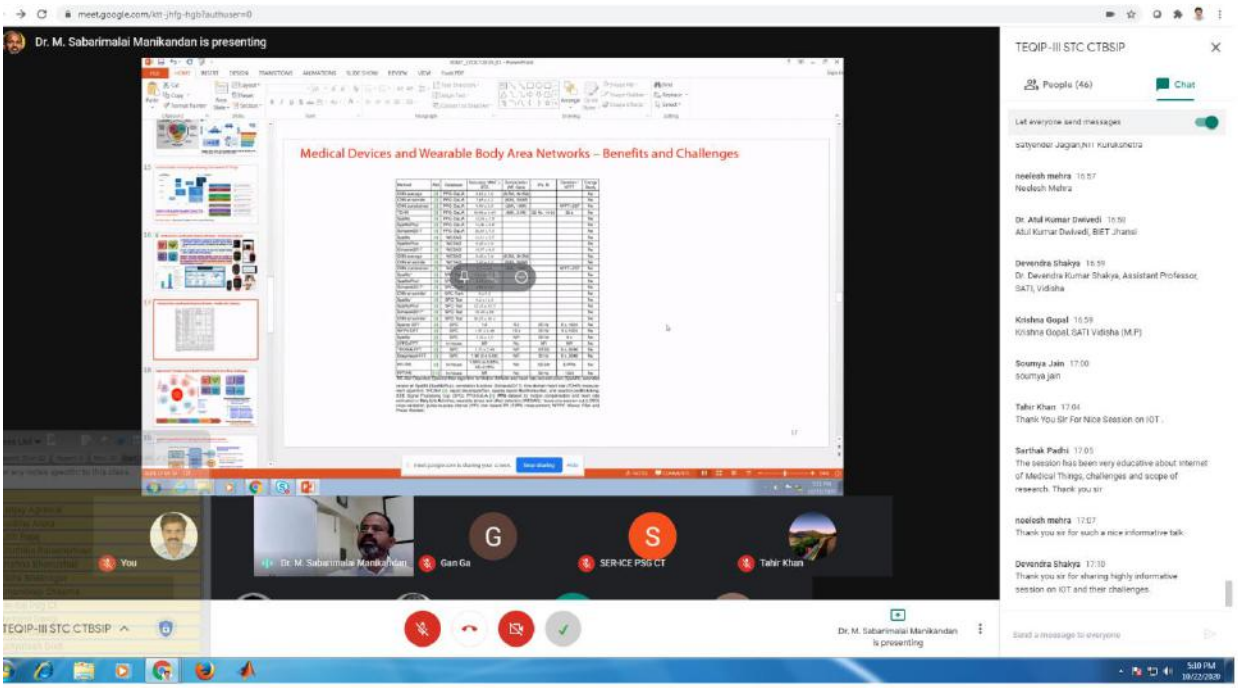
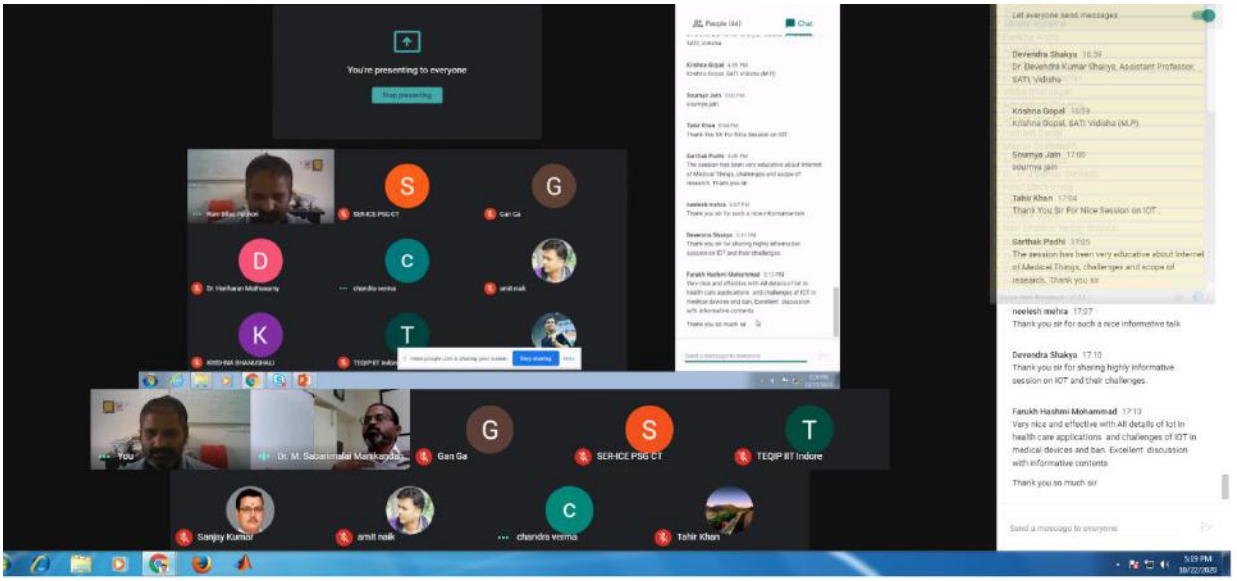
is it possible to transmit the information from wireless module A (Bluetooth) and receive the same information with different available module B(Wi-Fi)?
Dr. Atul Kumar Dwivedi 16:39
Good afternoon
amit naik 16:55
is it possible to simultaneously route traffic between different physical access technologies based on available performance in mobile phones?
Satyender Jaglan 16:56
Satyender Jaglan,NIT Kurukshetra
neelesh mehra 16:57
Neelesh Mehra
Send a message to everyone
4:58 PM
10/22/2020


