EECS, IISc RESEARCH STUDENTS SYMPOSIUM - 2021

Date: 7th and 8th May (Online)

May 7th 2021 (Friday)

08:55pm-09:00am	**Inauguration – Y. Narahari**
09:00am-10:00am	**Session 1: Plenary-1: Computational Epidemiology: Challenges and Opportunities** **Madhav Marathe, University of Virginia, USA** **Chair: Mahesh Mehendale, Texas Instruments and Adjunct Professor, IISc** **Student Organizer: Dhanaprakaash G. (RBCCPS)** **Faculty Organizer: Vaibhav Katewa (RBCCPS)** **Faculty Coordinator: Y. Narahari (CSA)**
10:00am-10:15am	**BREAK**
10:15am-12:45pm	**Session 2: Faculty Talks** **Chair: K. J. Vinoy (ECE)** **Student Organizer: Aditya Rastogi (CDS)** **Faculty Organizer: Rahul Saladi (CSA)**
	1.1: Towards fast and accurate exascale quantum-mechanical calculations for material modelling using finite-element discretization and mixed-precision arithmetic - Phani Motamarri (CDS)
	1.2: Computational integrity: succinct proofs in cryptography - Chaya Ganesh (CSA)
	1.3: Graph Neural Networks - Sundeep Prabhakar Chepuri (ECE)
	1.4: An Approach Towards an Extreme Fast Charging Station Architecture for Electric Vehicles - Vishnu Mahadeva Iyer (EE)
	1.5: Integrated Sensor Systems - Arup Polley (ESE)
	1.6: Data-Augmented Control of Visual Autonomous Systems - Jishnu Keshavan (RBCCPS)
12:45pm-13:30pm	**BREAK**

13:30pm-16:30pm	**Session 3A: AI & Machine Learning** **Cluster Coordinator: Chiranjib Bhattacharyya (CSA) and Aditya Gopalan (ECE)** **Chair: Chiranjib Bhattacharyya (CSA) and A. G. Ramakrishnan (EE)** **Student Organizer: Varun Krishna (EE)** **Student Backup: Dhanaprakaash G (RBCCPS)** **Faculty Organizer: Konduri Aditya (CDS)**
	3A.1: Student Presentation 1 (13:30pm-13:42pm) (Pre-recorded + 2 min live Q&A) - Ramakrishnan K (CSA): Optimal Algorithms for Range Searching over Multi-Armed Bandits
	3A.2: Student Presentation 2 (13:42pm-13:54pm) (Pre-recorded + 2min live Q&A) - Amrutha Machireddy (ESE): Learning non-linear mappings from data with applications to priority-based clustering, adaptive prediction and detection.
	3A.3: Student Presentation 3 (13:54pm-14:06pm) (Pre-recorded + 2min live Q&A) - Deep Patel (EE): Adaptive Sample Selection for Robust Learning under Label Noise
	3A.4: Student Presentation 4 (14:06pm-14:18pm) (Pre-recorded + 2min live Q&A) - Rameesh Paul (CSA): Independent Sets in Semi-random Hypergraphs
	3A.5: Student Presentation 5 (14:18pm-14:30pm) (Pre-recorded + 2min live Q&A) - Shubham Gupta (CSA): A provably optimal algorithm for finding fair communities
	3A.6: Invited Talk 1 (14:30pm-15:00pm) (Live) **- Sunita Sarawagi (IIT Bombay): TBD**
	3A.7: Invited Talk 2 (15:00pm-15:30pm) (Live) **- Prateek Jain (Google): Stochastic Gradient Descent: Marrying Theory with Practice**
	3A.8: Student Presentation 6 (15:30pm-15:42pm) (Pre-recorded + 2min live Q&A) - Anoop C S (EE): ASR in Low-resource Languages Using Domain Adaptation Approaches
	3A.9: Student Presentation 7 (15:42pm-15:54pm) (Pre-recorded + 2min live Q&A) - Prachi Singh (EE): Speaker Diarization for conversational speech using graph clustering
	3A.10: Student Presentation 8 (15:54pm-16:06pm) (Pre-recorded + 2min live Q&A) - Shreyas Ramoji (EE): Neural PLDA Modeling for End-to-End Automatic Speaker Verification
	3A.11: Student Presentation 9 (16:06pm-16:18pm) (Pre-recorded + 2min live Q&A) - Devyani Lambhate (CDS): Simultaneous Identification of Gulf Stream and Rings from Concurrent Satellite Images of Sea Surface Temperature and Height Images
	3A.12: Student Presentation 10 (16:18pm-16:30pm) (Pre-recorded + 2min live Q&A) - Pradeep K G (EE): Functional Connectivity based EEG Biometrics
	3A.13: Student Presentation 11 (16:30pm-16:42pm) (Pre-recorded + 2min live Q&A) - Ritika Jain (EE): Reliable sleep stage classification method using multiple EEG features and RUSBoost technique
	3A.14: Presentation 12 Post Doctoral (16:42pm-16:54pm) (Pre-recorded + 2min live Q&A) - Srikanth Raj Chetupalli (EE): Automatic speech recognition for speech conversations

