MTTS Chapter Reporting

MTT-S Region 10 Coordinator Report
Shiban Kishen Koul

December, 2021

MTT-S/AP-S/EMC-S Joint Chapter Hyderabad

OU code: CH10407

Chapter Chair: **Dr. Sandeep Chaturvedi**

Vice Chair: **Dr. Prashant Kumar Mishra**

Secretary: **Dr. Sulakshana Chilukuri**

Treasurer: **Dr. Runa kumari**

Chapter Activities during 2021 Summary

Total # Activities in 2021	# Technical Activities	# Non-Technical Activities
34	27	7

Chapter Activities during 2021

Activity: Joint Chapter Execom Meeting

Date: January 3 , 2021

Venue: Virtual

Attendance:

Activity: Technical Webinar
Topic: 3D Conformal antenna arrays for next generation seekers
Date: 23 Jan 2021
Speaker: Dr. Anil M. Chepala,
Attendance:24

Chapter Activities during 2021

Activity: Joint Chapter Execom Meeting #2
Date: 6 Feb 2021
Venue: Virtual
Attendance: 07

Activity: Technical Webinar jointly with CAS/EDS Chapter
Topic:1. III-V Material And HEMT Device Technology For High Power, High Frequency Applications
: 2. Modeling of LDMOS Structures
Date: 20th Feb 2021
Speaker: Dr. D. S. Rawal, SSPL (DRDO) and Dr. P.A. Govindacharyulu, Manjeera Digital Systems
Attendance: 63

Chapter Activities during 2021

Activity: Two day workshop at Matrusri Engineering College, Hyderabad supported by Chapter
Topic: Microwave Antenna Measurements and Simulation Systems using HFSS
Date: 26 -27 February 2021
Speaker: Prof. S.K. Koul, Dr. M. Lakshminarayana, Dr. Sandeep Chaturvedi, Mr. Sandeep Satav
Attendance: 75 on both days

Activity: Technical Webinar
Topic: Active Phased array antenna systems and associated Subsystems
Date: 13 March 2021
Speaker: Dr. Ashutosh Kedar, LRDE, DRDO
Attendance: 37

Chapter Activities during 2021

Activity: MTT-S Distinguished Microwave Lecture (Webinar)
Topic: Towards Universally Programmable Chip-scale THz Source, Sensors and Systems: Bridging the THz and Application
Date: 27 March 2021
Speaker: Dr. Kaushik Sengupta, Princeton University, New Jersey, USA
Attendance: 54

Activity: Joint Chapter Execom Meeting #3
Date: 4 April 2021
Venue: Virtual
Attendance: 10

Chapter Activities during 2021

Activity: Technical Webinar
Topic: Multifunctional MIMO Antenna for Future Wireless Communication
Date: 10 April 2021
Speaker: Dr. Raghvendra Chaudhary, IIT (ISM) Dhanbad
Attendance: 38

Activity: Technical Webinar
Topic: Design of Antenna and RF Circuit for RF Energy Harvesting
Date: 8 May 2021
Speaker: Dr. Mahima Arrawatia, IIT Guwahati
Attendance: 58

Chapter Activities during 2021

Activity: Joint Chapter Execom Meeting with MTT SBC Faculty chairs and advisors
Date: 23 May 2021
Venue: Virtual
Attendance: 19

Activity: MTT-S Distinguished Microwave Lecture (Webinar)
Topic: Analog Photonic Systems: Features and techniques to optimize system performance
Date: 29 May 2021
Speaker: Dr. Edward Ackerman, FIEEE, Vice president of R&D, Photonics System Inc, USA
Attendance:

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Chapter Activities during 2021

Activity: Technical Lecture (Webinar)
Topic: Design of Broadband High Efficiency High Power Amplifiers
Date: 12th June 2021
Speaker: Dr. S.C. Bera, Scientist ‘G’, Space Application Centre, Ahmedabad
Attendance:

Activity: Technical Lecture (Webinar)
Topic : Generating Quantum Microwaves using Superconducting Circuits
Date: 30th June 2021
Speaker: Dr. Chris Wilson, University of waterloo, Canada
Attendance:

Chapter Activities during 2021

Activity: Technical Lecture (Webinar)
Topic: Design of Higher Order Harmonic and Fundamental Mixers
Date: 10th July 2021
Speaker: Dr. Shailendra Singh, Scientist ‘SF’, Space Application Centre, Ahmedabad
Attendance:

Activity: MTT-S Distinguished Microwave Lecture (Webinar)
Topic : Generating Quantum Microwaves using Superconducting Circuits
Date: 25th July 2021
Speaker: Dr. Jon Martens, Anritsu Inc, USA
Attendance:

Chapter Activities during 2021

Activity: AP-S Distinguished Lecture (Webinar)
Topic: Additive Manufacturing for Antennas and Electronics From GHz to THz
Date: 14th August 2021
Speaker: Dr. Hao Xin University of Arizona, USA
Attendance:

Activity: Technical Lecture (Webinar)
Topic : Through wall Imaging Radar
Date: 29th August 2021
Speaker: Dr. Rabindranath Bera, SMIT, Sikkim Manipal University
Attendance:

Chapter Activities during 2021

Activity: Two days workshop Jointly with MTTS GPREC, Kurnool SBC
Topic: Recent Adbances in Microwaves and Antenna Technology
Date: 20th September 2021
Speaker: 3 Keynote speakers (Prof. Nookala Srinivasa Rao, Dr. Arun Gande and Dr. Prashant Mishra)
Attendance: 35 per session

Activity: Two days workshop Jointly with MTTS MJCET SBC
Topic: Recent Advances in Microwaves and Antenna Technology
Date: 20th September 2021
Speaker: 6 Keynote speakers (Prof. S.K. Koul, Prof. Mahesh Abegaonkar, Prof. K.J. Vinoy, Dr. Aparajita Bandopadhyay, Alok Joshi and Dr. R. MUralidharan)
Attendance: 60 per session

Chapter Activities during 2021

Activity: AP-S Distinguished Lecture (Webinar) Jointly with MTTS Vardhaman SBC
Topic: From Engineering Electromagnetics to Electromagnetic Engineering: Teaching/traing next generations
Date: 20th September 2021
Speaker: Dr. Levent Sevgi, Technological university, Turkey
Attendance:

Activity: Technical Lecture (Webinar)
Topic : EMC Simulation: Past Present and Future
Date: 25th September 2021
Speaker: Dr. Dipanjan Gope, Indian Institute of Science, Bangalore
Attendance:

Chapter Activities during 2021

Activity: AP-S Distinguished Lecture (Webinar)
Topic: Metamaterials a manipulation of waves next generations
Date: 9th October 2021
Speaker: Dr. Erik M. Lier, Lockheed Martin Space, USA
Attendance:

Activity: Expert Technical Lecture (Webinar)
Topic : Improving Measurement Accuracy and Continuity in Wafer-Level Sub-THz Measurements up to 750 GHz for Device Modelling Applications
Date: 17th October 2021
Speaker: Dr. Choon Beng Sia, SMIEEE, Formfactor Singapre Pte. Ltd, Member MTT03 TC
Attendance:

Chapter Activities during 2021

Activity: AP-S Distinguished Lecture (Webinar)
Topic: Scalable Millimeter wave array: Challenges and solutions
Date: 6th November 2021
Speaker: Dr. Duixian Liu, IBM T.J Watson Research Center, USA
Attendance:

Activity: Two days workshop Jointly with MTTS KLU Vijayawada SBC
Topic: Future Wireless Systems
Date: 13th -14th November 2021
Speaker: 4 Keynote speakers (Prof. S.K. Koul, Prof. Debatosh Guha,Dr. Debadeep Sarkar, Prof. R.K. Mishra)
Attendance: 60-80 per session

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Chapter Activities during 2021

Activity: 1st DMI Workshop (Webinar) orgalized by MTT-Global
Topic : High Efficiency, Multi-Function Ground Station Reflector Antennas
Date: 26th November 2021
Speaker: Dr. Maurizio Bozzi
Attendance: Approx 200 students attended in total (100 from classroom, 100 online) from VNR VJIET Hyd, MEC Hyd, CVRCE Hyd, MJCET Hyd, OUCE Hyd, GPREC Kurnool, KLU Vijayawada, NIT warangal

Activity: J. C. Bose Memorial Lecture (Webinar)
Topic : High Efficiency, Multi-Function Ground Station Reflector Antennas
Date: 30th November 2021
Speaker: Dr. V.V. Srinivasan,Director, ISRO Satellite Telemetry Tracking and Command Network Bangalore
Attendance:

Chapter Activities during 2021

Activity: AP-S COPE STEM Workshop for school Children (9^{th}-10^{th} Grade)
Topic: STEM
Date: 4^{th} December 2021
Speaker: Student volunteers
Attendance: 100 Children, 5 Science teachers, 6 student volunteers

Activity: Two day workshop on Digital Radio Design and Applications
Topic : 8 sessions om FPGA based RF system design
Date: 11^{th}-12^{th} December 2021
Speakers: Dr. Meena D, LRDE, Bangalore, Dr. Meenakshi Rawat, IIT Roorkee, Anindya Saha, Saaankhya Labs Bangalore, Dr. Anand Mukhopadhyay, Mathworks India, Dr. Usha Verma, ASL Hyderabad, Dr. Arun Kumar Singh, DLRL Hyderabad, G.Surender/Raju Avidapu, Xilinx India, Prof Robert Stewart, Univ. of Strathclyde, UK
Attendance:

Chapter Activities during 2021

Activity: Three day workshop at Matrusri Engineering College, Hyderabad supported by Chapter
Topic: Microwave Antenna Measurements and Simulation Systems using HFSS
Date: 16 -18 December 2021
Speaker: 8 invited talks (Dr. C Sai Ram, Dr. M. Lakshminarayana, Dr. N.V.S.N. Sarma, IIIT Trichy, Dr. Prashant K. Mishra, Dr. Sulakshana Chilukuri, Mrs. V. Revathi, Dr. Sandeep Chaturvedi) and 4 Hands on sessions by Application expert from Entuple Technologies on Antenna Simulations using HFSS
Attendance: 75 on all three days