Top level
Overview
In detail
Backend
Edge
IoT application management
Application integration (iPaaS)
ERP, CRM, business process management
Application development (aPaaS)
Developer space for analytics, visualization and application integration
Data management & analytics (dPaaS)
Storage, DB, analytics tools, AI
Visualization & event management
Dashboards, apps, event processing
IoT device management
Device deployment and lifecycle management
Deployment, access management, SW updates of embedded SW
Security
Device control, security updates
Connectivity
Connectivity management via mobile network, Bluetooth, WiFi, Ethernet etc.
Device connectors
Data stream conversion
IoT gateway
IoT gateway
Data stream conversion, data filtering, edge analytics
IoT device
Embedded SW
Operating system (for application dev.), client SW (for security & connectivity)
https://www.sitsi.com/device-management-not-just-nice-have-it-core-capability-iot-platform
Dinesh Atal, BME 16:00
Dinesh Kr. Atal, Asstt Prof. BMED, DCRUST, Murthal, Sonipat, Haryana
Sanjay Kumar 16:13
Dr. Sanjay Kumar, EDED, Thapar University, Patiala, Punjab.
amit naik 16:27
Very poor in terms of receiver sensitivity?
in -dBm?
amit naik 16:28
is it possible to transmit the information from wireless module A (Bluetooth) and receive the same information with different available module B(Wi-Fi)?
Dr. Atul Kumar Dwivedi 16:39
Good afternoon
amit naik 16:55
Is it possible to simultaneously route traffic between different physical access technologies based on available performance in mobile phones?
Satyender Joglan 16:55
Satyender Joglan,NIT Kurukshetra
neelesh mehra 16:57
Neelesh Mehra
You
Dr. M. Sabarimalai Manikandan
Gan Ga
SERICE PSG CT
Tahir Khan
TEQIP-III STC CTBSIP
Dr. M. Sabarimalai Manikandan is presenting
Send a message to everyone


Medical Devices and Wearable Body Area Networks – Benefits and Challenges
between different physical access technologies based on available performance in mobile phones?
Satyender Joglan 16:55
Satyender Joglan,NIT Kurukshetra
neelesh mehra 16:57
Neelesh Mehra
Dr. Atul Kumar Dwivedi 16:58
Atul Kumar Dwivedi, BIET Jhansi
Devendra Shakya 16:59
Dr. Devendra Kumar Shakya, Assistant Professor, SATI, Vidisha
Krishna Gopal 16:59
Krishna Gopal, SATI Vidisha (M.P)
Soumya Jain 17:00
soumya jain
Tahir Khan 17:04
Thank You Sir For Nice Session on IOT .
Sarthak Padhi 17:05
The session has been very educative about Internet of Medical Things, challenges and scope of research. Thank you sir
neelesh mehra 17:07
Thank you sir for such a nice informative talk
You
Dr. M. Sabarimalai Manikandan
Gan Ga
SERICE PSG CT
Tahir Khan
Sanjay Kumar
amit naik
chandra verma
Devendra Shakya
Send a message to everyone


Dr. M. Sabarimalai Manikandan is presenting
Medical Devices and Wearable Body Area Networks – Benefits and Challenges
TEQIP-III STC CTBSIP
People (46)
Chat
Let everyone send messages
neelesh mehra 16:57
Neelesh Mehra
Dr. Atul Kumar Dwivedi 16:58
Atul Kumar Dwivedi, BIET Jhansi
Devendra Shakya 16:59
Dr. Devendra Kumar Shakya, Assistant Professor, SATI, Vidisha
Krishna Gopal 16:59
Krishna Gopal, SATI Vidisha (M.P)
Soumya Jain 17:00
soumya jain
Tahir Khan 17:04
Thank You Sir For Nice Session on IOT .
Sarthak Padhi 17:05
The session has been very educative about internet of Medical Things, challenges and scope of research. Thank you sir
neelesh mehra 17:07
Thank you sir for such a nice informative talk
Devendra Shakya 17:10
Thank you sir for sharing highly informative session on IOT and their challenges.
You
Dr. M. Sabarimalai Manikandan
Gan Ga
SER-ICE PSG CT
Tahir Khan
Dr. M. Sabarimalai Manikandan is presenting
Send a message to everyone
5:10 PM
10/22/2020


