

Symposium on Photonics, Electromagnetics, Electronics and Devices (SPEED) 2022: ECE, IISc

Day 1, 11th July (Monday)

08:55pm-09:00am	Welcome – K. J. Vinoy
	Session 1: Invited Talks Chair: K J Vinoy (ECE, IISc) Student Organizers: Jyothsna, Abhijith
09:00am-09:30am	1.1: Pathway to a fully connected world - Prasad Bhat (Co-Founder, Chairman and CTO, Astrome)
09:30am-10:00am	1.2: Fundamental and Frontier of Ultra-wideband systems - Dhiraj K Singh (Scientist, LRDE, DRDO)
10:00am-10:30am	1.3: Functional static and dynamic biomedical tomographic imaging with optical fluorescence - Naren Naik (Professor, IIT Kanpur)
10:30am-10:45am	BREAK
10:45am-11:30am	Session 2: Student Lightning Talks Chair: Dipanjan Gope (ECE) Student Organizer: Akash, Alok
	2.1: Quantitative Nonlinear optical microscopy with enhanced specificity and resolution for biomedical imaging - Jyothsna KM (ECE, IISc)
	2.2: How phase noise of PLL gets affected by CMOS LO distribution - Sumit Kumar (ECE, IISc)
	2.3: Modeling and Simulation of FIVR - Srinivasan Govindan (ECE, IISc + Intel)
	2.4: Auger induced trion annihilation in monolayer WS₂ - Suman Chatterjee (ECE, IISc)
	2.5: Understanding photovoltage response of SiO₂-Hbn-Ag based 2D heterostructures towards UV-Vis Photodetectors - Debaleena Majumder (CeNSE, IISc)
	2.6: Advanced Routing Algorithm for Programmable Photonics - Tushar Gaur (ECE, IISc)

	<p>Session 3: Alumni Talks Chair: Kausik Mazumdar (ECE, IISc) Student Organizer: Suman, Abhijith</p>
11:30am-11:40am	<p>3.1: TBD - Jairam Sukumar (Senior Director Technology, Qualcomm India)</p>
11:40am-11:50am	<p>3.2: TBD - Amaresh Kumar Sahu (Assistant Professor, VSSUT Burla)</p>
11:50am-12:00noon	<p>3.3: Electromagnetics and Machine Learning in Package Design - Nikita Ambasana (Silicon Packaging Engineer, Intel India)</p>
12:00noon-14:00pm	BREAK
14:00pm-14:45pm	<p>Session 4: Student Lightning Talks Chair: Debdeep Sarkar (ECE, IISc) Student Organizers: Alok, Anand</p>
	<p>4.1: Computational Electromagnetics in EMI/EMC - A Review - Suguna Sree (ECE, IISc + DEBEL, DRDO)</p>
	<p>4.2: Computational Techniques for Design and Analysis of Time-Varying Capacitor-loaded Transmission Lines - Anand Kumar (ECE, IISc)</p>
	<p>4.3: Creating Secure Cyber-Physical Systems in Post-Quantum Era - Sindhuja Rao (ECE, IISc)</p>
	<p>4.4: Electrostatic solver and Scattering problems using Method of moments - Akash (ECE, IISc)</p>
	<p>4.5: Wireless Power Transfer Efficiency Enhancement Using Parasitic Patch Near a Circular Polarized Receiver for IMDs - Alok Chandra Joshi (ECE, IISc)</p>
	<p>4.6: FMCW Radar-on-Chip based Through-Wall Imaging - Easha (ECE, IISc)</p>
	<p>4.7: Computer Simulation of Material and Geometric Uncertainties in Electromagnetics -Abhijith B N (ECE, IISc)</p>
	<p>Session 5: Invited Talks Chair: Varun Raghunathan (ECE, IISc) Student Organizers: Jyothsna, Tushar</p>
14:45pm-15:15pm	<p>5.1: Point-of-Care Bio-sensing Technology - Vinay Kumar Chauhan (Co-Founder, CEO and Head of R&D, PathShodh Healthcare Pvt. Ltd.)</p>
15:15pm-15:45pm	<p>5.2: The Finite Integration Technique and its application to hybrid and multiphysics problems - Peter Thoma (Professor, Frankfurt University, Germany)</p>
15:45pm-16:00pm	BREAK

	Session 6: Alumni Talks Chair: Gaurab Banerjee (ECE, IISc) Student Organizer: Sumit, Easha
16:00pm-16:10pm	6.1: TBD - Ajay Kochar (Associate Staff Engineer, Samsung Semiconductors India)
16:10pm-16:20pm	6.2: Microwave Sensors for The Real-Time Label-Free Glucose Monitoring - Poonam Agarwal (Assistant Professor, JNU India)
16:20pm-16:30pm	6.3: Machine Learning-based Multi-resolution Algorithm for Inverse EM solution towards Breast Cancer Detection - Sudarshan Nayak (MSCS, Penn State USA)
	Session 7: Invited Talks Chair: T Srinivas (ECE, IISc) Student Organizers: Tushar, Suman
16:30pm-17:00pm	7.1: Challenges and opportunities in RF Characterization of Next Generation High Throughput Satellites - Puneet Kumar Mishra (Scientist, U R Rao Satellite Centre)
17:00pm-17:30pm	7.2: High Power Microwaves - D. V. Giri (Life Fellow, IEEE)
17:30pm-17:45pm	BREAK
17:45pm-19:00pm	Inauguration of AP-MTT Student Chapter Chair: K J Vinoy (ECE, IISc) Student Organizer: Anand, Easha
17:45pm-17:55pm	K J Vinoy (Chair, ECE, IISc)
17:55pm-18:30pm	Goutam Chattopadhyay (Chair, IEEE MTT-S MGA Committee)- <i>Inaugural Lecture</i>
18:30pm-18:40pm	Anandi Giridharan (Chapter Counsellor; Chair, IEEE SIGHT Bangalore Section; Vice-Chair, IEEE HAC India Council)
18:40pm-18:50pm	Debdeep Sarkar (Chapter Advisor; Chair, IEEE Bengaluru YP)
18:50pm-19:00pm	Puneet Kumar Mishra (Chair, AP/MTT Chapter, IEEE Bangalore Section)