Activity: Expert Technical Lecture (Webinar)
Topic : Nano Dielectric Resonator Antenna for High Speed Sensing and communication
Date: 25th December 2021
Speaker: Prof. Rajveer S. Yaduvanshi, NSUT, Delhi
Attendance:

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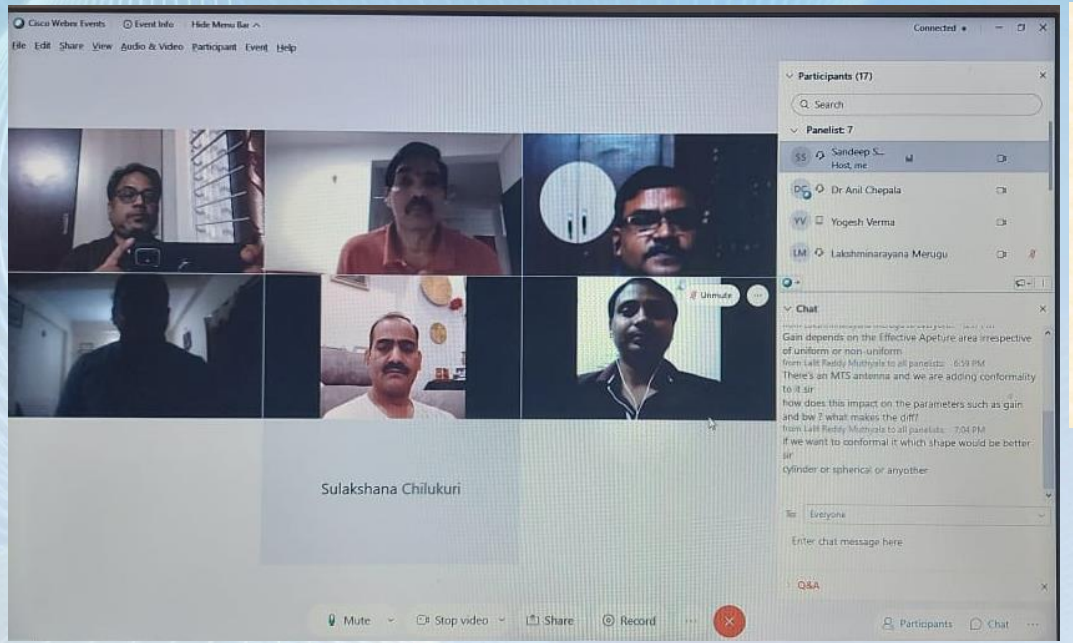
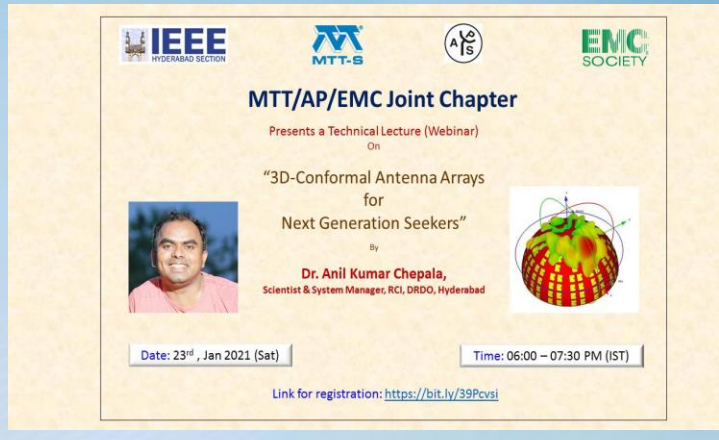
Talk by Dr. Anil MM. Chepala





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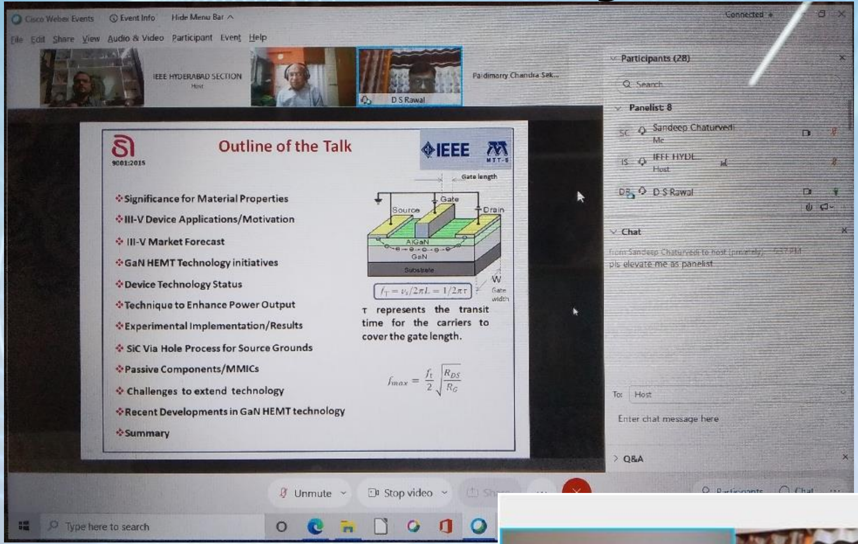
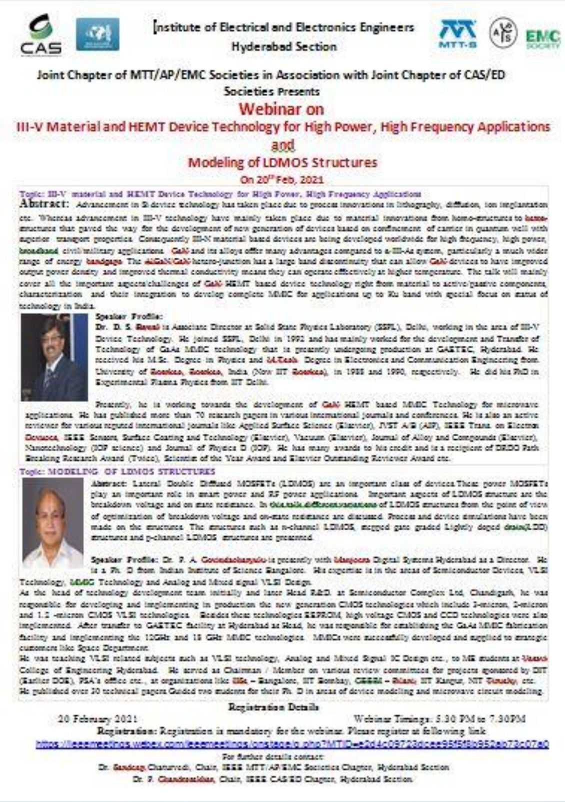
IEEE

Talk by Dr. D.S. Rawal and Dr. PA Govindcharyulu




Institute of Electrical and Electronics Engineers
Hyderabad Section

Joint Chapter of MTT/AP/EMC Societies in Association with Joint Chapter of CAS/ED Societies Presents

Webinar on

III-V Material and HEMT Device Technology for High Power, High Frequency Applications

and

Modeling of LDMOS Structures

On 20th Feb, 2021

Topic: III-V material and HEMT Device Technology for High Power, High Frequency Applications

Abstract:

Speaker Profile:

Topic: MODELING OF LDMOS STRUCTURES

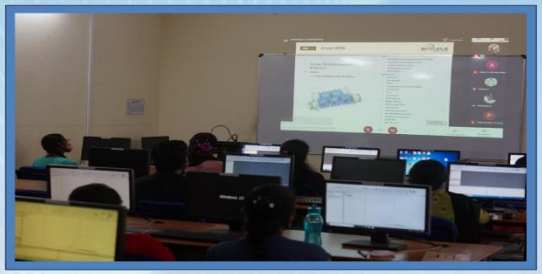
Registration Details

20 February 2021 Webinar Timings: 5.30 PM to 7.30PM

Registration: Registration is mandatory for the webinar. Please register at following link

For further details contact:

Two days workshop at Matrusri Engineering college, Hyderabad



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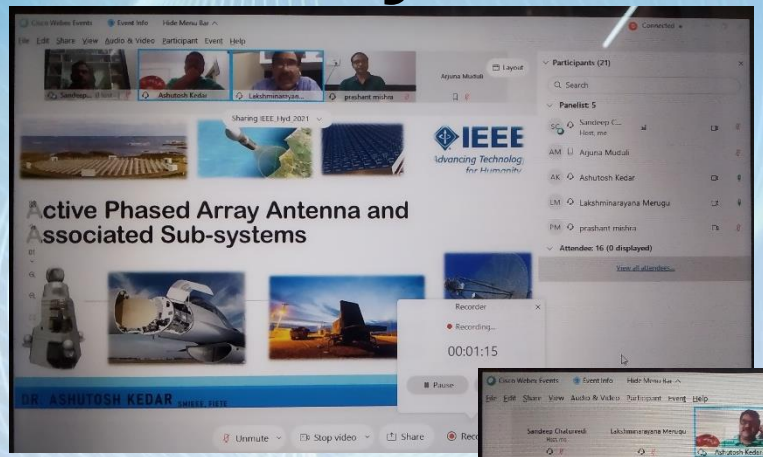
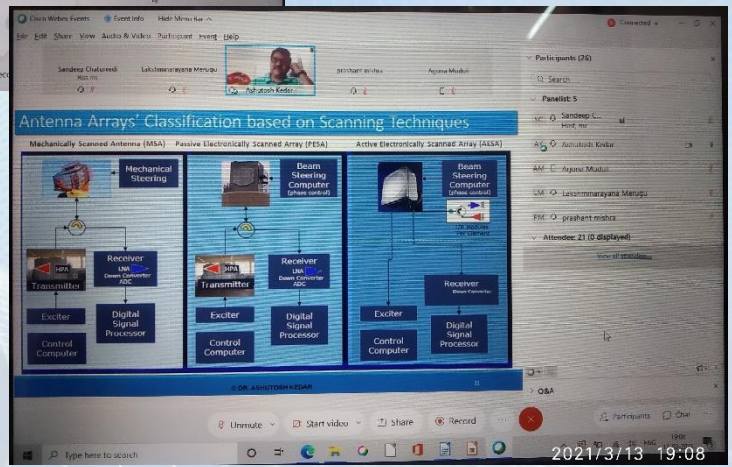
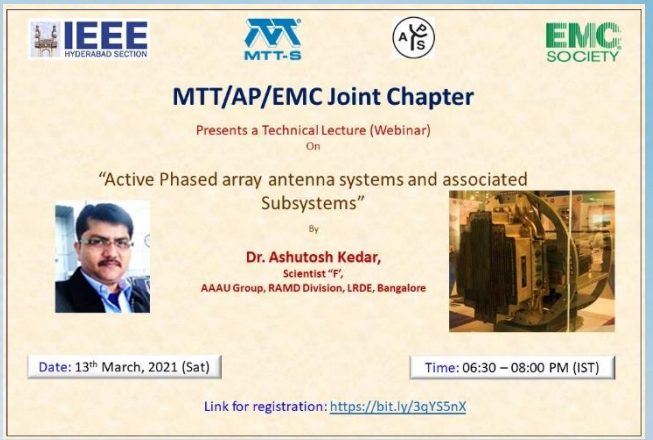
Talk by Dr. Ashutosh Kedar