You're presenting to everyone
Stop presenting
People (44)
Chat
Let everyone send messages
Devendra Shakya 16:59
Dr. Devendra Kumar Shakya, Assistant Professor, SATI, Vidisha
Krishna Gopal 16:59
Krishna Gopal, SATI Vidisha (M.P)
Soumya Jain 17:00
soumya jain
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Thank You Sir For Nice Session on IOT .
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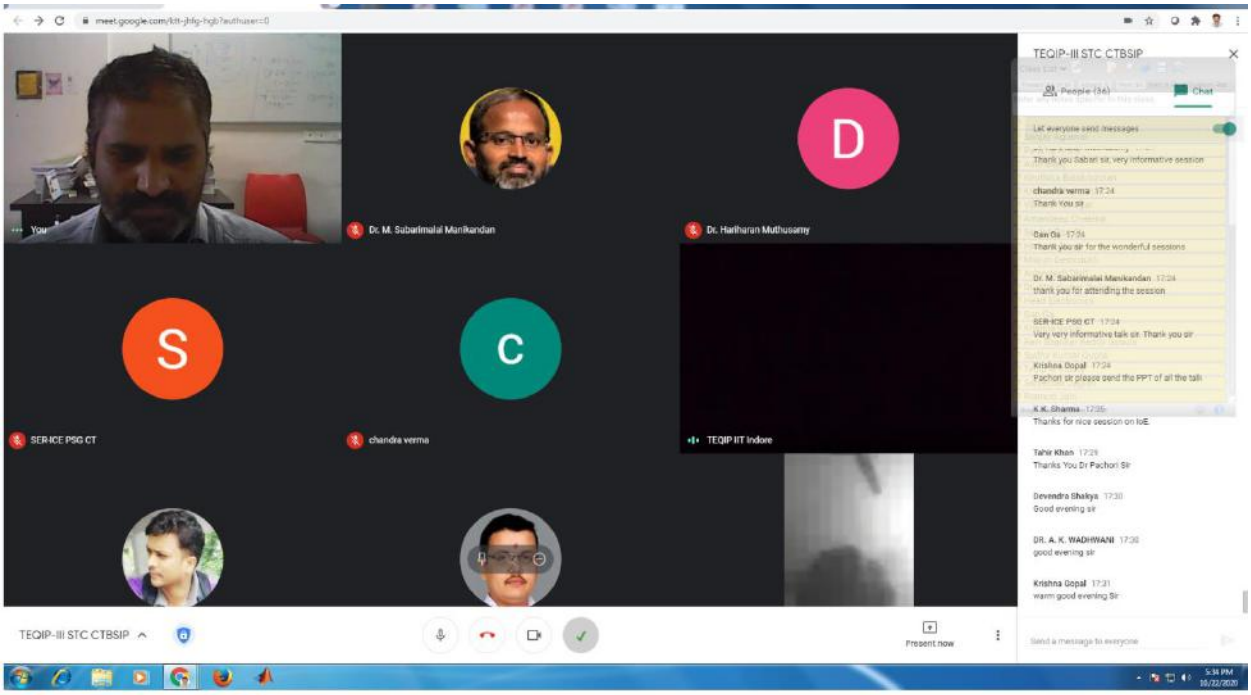
neelesh mehra 17:07
Thank you sir for such a nice informative talk
Devendra Shakya 17:10
Thank you sir for sharing highly informative session on IOT and their challenges.
Farukh Hashmi Mohammad 17:13
Very nice and effective with All details of Iot In health care applications and challenges of IOT in medical devices and ban. Excellent discussion with informative contents
Thank you so much sir
Send a message to everyone
You
Dr. M. Sabarimalai Manikandan
Gan Ga
SER-ICE PSG CT
TEQIP IIT Indore
Sanjay Kumar
amit naik
chandra verma
Tahir Khan
5:19 PM
10/22/2020



4. Survey of the participants:

In the beginning of the course, the participants were asked about the expectations from this course, motivation and reasons for attending this course. Most of the participants expressed that they want to learn about ongoing research activities in the area of biomedical signal and image processing. Many of them are working in the area of biomedical signal processing and looking for new research problems in the area of biomedical signal processing. Some participants expressed their views during inaugural session in the chat box which are as follows:

SER-ICE PSG CT
09:30
Motivation: To learn the application of signal processing in biomedical field.
Neha Waghulde
09:34
Good morning Sir. Myself Neha Waghulde Instrumentation Engineering student from Dr. D. Y. Patil Pimpri Pune. The motive for me attending this course is to learn what exactly consists in Biomedical then its fundamentals and its applications. Thankyou for organizing this course.
KRISHNA BHANUSHALI
09:35
Motivation: Exploring biomedical signal and image processing
Sarthak Padhi
09:36
Good morning Sir. I am Sarthak Padhi, PhD Scholar under Dr Suvendu Rup, IIIT Bhubaneswar. My research domain is medical image analysis, specially of brain images, and hence my motivation of joining