Session 3B: Nanodevices, VLSI Circuits and Microsystems-1
Cluster Coordinator: Mayank Shrivastava (ESE)
Chair: Mayank Shrivastava (ESE) and Dipanjan Gope (ECE)
Student Organizer: Alok Joshi (ECE)
Student Backup: Tejan Karmali (CDS)
Faculty Organizer: Dipanjan Gope (ECE)

3B.1: Invited Talk 1 (13:30pm-14:00pm) (Live)
- Martin Kuball (University of Bristol, UK): Thermal Management of Electronics and Beyond – GaN & Gallium Oxide

3B.2: Invited Talk 2 (14:00pm-14:30pm) (Live)
- Matteo Meneghini (University of Padua, Italy): GaN Power Transistors & Dynamic-Ron: Challenges & Perspectives

3B.1: Student Presentation 1 (14:30pm-14:40pm) (Pre-recorded)
- Mehak Mahajan (ECE): CDW induced phase transition in layered heterostructures

3B.2: Student Presentation 2 (14:40pm-14:50pm) (Pre-recorded)
- Sarthak Das (EE): Excitons in flatlands

3B.3: Student Presentation 3 (14:50pm-15:00pm) (Pre-recorded)
- Ansh (ESE): Electro-Thermal Stress Induced Material Reconfiguration & Device Perturbations in monolayer 2D-TMD Transistors

3B.4: Presentation 4 – Post-Doctoral Researcher (15:00pm-15:10pm) (Pre-recorded)
- Sanchali Mitra (ESE): Theory of nonvolatile resistive switching in monolayer molybdenum disulfide with passive electrodes

3B.5: Student Presentation 5 (15:10pm-15:20pm) (Pre-recorded)
- Tripti Jain (ESE): Learning-based Classification of magnetic and non-magnetic 2D materials

Q&A Students 1-5 (15:20pm-15:30pm) (Live)

3B.6: Invited Talk 3 (15:30pm-16:00pm) (Live)
- Harald Gossner (Intel Corporation, Germany): Rethink ESD Robustness for Modular Technologies

3B.7: Invited Talk 4 (16:00pm-16:30pm) (Live)
- Yogesh Chauhan (IIT Kanpur): Modeling and Simulation of FinFET and Nanosheet Transistors for Advanced Technology Nodes