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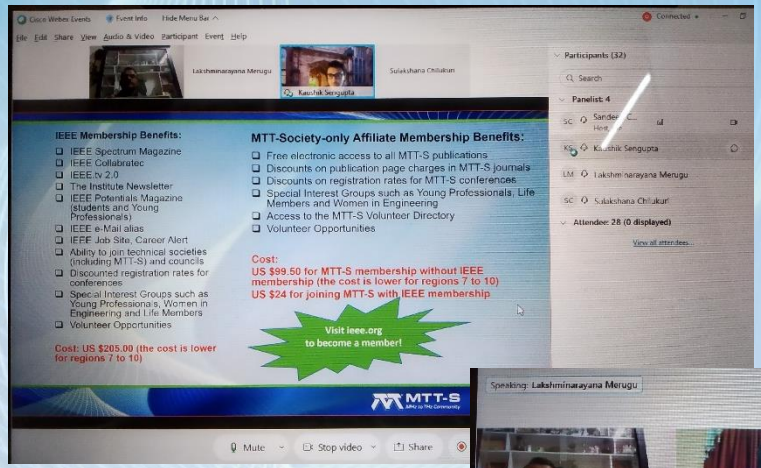
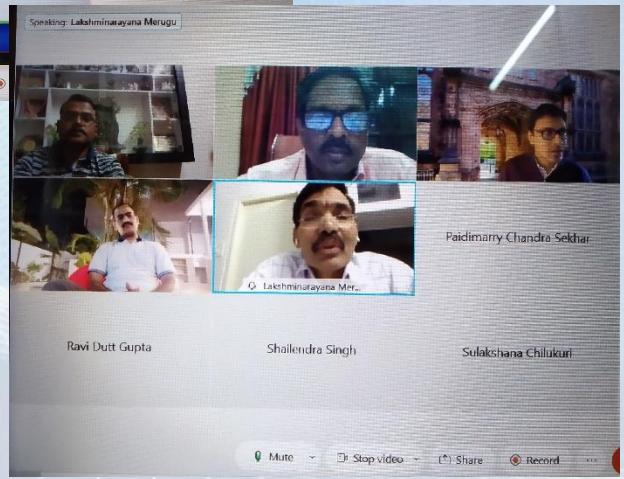
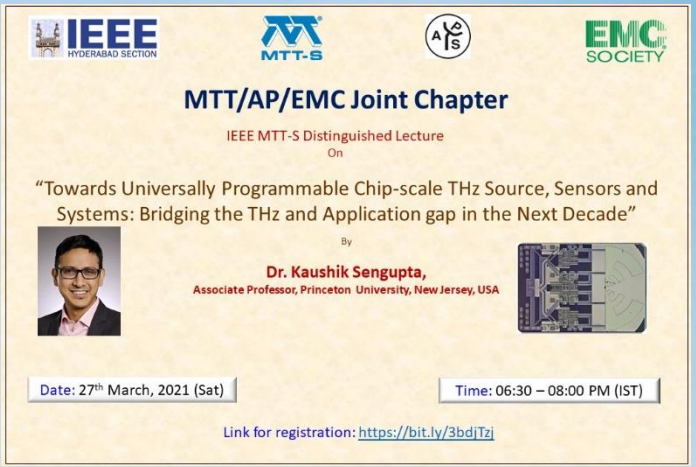
DML Talk by Dr. Kaushik Sengupta







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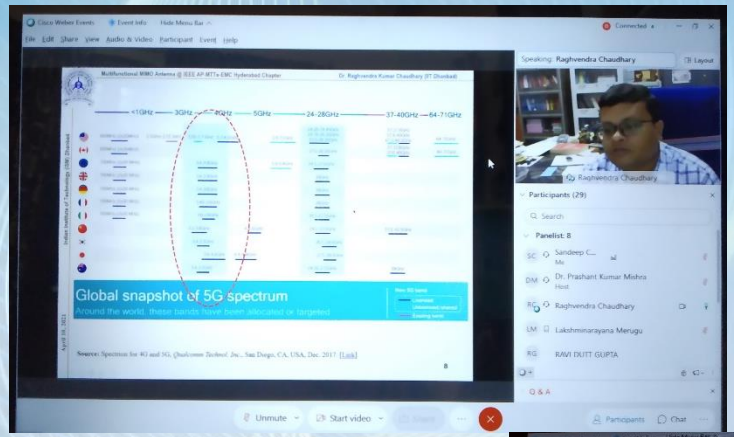
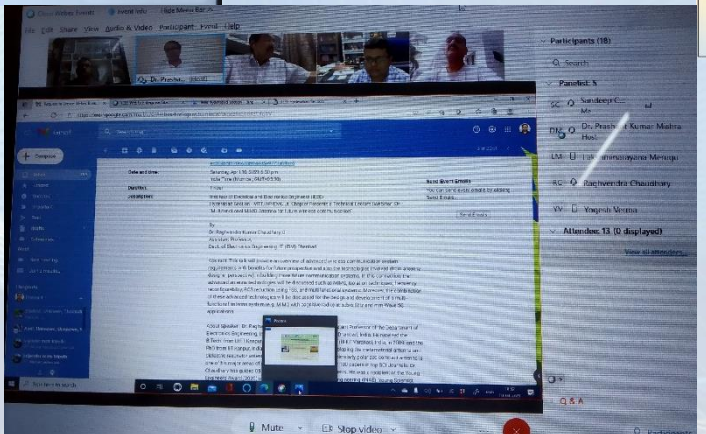
Talk by Dr. Raghvendra Chaudhary





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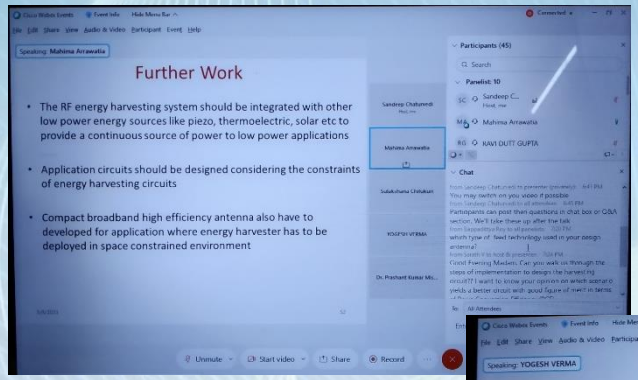
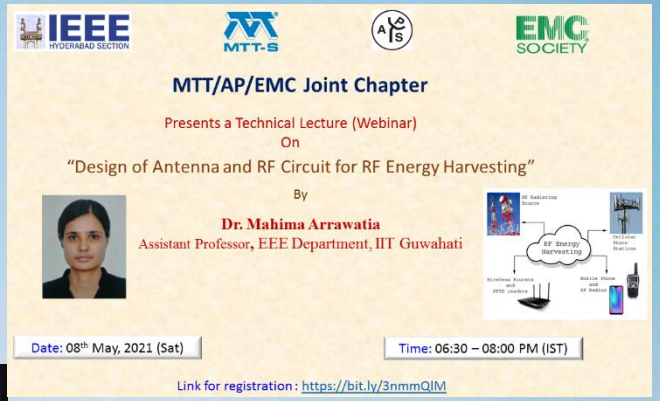
Talk by Dr. Mahima Arrawatia





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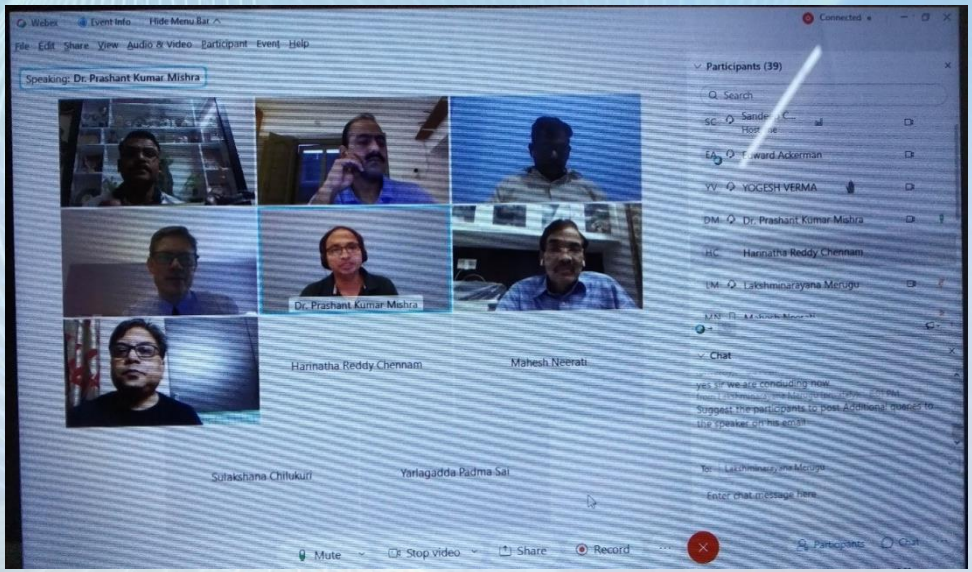
DML Talk by Dr. Edward Ackerman