this course is to gain more insights on the processes, techniques and approaches towards medical signal and image processing. Thank you for organizing this course.
Nidhish Antony
09:37
Motivation: To learn about challenges in Internet of Medical things and biomedical signal processing
vibha bhatnagar
09:38
Motive for joining this course is that my research area is in field of biomedical image processing,I am especially interested in deep learning lectures,thanks
Mr. Sanjay Agrawal
09:38
I am Sanjay Agrawal, Associate Professor in VSSUT, Burla Odisha. My research interest includes image processing. We are also working in biomedical image processing. This course on current trends will open more problems in the field of biomedical image processing.
Abhishek
09:38
Good morning sir. I thanks for conducting STC. I Dr. Abhishek K. Sah working as Assistant Professor in Pharmacy SGSITS INDORE. I have been awarded Serb National Postdoctoral Fellows at IITBHU in 2018. PhD from Raipur University and UG PG from GGDU Bilaspur. Thanks sir
Satyender Jaglan
09:38
Motivation: To learn various Technique for epilepsy detection using EEG signal
neelesh mehra
09:38
Good morning sir, Myself Neelesh Mehra from SATI vidisha, I join this course for learning image procesing technique especially in biomedical image analysis and enhancement
Kiruthika Balakrishnan
09:38
Good morning Sir,
Mayuri Deshmukh
09:39
Good morning sir
arun rayakwar
09:40
Good morning sir, I am Arun Rayakwar working as assistant professor at SGSITS Indore. Biomedical signal processing is always motivated me in my PG I did work on EEG . I hope this course help me to understand new possibilities and update in biomedical fields. Thanks
Soumya Jain
09:40
good morning sir . I am soumya jain , working as JRF under prof. Bikesh kumar Singh in NIT Raipur. My Research area is Biomedical signal processing and i hope this workshop will be useful to learn more about different new techniques in this research area.
Farukh Hashmi Mohammad
09:41

I want revise my fundamentals of Biomedical signal processing. Motive of this fdp is to learn ECG, EEG signal processing and various transforms level activity in Biomedical signal processing. I want to learn and emphasize more about deep learning and health care applications with IOT platform. I am very happy for attending this nice platform to learn the more topics of research areas in Biomedical signal processing. Heartily congratulate to Prof. Pachori sir, TEQIP III Indore. Thanks sir.
N.P. Guhan Seshadri (Ph.D. Student)
09:41
Good morning. This is Guhan Seshadri from NIT Raipur. since i'm working on EEG processing and classification, I hope this short term course would largely help me on learning signal feature extraction methods and classification techniques.
Krishna Gopal
09:44
The motivation behind attending this STC is to explore classification techniques for automated diagnosis of disorders in EEG and ECG signals.
Kiruthika Balakrishnan
09:44
Good morning Sir,I am kiruthika from Tamil Nadu doing research in ECG signal processing .I join this course for learning Time- frequency analysis techniques, feature extraction methods and classification of Biomedical signals.
.....
09:44
Good Morning . I'm pursuing PhD at IIITDM Kancheepuram. My area of research is related to EMG signal processing and classification. I hope this short term course will be useful for my research.
Sanjay Kumar
09:47
Greetings Prof. R.B. Pachori !! Myself Dr. Sanjay Kumar (Associate Prof., ECED) at Thapar University, Patiala, Punjab. Through this workshop, I am looking for what's new and novel signal/image processing techniques are required in time-frequency processing of biomedical signals. Also, looking for good collaboration of research projects with IIT-Indore.
Devendra Shakya
10:07
Good morning sir, My self Dr. Devendra Kumar Shakya , Assistant Professor, Samrat Ashok Technological Institute , Vidisha. First I want to congratulate to you organized such a wonderful workshop and recent update. Motivation to join this workshop is to update ourself the recent trends of biosignal analysis and detection

The participants were asked for providing feedbacks related to this short term course during valedictory session of this short term course. All participants appreciated the contents of the course, quality of speakers, presented material and they found it very useful for their research work. Some participants also mentioned their feedback in the chat box during valedictory function which are as follows:

Gan Ga
17:36

Excellent Sessions
K.K. Sharma
17:36
Good evening sir. Congratulations for wonderful FDP.
Hemant Kumar Meena
17:37
Very interactive sessions for signal processing, Sir
Soumya Jain
17:37
very good sessions
Dilip Sharma
17:37
Congratulations to pachori sirji
SER-ICE PSG CT
17:37
Feedback::(i) Well organized course (ii) Eminent speakers (iii) Interactive participants. Thank you very much sir.
amit naik
17:37
Excellent Sessions sir . Thank you sir for very informative FDP. Amit Naik .SGSITS Indore . 9685697174
Nidhish Antony
17:38
All the sessions were very good. I wish to appreciate all the organizers especially Dr. Pachori sir....
Nidhish Antony DUIET Assam
Sarthak Padhi
17:38
Prof. Pachori sir, thank you very much for organizing such an educative and informative short term course on biomedical signal and image processing. I have learned a lot of new concepts and I believe these will be helpful for my research in the same fields. Thanks again.
Neha Waghulde
17:38
The whole course was very informative and very wonderful. Thankyou sir this course will definitely help us in the future.
arun rayakwar
17:38
Excellent and very informative session. Almost all topics covered by eminent speakers. Thanks
SULOCHANA WADHWANI
17:38
All the sessions are very detailed and informative. Very well conducted. Thank you sir.
Krishna Gopal
17:39
In this pandemic , sir you provide such great learning opportunity to us, we gain state of the art signal processing techniques which will definitely enhanced our knowledge. looking forward for more STC in future also. Thank you so much sir.
PUNEET JAIN