	Session 3C: Security & Cryptography **Cluster Coordinator: Himanshu Tyagi (ECE)** **Chair: Himanshu Tyagi (ECE) and Chaya Ganesh (CSA)** **Student Organizer: Prerna Arote (ESE)** **Student Backup: Harini V (RBCCPS)** **Faculty Organizer: Sundeep Chepuri (ECE)**
	3C.1: Student Presentation 1 (13:30pm-13:40pm) (Pre-recorded) - Kripa Shanker (CSA): An Evaluation of Methods to Port Legacy Code to SGX Enclaves
	3C.2: Student Presentation 2 (13:40pm-13:50pm) (Pre-recorded) - Sruthi Sekar (Math/CSA): Non-malleable Codes
	Q&A Students 1-2 (13:50pm-14:00pm) (Live)
	3C.3: Keynote Talk 1 (14:00pm-14:30pm) (Live) **- Kapil Vaswani (Microsoft Research): Confidential Computing – Towards a new contract of data sharing**
	BREAK
	3C.4: Industry Talk 1 (14:40pm-15:00pm) (Live) **- Karthik Rao (CySecK): Introduction to CySecK**
	3C.5: Industry Talk 2 (15:00pm-15:20pm) (Live) **- Arun Babu (Data Kaveri): DataSetu Confidential Data Sharing and Processing Framework**
	3C.6: Student Presentation 3 (15:20pm-15:30pm) (Pre-recorded) - Ajinkya Rajput (CSA): Heap Aware Symbolic Execution for Heap Vulnerability Detection
	3C.7: Student Presentation 4 (15:30pm-15:40pm) (Pre-recorded) - Nilesh Rathi (CSA): Scaling Blockchains Using Coding Theory and Verifiable Computing
	3C.8: Student Presentation 5 (15:40pm-15:50pm) (Pre-recorded) - Ajith S (CSA): MPC for small population with applications to Privacy-Preserving Machine Learning
	Q&A Students 3-5 (15:50pm-16:00pm) (Live)
	3C.10: Keynote Talk 2 (16:00pm-16:30pm) (Live) **- Punkaj Dayana (IBM Research): Trusted Multi-enterprise AI with Blockchain**
16:30pm-17:00pm	**BREAK**

17:00pm-18:00pm	**Session 4: Plenary-2: The Coding Revolutionary** **Lalitesh Katragadda, Indihood** **Chair: Rostow Ravanan, Former CEO, Mindtree** **Student Organizer: Nishchal Hoysal (RBCCPS)** **Faculty Organizer: Vaibhav Katewa (RBCCPS)** **Faculty Coordinator: Y. Narahari (CSA)**
18:00pm-19:00pm	**Session 5: Plenary-3: Multiagent reasoning for social impact** **Milind Tambe, Harvard University and Google Research India** **Chair: Ramesh Hariharan, CTO, Strand Life Sciences** **Student Organizer: Dhanaprakaash G. (RBCCPS)** **Faculty Organizer: Vaibhav Katewa (RBCCPS)** **Faculty Coordinator: Y. Narahari (CSA)**

May 8th 2021 (Saturday)

09:00am-10:00am	**Session 6: Plenary-4: Perceiving and Acting in a 3D World** **Jitendra Malik, University of California, Berkeley and Facebook AI Research** **Chair: Venkat Padmanabhan, Microsoft Research India** **Student Organizer: Nishchal Hoysal (RBCCPS)** **Faculty Organizer: Vaibhav Katewa (RBCCPS)** **Faculty Coordinator: Y. Narahari (CSA)**
10:00am-10:15am	**BREAK**
10:15am-13:15pm	**Session 7A: Visual Analytics** **Cluster Coordinator: Chandra Sekhar Seelamantula (CDS) and Venkatesh Babu (CDS)** **Chair: Soma Biswas (EE) and Venkatesh Babu (CDS)** **Student Organizer: Tejan Karmali (CDS)** **Student Backup: Prerna Arote (ESE)** **Faculty Organizer: Konduri Aditya (CDS)**
	7A.1: Student Presentation 1 (10:15am-10:25am) (Pre-recorded) - Naveen P (CDS): Anamorphic Depth Embedding-Based Lightweight CNN for Segmentation of Anomalies in COVID-19 Chest CT Images
	7A.2: Student Presentation 2 (10:25am-10:35am) (Pre-recorded) - Arindam Dutta (CDS): Towards Deep Robust Deconvolution for Low-Dose Perfusion Computed Tomography
	7A.3: Student Presentation 3 (10:35am-10:45am) (Pre-recorded) - Dhruv Jawali (EE/IMI): Wavelet Design in a learning framework
	7A.4: Student Presentation 4 (10:45am-10:55am) (Pre-recorded) - Jogendra Nath Kundu (CDS): Appearance Consensus Driven Self-Supervised Human Mesh Recovery
	7A.5: Student Presentation 5 (10:55am-11:05am) (Pre-recorded) - Praveen Kumar Pokala (EE): Nonconvex Analysis-Sparse Model — Moreau Envelope Regularization and Projected Proximal Gradient Descent Optimization
	Q&A Students 1-5 (11:05am-11:15am) (Live)
	7A.6: Student Presentation 6 (11:15am-11:25am) (Pre-recorded) - Titir Dutta (EE): Sketch-based Image Retrieval
	7A.7: Student Presentation 7 (11:25am-11:35am) (Pre-recorded) - Utkarsh Gupta (CDS): Siamese-SR: A Siamese Super-Resolution Model for Improved Petrophysical Parameter Estimation in Digital Rock
	7A.8: Student Presentation 8 (11:35am-11:45am) (Pre-recorded) - Vijayalakshmi K (ECE): Revealing Disocclusions in Temporal View Synthesis
	7A.9: Student Presentation 9 (11:45am-11:55am) (Pre-recorded)