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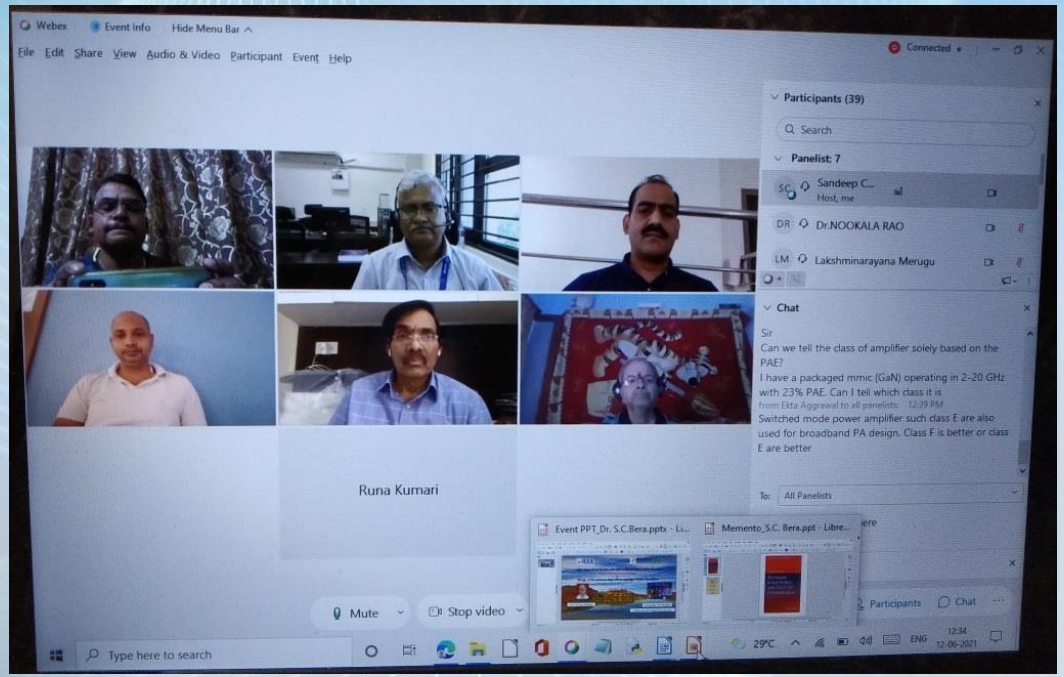
Talk by Dr. S.C. Bera



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Talk by Dr. Chris Wilson

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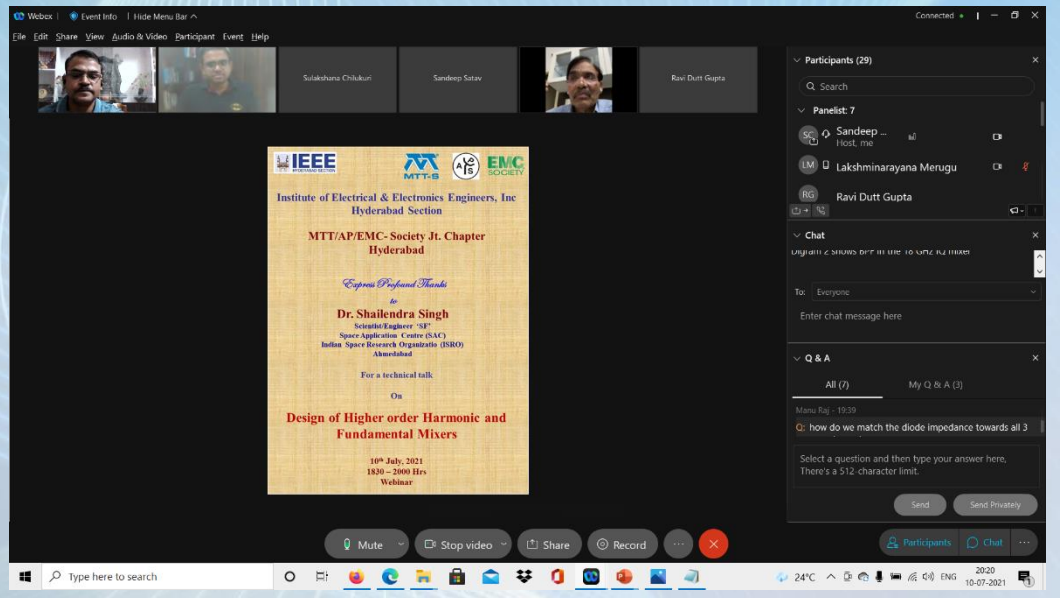
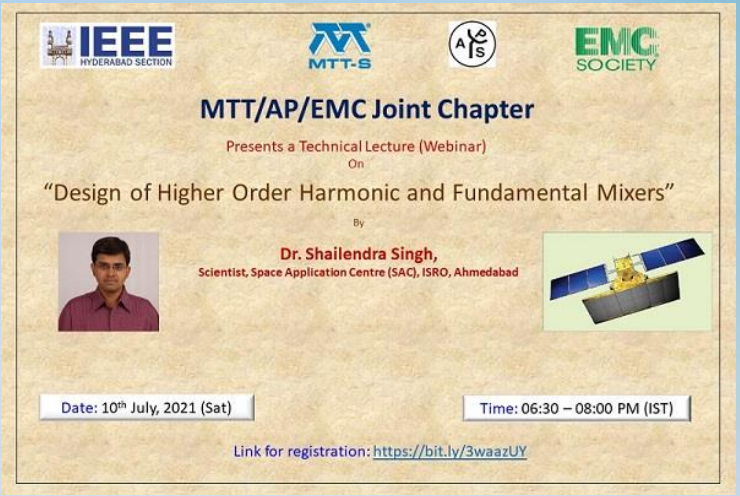
Talk by Dr. Shailendra Singh





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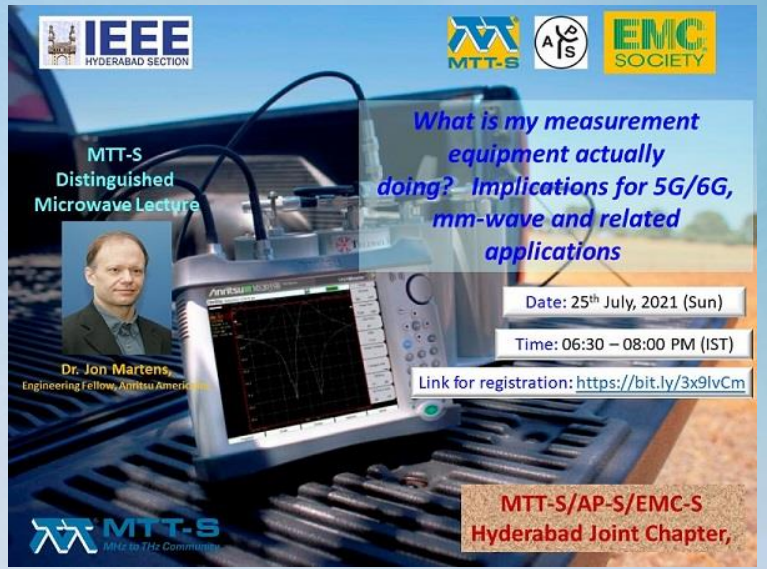
DML Talk by Dr. Jon Martens



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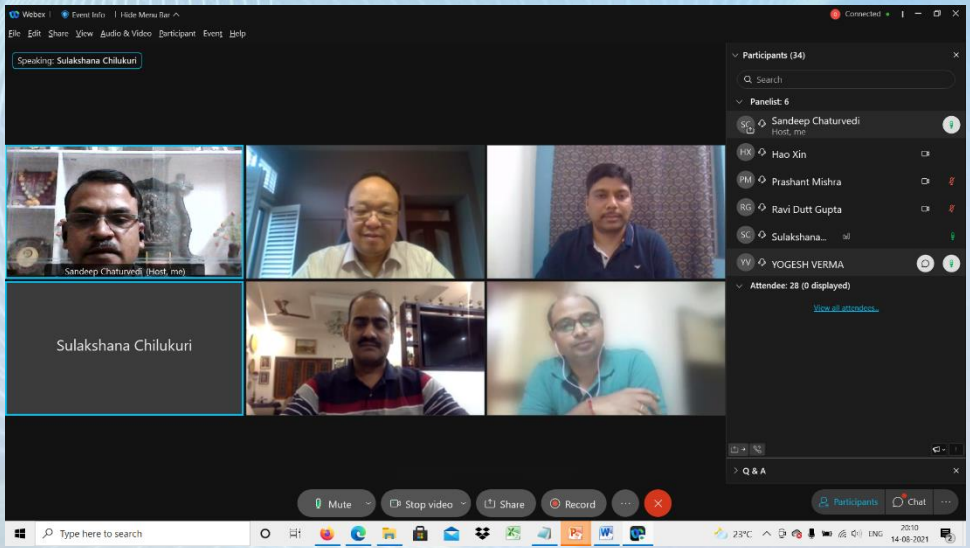
AP-S DL Talk by Dr. Hao Xin