17:39
Sir, as expected the STC covered a lot of interesting talks with good insight. I would like to follow such kind of events in future also. One request is that in future events, implementation issues of the techniques presented in the talks can be discussed. In that case, it would be very handful to grasp the concept and use it.
Sanjay Agrawal
17:39
Sirji, Namaskar. The overall course was worth attending. I came to know lot of terms in the field of biomedical signals and processing. I even shared some open problems with my students during the course. Looking forward to more such courses in future. Thank You! Sanjay Agrawal, VSSUT, Burla, Odisha.
Dr. Hariharan Muthusamy
17:39
Well organized sessions, learned and high-quality speakers, all the sessions were very informative, thank you so much sir.
Sanjay Kumar
17:39
I am very delightful for the great technical knowledge shared selflessly with all the Workshop Participants from various Professors. Lot of hardwork and patience is reflected from your end. I pray for your long healthy research world.
Panchal Pawan
17:40
Dr Rohtash Dhiman here, very good FDP
Sanjay Kumar
17:40
Many THANKS from Dr. Sanjay Kumar, Associate Prof., ECED, Thapar University, Patiala, Punjab-India.
DR. A. K. WADHWANI
17:40
Nice & Valuable sessions. All the talks were very educative & informative with New Approaches. Congratulations sir.
neelesh mehra
17:40
Thank you sir for organizing such a nice program all the session were very informative and interactive. All the session were not only research oriented and also explain basic concepts
Ravi Shankar reddy gosula
17:41
Learn Many things from the workshop
Devendra Shakya
17:41
It is very informative workshop for researchers. Lot of topic cover from basic to high level. Thank you sir
Kiruthika Balakrishnan
17:41
Very good informative session.Thank you very much for organising such a wonderful session.Looking forward to attend more like this Sir.Once again Thank you Sir

N.P. Guhan Seshadri (Ph.D. Student)
17:41
It was great lecture series. I thank the course organizer and all the speakers who delivered excellent information on current trending methods in biomedical signal processing. It was very helpful for me. Thanks again
Pramod Jain
17:42
Excellent and highly informative. Thanks to Dr. Pachori and his organising team for such a nicely managed course.
DR. A. K. WADHWANI
17:43
Very well organized..
K.K. Sharma
17:45
All the sessions were very scholarly. Many inputs were provided on the latest trends in research on signal processing. Examples were quoted very nicely, complemented with nice anecdotes and philosophical thinking. Sessions involved the audience interactively. All the queries were entertained and answered with appropriate detail.
Head Electronics
17:48
Very Nice sessions, informative and explanatory. Thanks to Dr. Pachori Sir for organizing such a wonderful program.
amandeep cheema
17:49
It was a very informative short-term course and have helped the biomedical researchers. The existing trends in biomedical research were highlighted and the expertise provided the vision for further research in the area.
Head Electronics
17:49
Sunil Hirekhan,Govt.College of Engineering, Aurangabad,MS
Thank You,Sir
Parikha Arora
17:51
Thankyou Prof Pachori sir for organizing such informative STC . This course will be very helpful and looking forward to attend such course .
Farukh Hashmi Mohammad
17:51
Congratulate to Professor Pachori sir . It was very informative and excellent fdp. In this fdp, all eminent speakers covered all topics related to recent trends and research topics of Biomedical signal processing. Thank you so much sir .
Farukh Hashmi Mohammad
17:52
This fdp will be very helpful to us.
Tahir Khan

17:54
Respected Dr Pachori SIr, We are waiting for Dr Deepak Ranjan Sir Session PPT on Deep Learning & Machine Learning. That was also one of the Good session with Other sessions. THanks in Advance.
Hemant Dangi
17:55
Thank you so much sir for organizing such a nice FDP.
Shyam Babu Singh
17:55
I would like extended my regard to Dr. Pachori Ji, I learn lot from your session. (Further, I also submit thank to Dr. A K Wadhwani, Professor, Dept of EE, MITS Gwalior- My supervisor, to give his submission in this feedback session) Regads SHYAM BABU, PhD Research Scholar, MITS Gwalior
N.P. Guhan Seshadri (Ph.D. Student)
18:00
Sure sir. Thank you very much
Satyender Jaglan
18:00
Thank you so much Sir for organizing such a great FDP.
amit naik
18:00
Thank you sir .amit naik . SGSITS INDORE.
Tahir Khan
18:00
Thanks you Dr Pachori SIr, Once Again for Perfectly organizing all three days session.
Gan Ga
18:00
Thank you sir
arun rayakwar
18:00
Thankyou sir
Satyender Jaglan
18:00
Regards to you Sir
You
18:00
Thank you very much to all of you. All the best for your bright future.
DR. A. K. WADHWANI
18:00
thank you sir .
Satyender Jaglan
18:01
Thank you Sir for your Blessings
Mayuri Deshmukh
18:04
thank you so much sir
Panchal Pawan

18:04
Thanks sir
Satyender Jaglan
18:04
Can we leave now Sir?
K.K. Sharma
18:08
Thanks sir.
Tahir Khan
18:09
Respected Dr Pachori SIr, We are waiting for Dr Deepak Ranjan Sir Session PPT on Deep Learning & Machine Learning. That was also one of the Good session with Other sessions. Thank you once again for organizing such a memorable learning sessions.

5. Links for conducting sessions:

Day 1: 20.10.2020: meet.google.com/wwu-omia-gkn

Day 2: 21.10.2020: meet.google.com/xjz-wuyh-opo

Day 3: 22.10.2020: meet.google.com/ktt-jhfg-hgb

SAMRAT ASHOK TECHNOLOGICAL INSTITUTE

(Engineering College)

(Established in 1960)

VIDISHA 464001 (M.P.)

Name : Krishna Gopal Kirar

Designation : Assistant Professor

Department : Elex. & Instrument. Engg.

Date of Joining : 25.08.2005

Employee ID : 22259

Signature

www.satiengg.org

DIRECTOR

NATIONAL INSTITUTE OF TECHNOLOGY

(Institution of National Importance)

Kurukshetra-136119

STAFF IDENTITY CARD

Name of Employee SATYENDER

Designation ASSISTANT PROFESSOR

Deptt./Sec. ELECTRONICS & COMM.

Sign. of Employee

By. Issuing Officer

Jabalpur Engineering College, Jabalpur (M.P.) - India
(Established in 1947 as Government Engineering College, Jabalpur- 482011)
(Declared Autonomous by Government of Madhya Pradesh, RGPV Bhopal and U.G.C., New Delhi)

Principal
Email: principal_jec_jabalpur@yahoo.co.in
Website: www.jecjabalpur.ac.in

Tel: +91 761 2331953 (O)
+91 761 2431355 (Fax)

Extension of Engagement

No/JECJ/TEQIP-III/2020/3778 Date: 30th September 2020

Subject: Extension of Engagement as Assistant Professor on Temporary basis for extended period until 31.03.2021.

I am pleased to inform you that, as advised and instructed by N.P.I.U., your engagement with the Institute is extended until 31.03.2021 due to extension of TEQIP III project till then.

Please note that this is merely an extension of the tenure from the current period unto the end of the project i.e. upto 31.03.2021 It is needless to point out that all the terms & conditions as mentioned in the Engagement letter dated 30/09/19 *(Date of last engagement letter: to be filled by the institute)* will be applicable to the extended period as well.

You are, however, required to execute fresh Undertaking (Service Agreement) for the extended period as well as other compliance documents afresh.

To *(Name & Designation of Concerned Faculty)*

Shiwangi Mishra
Asst. professor
Computer Science & Engg
Department

(Principal/ Director)

Name: Dr. A.K. Sharma
Seal of the institute:

Jabalpur Engineering College TEQIP-III Jabalpur

Copy submitted to: National Project Implementation Unit, Jasola Vihar, New Delhi

Madhav Institute of Technology & Science, Gwalior

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal, M.P.)

IDENTITY CARD

DR. ARUN KUMAR WADHWANI

Professor

Electrical Engineering

FATHER NAME	: Shri H.N Wadhwani
MOTHER NAME	: Smt. Radhika Wadhwani
D.O.B.	: 09/12/1966
BLOOD GROUP	: B+
MOBILE NO.	: 9425308846

Dr. R.K.Pandit

Director

INSTITUTE OF ENGINEERING & TECHNOLOGY

BUNDELKHAND UNIVERSITY

KANPUR ROAD, JHANSI-284128

TEQIP-3

I D:TEQIP- 017068

DOB :24-11-1983

BG: A+ ve

ABHAY UPADHYAY

Assistant Professor

DEPARTMENT OF E C E

Father's Name: Sri Ashok Kumar Upadhyay

Res:7512, Shiv Durga Nagar, Gwalior Road, Jhansi-284003 (UP) India, M:+ 91 8319420696s

Card Holder

Project Director(TEQIP-III)

Cordinator(TEQIP)