MTT-S MHz to THz Community

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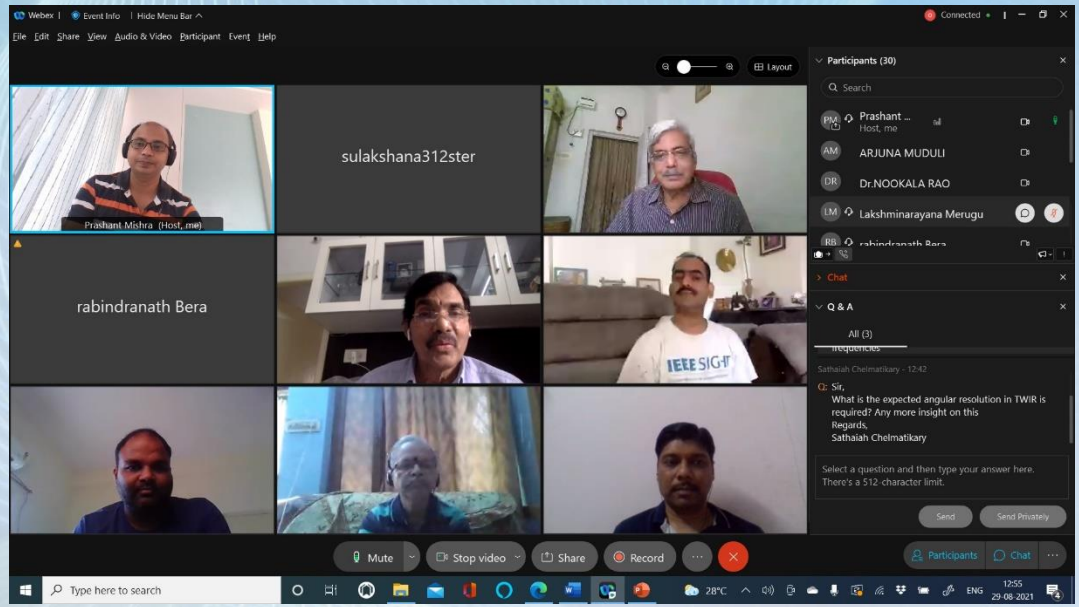
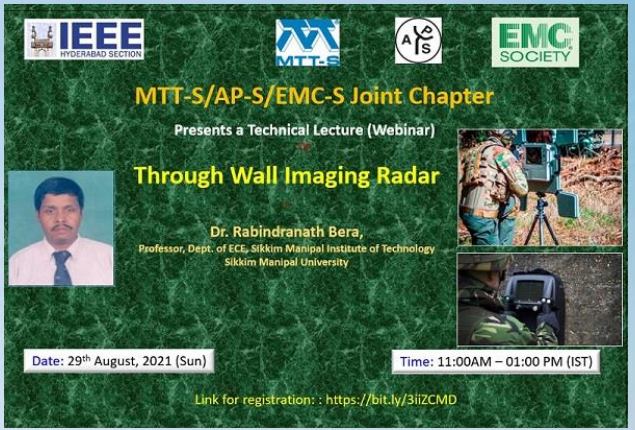
Talk by Dr. Rabindranath Bera





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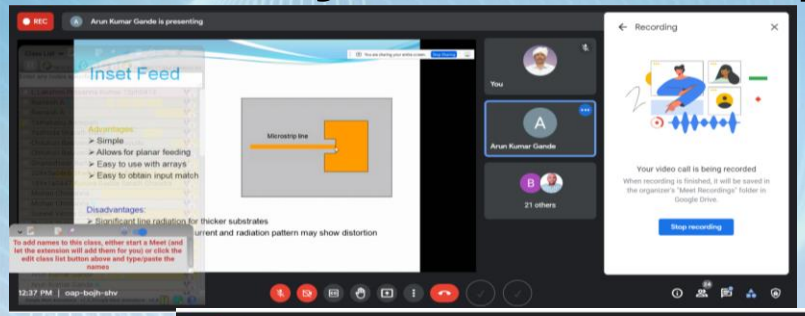
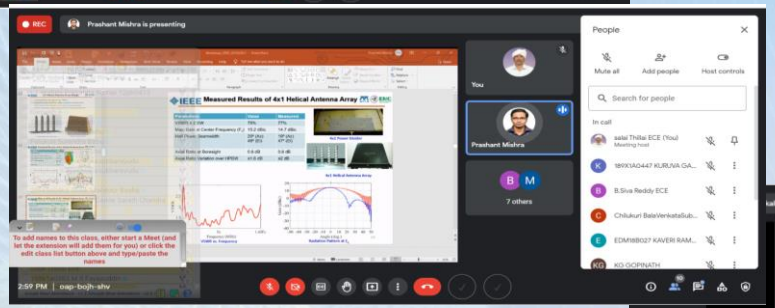
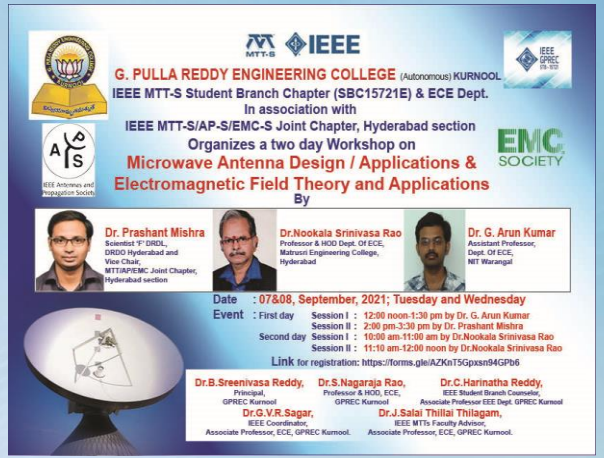
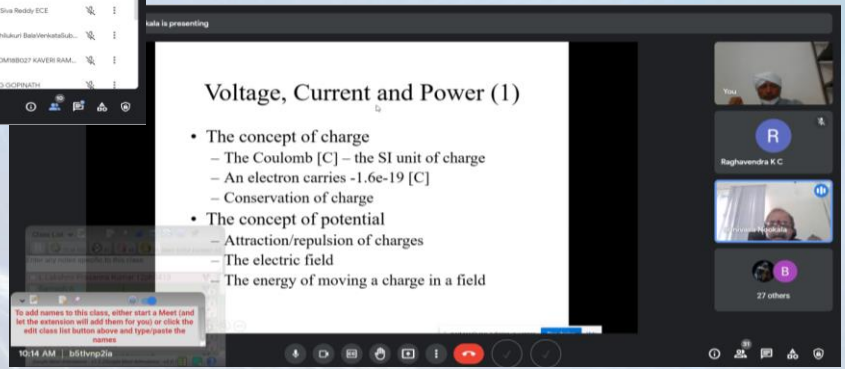
2-days workshop at GPREC Kurnool









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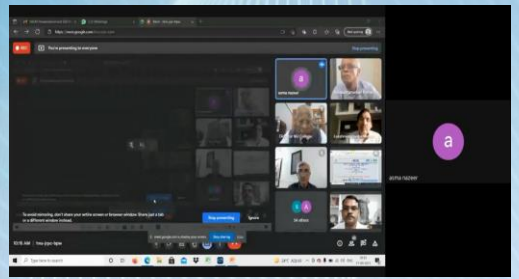
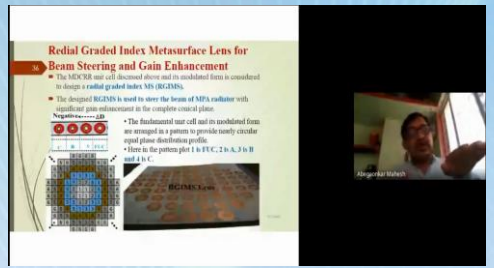
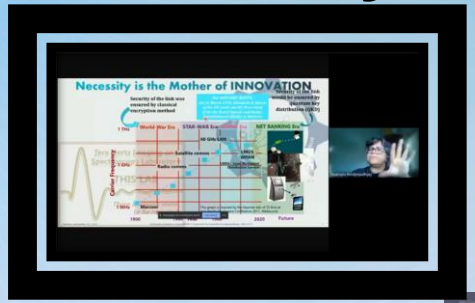
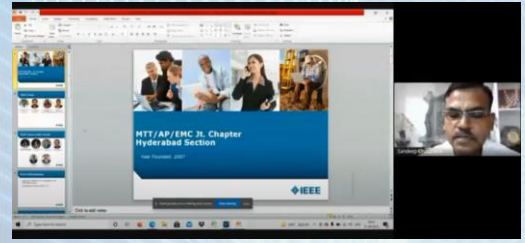
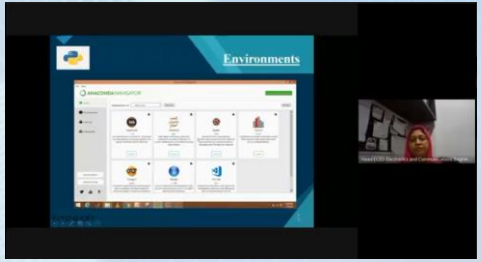
3-days workshop at MJCET Hyderabad