SAHNEY:52357762267

SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE

Govt. Aided Autonomous Institute, Estd.: 1952

S Name : Amit Naik

T Designation : Associate Professor

I Department : ELECTRONICS & TELECOMM

S Employee ID : 0400270

G Blood Group : B+

S

DIRECTOR

23, Sir M. Visvesvaraya Marg, Indore 452003 MP. +91 731 2582 10

Dr. RAMMANOHAR LOHIYA AVADH UNIVERSITY

AYODHYA, UTTAR PRADESH, 224 001

EMPLOYEE IDENTITY CARD

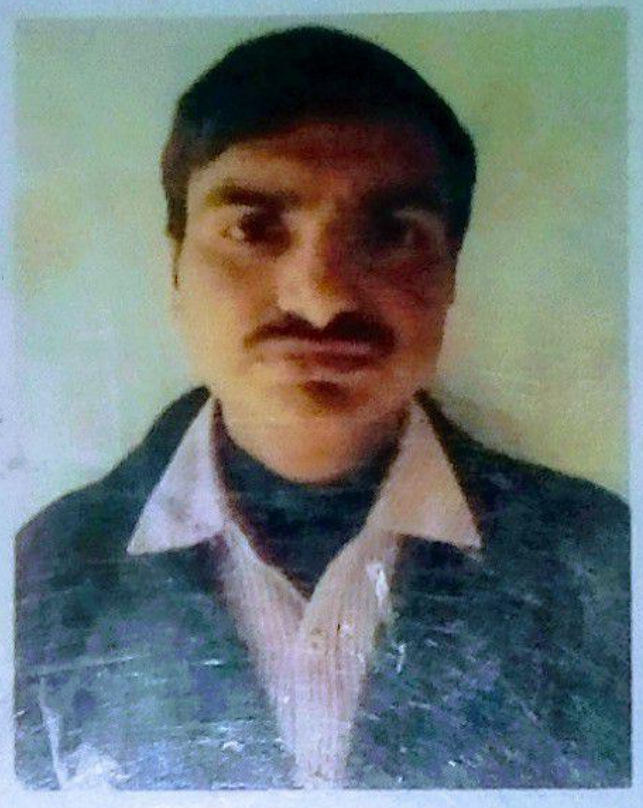
Chandra Shekhar Verma
Assistant Professor

Department: CSE
Father's Name: Parashuram Prasad
Mobile No: 8886708379
ADHAR/PAN:
Address: Iet ayodhya near janoura bypass ayodhya-224

Employee Sign HoD/Director Sign Proctors Sign & Fascimile across Photograph

Madhav Institute of Technology & Science

Race Course Road, Gola ka **r-05**



Name: Deobrat Singh

Valid Upto: 30/06/2021

W

TEQIP008709

मध्यप्रदेश शासन

तकनीकी एवं कौशल विकास विभाग

शासकीय, "उज्जैन इंजीनियरिंग कॉलेज", उज्जैन (म.प्र.)

आई.डी. नम्बर - UECU/300/16 फोन नम्बर - 2511912 (कार्यालय)

नाम	डॉ. दिलीप कुमार शर्मा
पदनाम	सह. प्राध्यापक
विभाग	इलेक्ट्रानिक्स इंजी.
ग्रेड	A
रक्त समूह	O+
आधार नम्बर	202286309999
मोबाईल नम्बर	9425307428

हस्ताक्षर

हस्ताक्षर प्राचार्य

SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE

Govt. Aided Autonomous Institute, Estd.: 1952

S G S I T S

Name : **Abhishek K. Sah**

Designation : **Assistant Professor**

Department : **PHARMACY**

Employee ID : **3200689**

Blood Group : **B+**

DIRECTOR

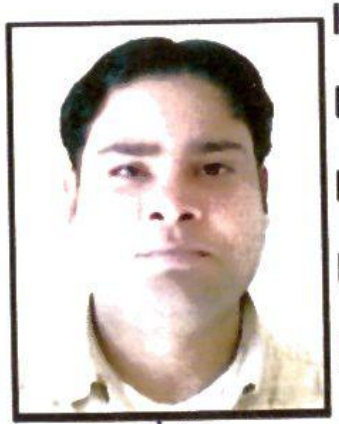
23, Sir M. Visvesvaraya Marg, Indore 452003 MP. +91 731 2582 10

Government of India

Ministry of Human Resource Development

Dr. B. R. Ambedkar National Institute of Technology Jalandhar

(Institute of National Importance by the act of Parliament-2007.)
Jalandhar, 144011 Punjab (India) Ph. +91-181- 2690301



Identity card No: NITJ/2019/519

Name : AVIRAL MISRA

Father's Name : SH. GANGA SARAN MISRA

Designation : ASSISTANT PROFESSOR

Department : INDUSTRIAL & PRODUCTION ENGG.

Date of Birth : 23-11-1983

Signature of Card Holder

Registrar

Signature of Card Holder

DEENBANDHU CHHOTU RAM
UNIVERSITY OF SCIENCE AND TECHNOLOGY

(Established Under Haryana Legislature Act No. 29 of 20[illegible])
Murthal Sonepat-131039 (Haryana)
Tel. : 0130-2484173, Fax : 0130-2484005

IDENTITY - CUM LIBRARY CARD

Name : ROHTASH

Designation : ASSISTANT PROFESSOR

Department : ELECTRICAL ENGINEERING

F113

Employee's Signature

राष्ट्रीय प्रौद्योगिकी संस्थान नागालैंड

NATIONAL INSTITUTE OF TECHNOLOGY NAGALAND

Chumukedima, Dimapur, Nagaland – 797 103

Staff Identity Card

Staff Name : Ganga D

ID No. : 30301

Designation : Assistant Professor

Department : Electrical and Electronics Engineering

Director

GOVT. OF ASSAM

Jorhat Institute of Science & Technology

(Formerly Science College)

Jorhat- 785010 (Assam)

सत्यमेव जयते

IDENTITY CARD

Name : ***Golam Imran Hussain***

Designation : Assistant Professor

Date of Birth : 02-07-1991

Emp. Code : JIST/511/2018

Principal

Jorhat Institute of Science and Technology

Jorhat-10 (Assam)

SAMRAT ASHOK TECHNOLOGICAL INSTITUTE

(An Autonomous Engineering College)

(Established in 1960)

VIDISHA (M.P.) 464 001

Name : Hemant Dangi

Designation : Asstt. Professor

Department : Bio-Medical Engg.