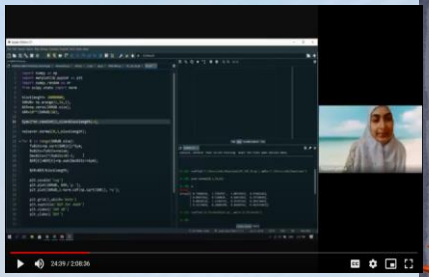


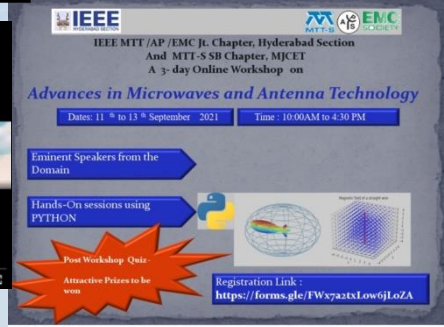


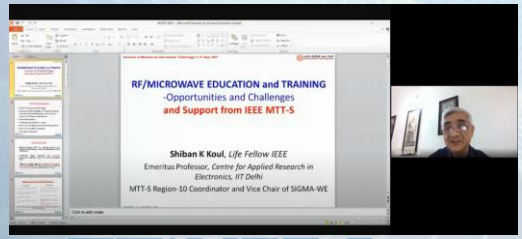


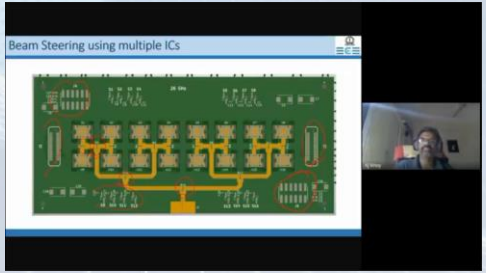


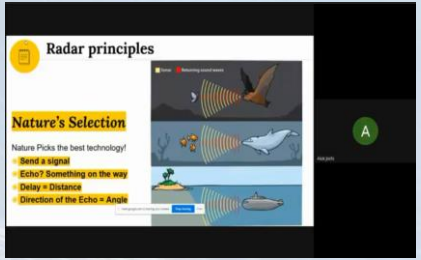








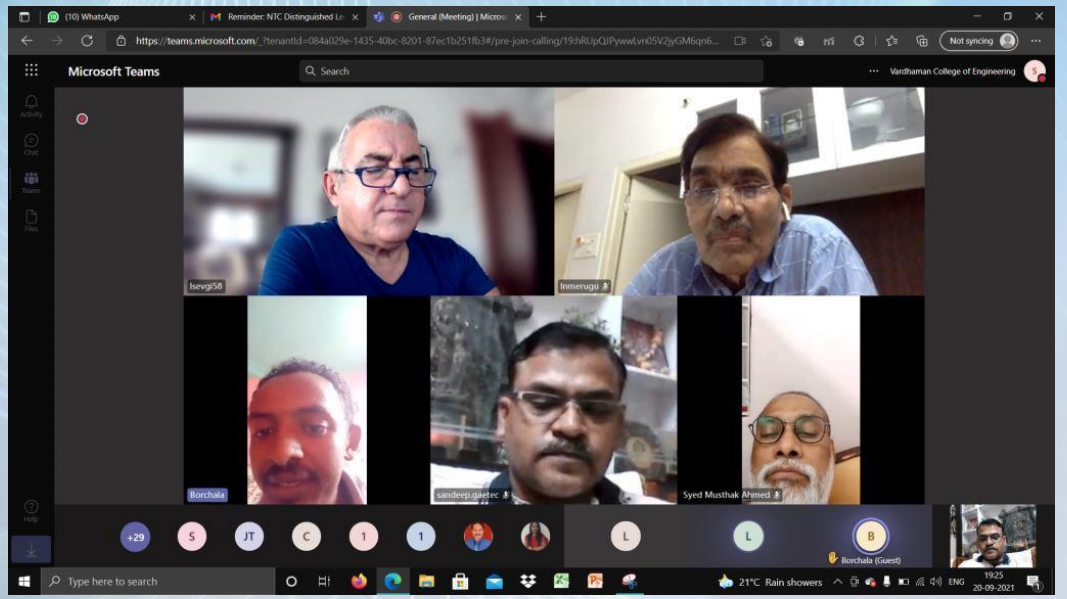




MTT-S MHz to THz Community

IEEE

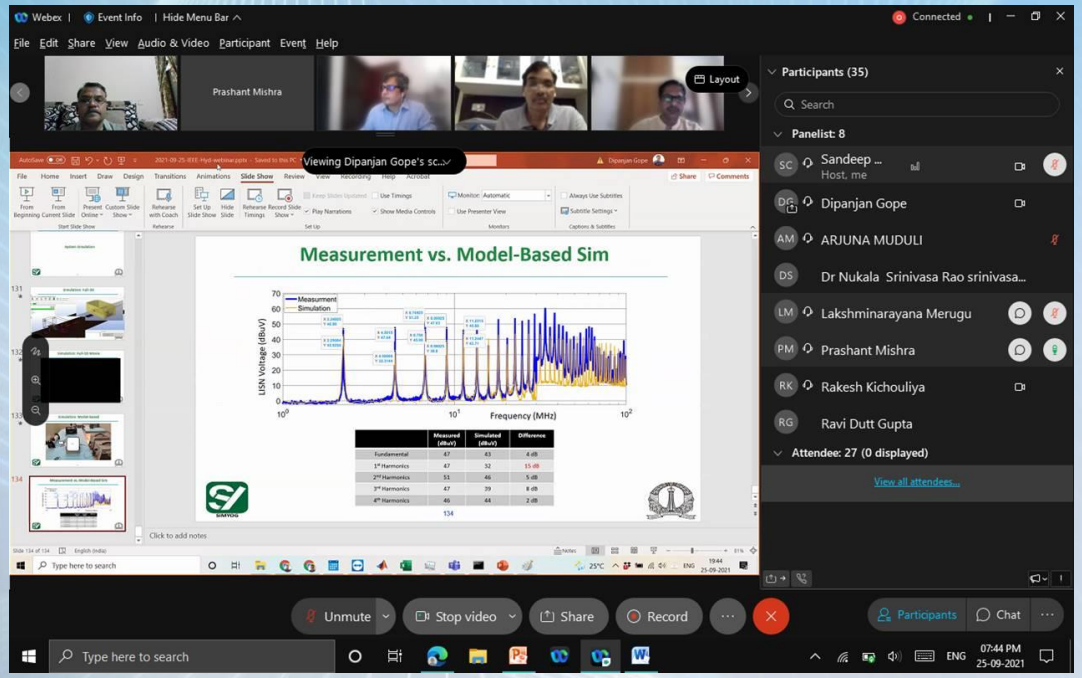
AP-S DL Talk by Prof. Levent Sevgi
(Jointly with MTTS Vardhman SBC)

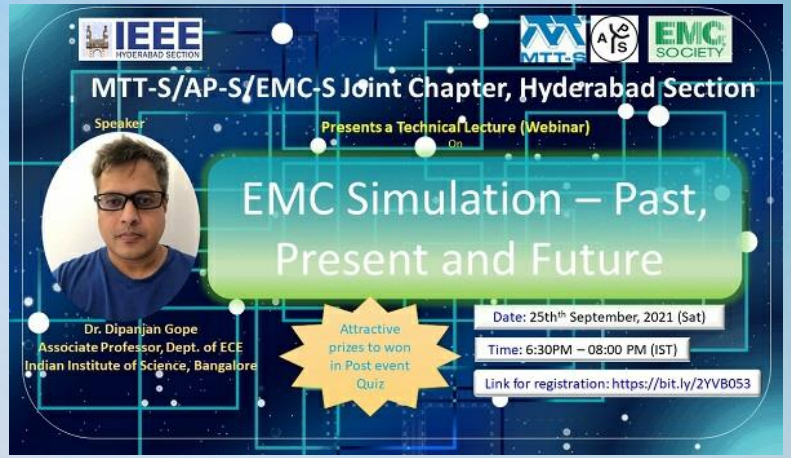


MTT-S MHz to THz Community

IEEE

Talk by Dr. Dipanjan Gope

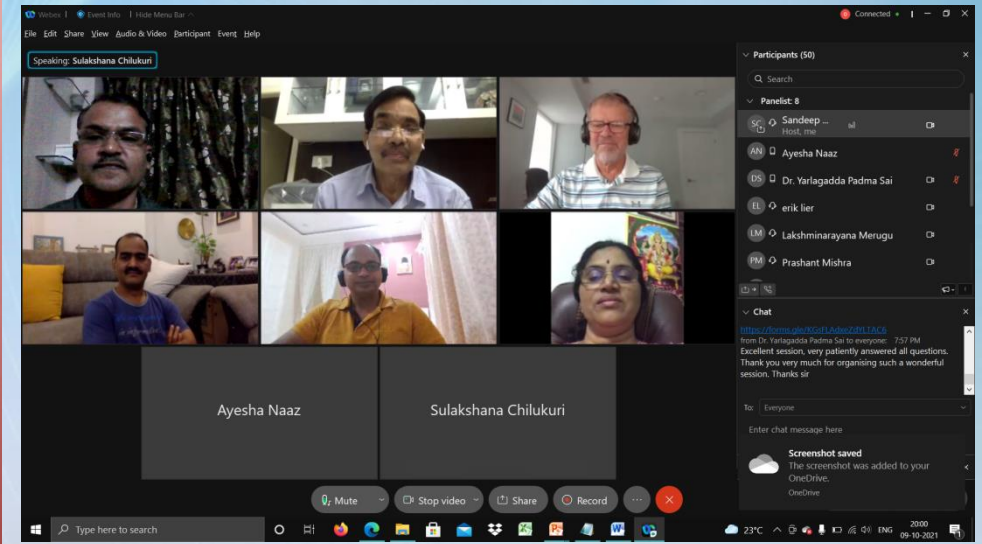




MTT-S MHz to THz Community

IEEE

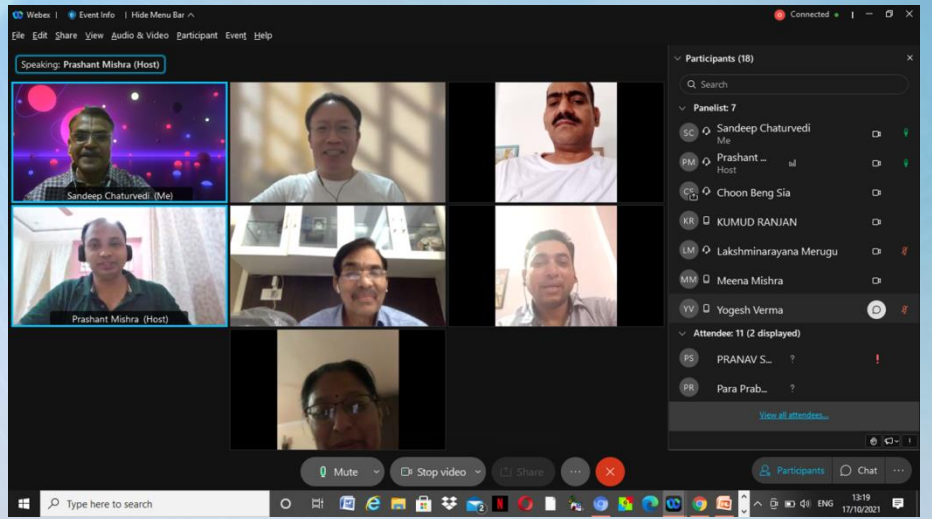
AP-S Distinguished Lecture by Dr. Erik Lier