Date of Joining : 12-08-2013

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Emp.No.:8000265

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Department:Information Technology

K K Sharma
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S M Hussain
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SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE

Govt. Aided Autonomous Institute, Estd.: 1952

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Name : **Vibha Bhatnagar**

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Issued on : 24-01-2018

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NATIONAL INSTITUTE OF TECHNOLOGY

ROURKELA

AN INSTITUTE OF NATIONAL IMPORTANCE
UNDER MHRD, GOVT. OF INDIA

PROF. PUNEET KUMAR JAIN

Assistant Professor Grade-II

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Signature

Registrar

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Research Scholar

Electrical Engineering

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MOTHER NAME	: Smt Sarojni Maurya
D.O.B.	: 26-11-1990
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MOBILE NO.	: 8840237878

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SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE

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Name : **Ramchandra Gurjar**

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Oct 19, 2020

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Established 2011 as Constituent College by Government of Uttarakhand

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Name	: Ramnaresh Pal
Designation	: Assistant Professor
Department	: Electronics & Comm. Engg.
D.O.B	: 27/09/1982
D.O.J	: 29/09/2018

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Father Name : Shri. Aarif Siddiqui

Date of Birth : 10/08/1987

Designation : Assistant Professor

Department : Electronics & Communication Engineering

Classification : Group "A" (TEQIP-III)

TEQIP COORDINATOR
DR. B.R. AMBEDKAR INSTITUTE OF TECHNOLOGY
ANDAMAN & NICOBAR ADMINISTRATION

ISSUING AUTHORITY **Signature of Employee**

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ODISHA, BURLA, SAMBALPUR - 768018

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Electrical Engineering

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BLOOD GROUP : O +ve

Principal

Holder's Sign

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GOVERNMENT OF BIHAR
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IDENTITY CARD

DR. ACHYUTESH DIXIT

Designation :Asst. Professor

ID No. : DST/MIT/133

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Date of Birth : 03/02/1985

Blood Group :

Principal

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SAMRAT ASHOK TECHNOLOGICAL INSTITUTE

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VIDISHA 464001 (M.P.)

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Employee ID : 20159

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DEENBANDHU CHHOTU RAM UNIVERSITY OF SCIENCE AND TECHNOLOGY

(Established Under Haryana Legislature Act No. 29 of 2006)

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DATE OF BIRTH : 20.11.1983

VALID UP TO : 30 Nov.2043

S. NO.	NAME OF DEPENDENT	RELATION	AGE
1.	SHIKHA	WIFE	26
2.	ALINA	DAUGHTER	03
3.	DIVEN ATAL	SON	06 Month

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(An Institute of National Importance)
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DR SANGEETA AKALANK NAKHATE

Des : **ASSISTANT PROFESSOR**

Emp Code No : **11006141204 1**

Deptt : **ELEC & COMM**

Card Holder's Sign

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SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE

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National Institute of Technology, Uttarakhand

शिक्षा मंत्रालय, भारत सरकार के अधीन/Under the Ministry of Education, Govt. of India

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S/o. Shri A. Muthusamy

Associate Professor

Department of Electronics Engineering

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Department of Science&Technology

Bhagalpur College Of Engineering

Bhagalpur -813210

Goverment of Bihar

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Father's Name: Ramdhari Yadav

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Date of Birth: 24.08.1989

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Signature of Candidate: Kuldeep Yadav

Signature of Principal

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Deptt./Office ECE

Holder Signature Priyanka

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(An Autonomous Engineering College)

(Established in 1960)

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Department : Bio-Medical Engg.

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(Engineering College)

(Established in 1960)

VIDISHA 464001 (M.P.)

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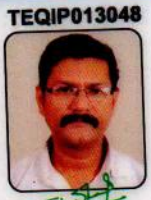
UJJAIN ENGINEERING COLLEGE

(Declared autonomous by State Government of MP)
Sanwer Road, Ujjain M.P. 456010

TEQIP013048



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Principal
Ujjain Engineering College

NATIONAL PROJECT IMPLEMENTATION UNIT

(/)

SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE

Govt. Aided Autonomous Institute Estd. In 1952

NIRF Ranked Institute

Affiliated to Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal & Devi Ahilya Vishwavidyalaya, Indore

Menu

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Associate Professor

ELEX. & INSTRUMENTATION

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Education and Qualification | Work Experience | Research Details

Exam Passed	Exam Conducted by/University/Board	Institute/College/School Name
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M.E.	DAVV	SGSITS

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Top

SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE

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G Blood Group : A+

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THAPAR INSTITUTE
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(Deemed to be University)
Patiala, Punjab

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DEC 07, 2019

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ID CARD NO. HBTU-011

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Designation: Assistant Professor

Affiliation : Deptt. of Chemistry, HBTU Kanpur

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