MTT-S MHz to THz Community

IEEE

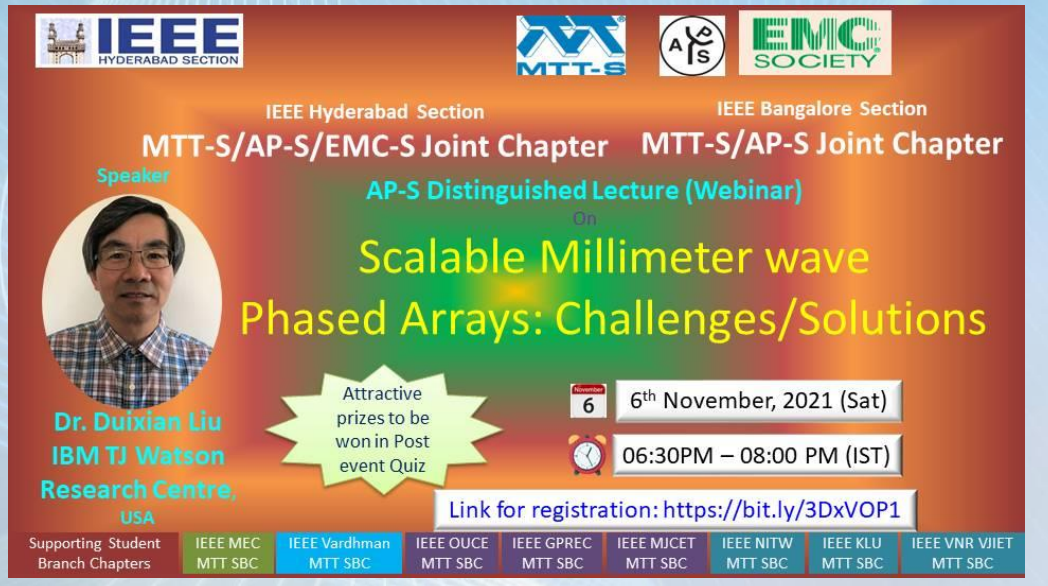
Expert Lecture by Dr. Choon Beng Sia

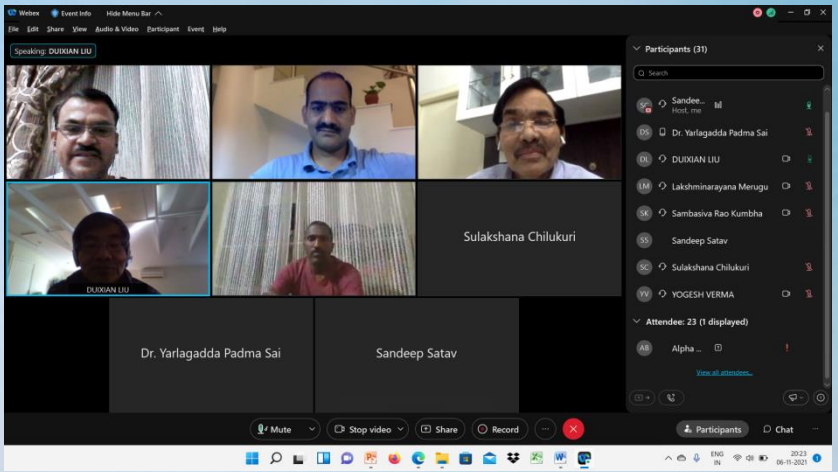


MTT-S MHz to THz Community

IEEE

AP-S Distinguished Lecture by Dr. Drixian Liu

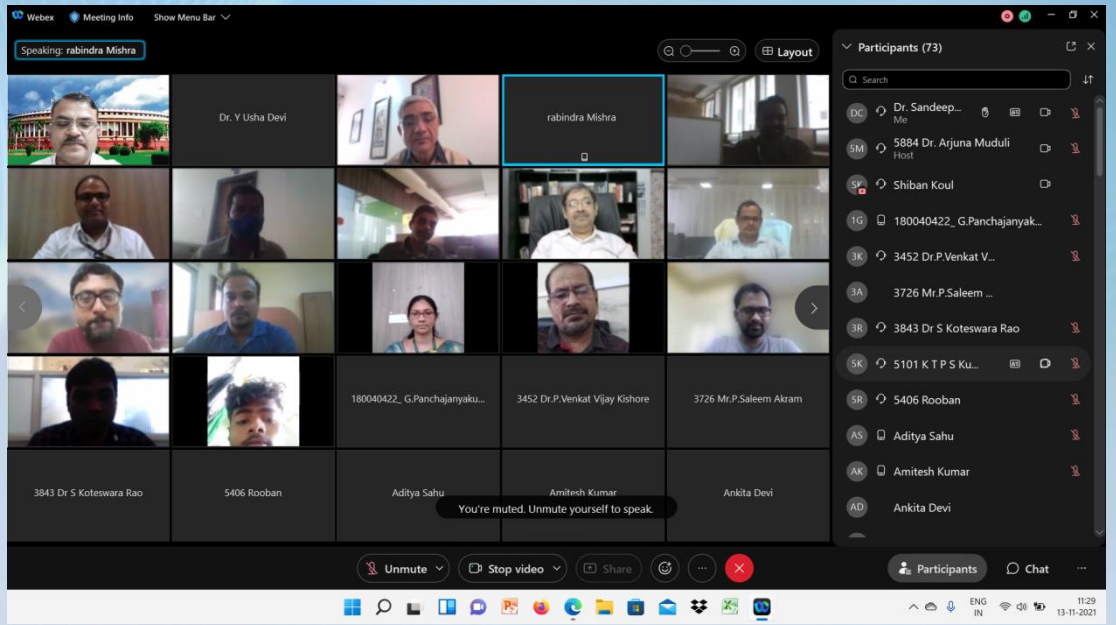




MTT-S MHz to THz Community

IEEE

Two days workshop Jointly with MTTS KLU Vijayawada SBC



MTT-S MHz to THz Community

IEEE

DMI Workshop on 26th Nov 2021

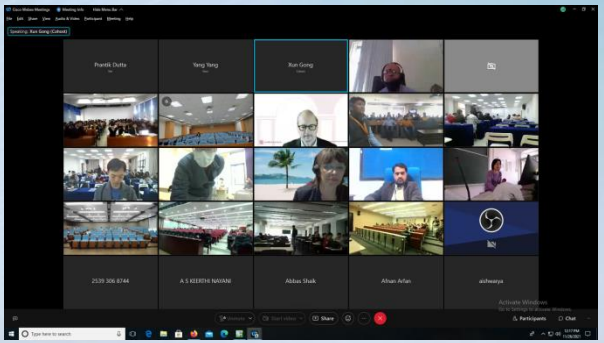
~200 Students participated from Hyderabad region through classroom and online mode

Matrusri MTT SBC classroom

GPREC Kurnool MTT SBC classroom

VNR VJIET MTT SBC classroom

OUCE MTT SBC classroom

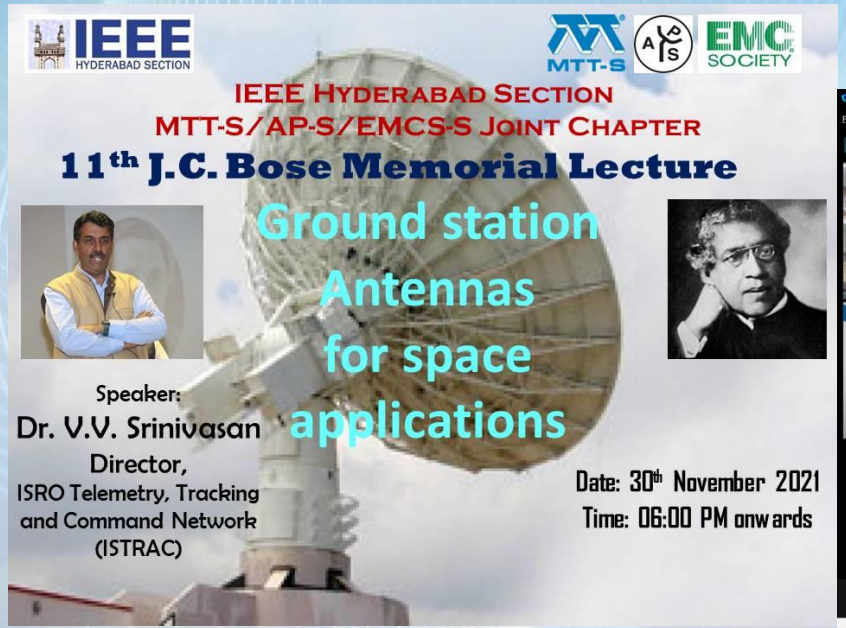


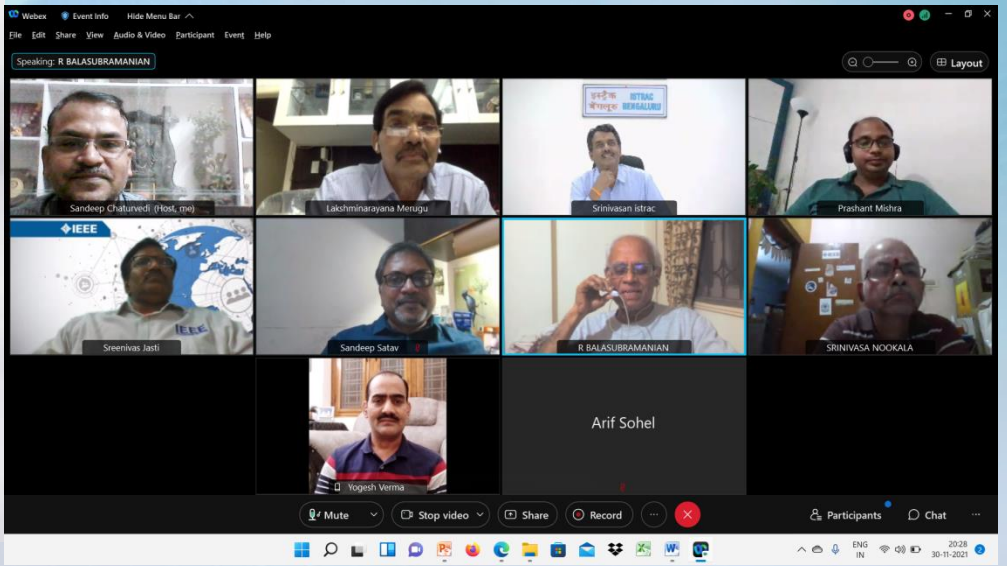
NIT Warangal, KLU Vijayawada @online

MTT-S MHz to THz Community

IEEE

JC Bose memorial lecture by Dr. V.V. Srinivasan





MTT-S MHz to THz Community

IEEE

AP-S COPE STEM Workshop for School Children

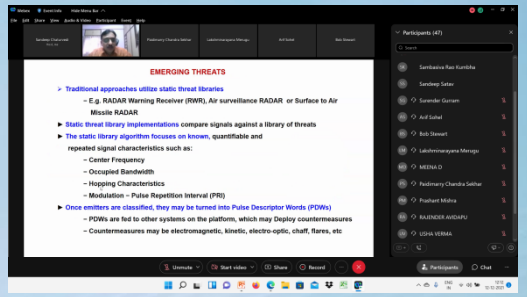
MTT-S MHz to THz Community

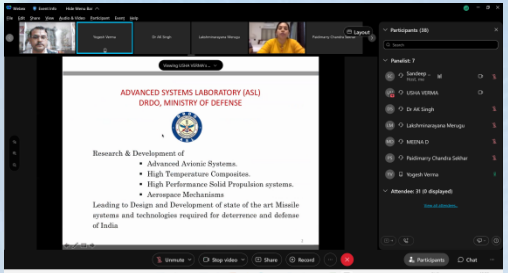
IEEE

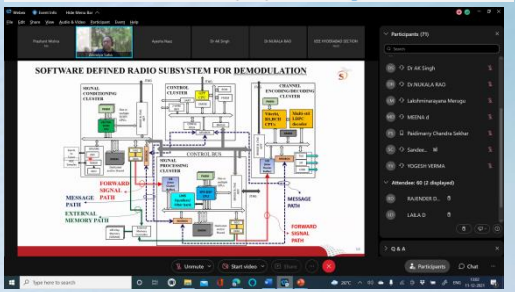
2-day workshop on “Digital radio design and Applications”

Schedule

	10:00-11:00 Hrs	11:10-12:10 Hrs	12:20-13:20 Hrs	14:30-16:30 Hrs
Day-1 (11th Dec 2021)	FPGA based digital beamforming	Digital linearization Techniques: Optimizing energy and spectrum efficiency of Digital Radios	SaankhyaLabs SDR Platform for Telecom Applications	Model based DSP design using System Generator
	Dr. D. Meena, Scientist, LRDE Bangalore	*Dr. Meenakshi Rawat, Assosiate Professor, Dept of ECE, IIT Roorkee*	Anindya Saha, CTO, Saankhya Labs, Bangalore	*Surender Gurram, Xilinx India*
Day-2 (12th Dec 2021)	Direct RF Processing FPGA systems for DRFM based Electronic Counter Measures	FPGA based Digital Receivers for EW Applications	Design and Prototype FPGA/ASIC Systems using MATLAB & Simulink	Software Defined Radio using the Xilinx RFSoC: Technology, Design Flow and Demonstration
	Dr.Usha Varma, Scientist 'G' and Technology Director SSE, ASL/RCI Hyderabad	*Dr. Arun Kumar Singh, Scientist, DLRL Hyderabad*	*Dr. Anand Mukhopadhyay, Mathworks India*	*Prof Robert Stewart and team, University of Strathclyde*







MTT-S MHz to THz Community

IEEE

3-days workshop on Antenna Measurement and simulations using HFSS jointly with Matrusri MTT SBC

MTT-S MHz to THz Community

IEEE

Expert Lecture by Dr. Rajveer Yaduvnashi

IEEE HYDERABAD SECTION

IEEE Hyderabad Section

MTT-S/AP-S/EMC-S Joint Chapter

Speaker

Expert Lecture (Webinar)

On

Nano Dielectric Resonator Antennas for 5G Applications

Dr. Rajveer S. Yaduvanshi
Professor, Dept of ECE
NSUT Delhi

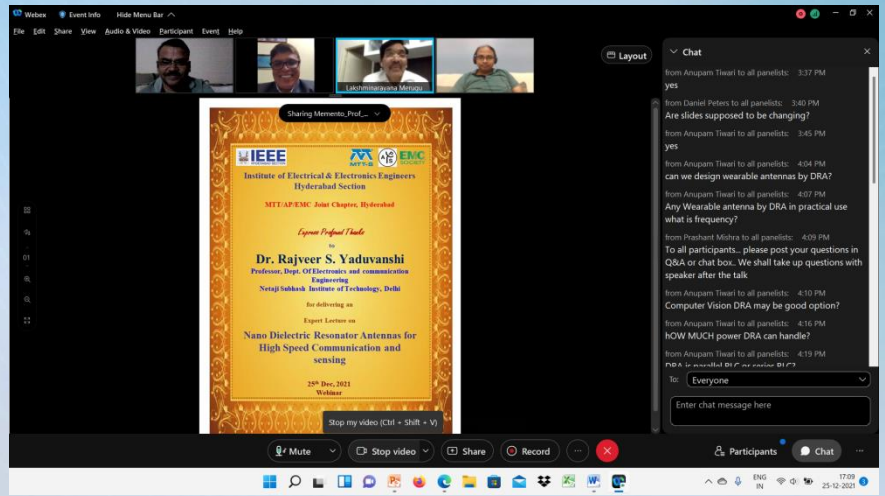
Attractive prizes to be won in Post event Quiz

25 25th December, 2021 (Sat)

03:00 PM – 05:00 PM (IST)

Link for registration: https://bit.ly/3efypY4

Supporting Student Branch Chapters	IEEE MEC MTT SBC	IEEE Vardhman MTT SBC	IEEE OUCE MTT SBC	IEEE GPREC MTT SBC	IEEE MJCET MTT SBC	IEEE NITW MTT SBC	IEEE KLU MTT SBC	IEEE VNR VJIET MTT SBC



MTT-S MHz to THz Community

IEEE

Future Chapter Activities

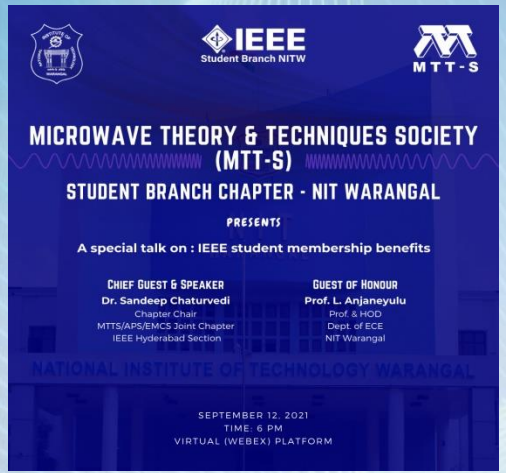
9th October 2021: AP-S Distinguished Lecture on “Metamaterials-A manipulation of waves by Dr. Erik Lier, Lockheed Martin Space, USA

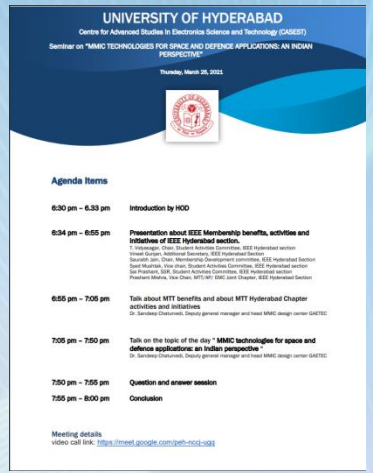
17th October 2021: Expert Lecture on “Improving Measurement Accuracy & Continuity in Wafer-Level Sub-THz Measurements up to 750 GHz for Device Modeling Applications” by Dr. Choon Beng Sia, Formfactor Pte Ltd., Singapore

6th November 2021: AP-S Distinguished Lecture on “Scalable Millimeter wave Phased Arrays: Challenges and Solutions” by Dr. Drixian Liu, IBM TJ Watson Research Centre, USA

30th November 2021: JC Bose memorial lecture on “Ground Station Antennas for Space Applications”, by Dr. V.V. Srinivasan, Director, ISTRAC, Bangalore

Membership development campaigns and results





Muffakham Jah College of Engineering and Technology

IEEE Student Branch MJCET in collaboration with

IEEE MTT/AP/EMC Chapter of Hyderabad Section

Presents Webinar on

MMIC Technologies for Space and Defence Applications: an Indian perspective

Date: 12 April 2021 Timing: 6.00PM to 7.00PM

Link: https://meet.google.com/sog-mooe-dws (Please join by 5.55 PM)

Select OU of your Volunteer Role: Hyderabad Section Jt Chapter, AP03/M...
Region: R10
Grade: (All)
IEEE Statu: Active

Count by Region and Grade

Region	Council	Section	Grade Category	Grade	Total
R10	India Council	Hyderabad Section	IEEE Grades	Associate Member	2
				Fellow	1
				Graduate Student Member	49
				Life Fellow	1
				Member	62
				Senior Member	40
				Student Member	261
			Total		416
		Vizag Bay Section	IEEE Grades	Graduate Student Member	1
			Total		1
		Total			417
	Total				417
Grand Total					417

Snapshot of Hyd MTT/AP/EMC Joint Chapter membership statistics as on 29th December 2021

MTT-S MHz to THz Community

IEEE

Student Activity

Established 4 New student Branch Chapters (total 8 SBC with Hyd chapter now)

MJCET Hyderabad, NIT Warangal, KL University Vijaywada, VNT VJIET, Hyderabad

Revived membership strength at Osmania university MTT SBC

Student/Graduate student membership growth of >30% in 2021