- Vinayak Killedar (EE): Sparsity Driven Latent Space Sampling for Generative Prior based Compressive Sensing
7A.10: Student Presentation 10 (11:55am-12:05pm) (Pre-recorded)
- Jitendra Kumar Dhiman (EE): There is More to a Spectrogram Than Meets the Eye!
Q&A Students 6-10 (12:05pm-12:15pm) (Live)
7A.11: Invited Talk 1 (12:15pm-12:45pm) (Live):
- Mohan Kankanhalli (NUS Singapore): Privacy-aware Analytics for Human Attributes from Images
7A.12: Invited Talk 2 (12:45pm-13:15pm) (Live):
- Jayavardhana Gubbi (TCS Research): Machine Vision in Industrial Automation
Session 7B: Nanodevices, VLSI Circuits and Microsystems-2
Cluster Coordinator: Mayank Shrivastava (ESE)
Chair: Varun Raghunathan (ECE) and Chetan Singh Thakur (ESE)
Student Organizer: Alok Joshi (ECE)
Student Backup: Dhanaprakaash G (RBCCPS)
Faculty Organizer: Dipanjan Gope (ECE)
7B.1: Invited Talk 1 (10:15pm-10:45pm) (Live):
- Siddharth Tallur (IIT Bombay): Microsystems for structural health monitoring
7B.2: Student Presentation 1 (10:45am-10:55am) (Pre-recorded)
- Sayak Dutta Gupta (ESE): Novel p-type AlTiO Gate Oxide e-mode Operation in AlGaN/GaN HEMTs: 600V Technology with Record High Performance
7B.3: Student Presentation 2 (10:55am-11:05am) (Pre-recorded)
- Ankit Son (ESE): GaN Heterostructure Based Schottky Barrier Diodes for Power and THz Applications
7B.4: Student Presentation 3 (11:05am-11:15am) (Pre-recorded)
- Rajarshi Roy Chaudhuri (ESE): Unique Reliability Phenomena in AlGaN/GaN HEMTs
7B.5: Student Presentation 4 (11:15am-11:25am) (Pre-recorded)
- Jayanta Deka (ECE): Nonlinear light generation in guided mode resonant metasurfaces
7B.6: Student Presentation 5 (11:25am-11:35am) (Pre-recorded)
- Sruti Menon (ECE): Medium refractive index contrast sub-wavelength dielectric structures for nonlinear optics and sensing application
7B.7: Student Presentation 6 (11:35am-11:45am) (Pre-recorded)
- Alekya B (ESE): Sensor Integrated Intubation Catheter for Characterizing Airflow Patterns in Tracheal Stenosis
7B.8: Student Presentation 7 (11:45am-11:55am) (Pre-recorded)
- Anil Vishnu G K (ESE): A portable MEMS-based platform for the electro-thermal phenotyping of breast biopsy tissues
7B.10: Student Presentation 9 (11:55pm-12:05pm) (Pre-recorded)
- Sitaramgupta V S N V (ESE): MEMS Force Sensor for Cardiac Ablation Catheters
7B.11: Student Presentation 10 (12:05pm-12:15pm) (Pre-recorded)

- Uttam Pal (ESE): Multimodal Opto-Thermo-Acoustic (OTA) Technique to Differentiate Cancer from Adjacent Normal Breast Biopsy Tissues

7B.12: Student Presentation 11 (12:15pm-12:25pm) (Pre-recorded)
- Vaidya Girish Bhagwan (ESE): Towards unique device identification using Physically Unclonable Functions

Q&A Students 1-11 (12:25pm-12:40pm) (Live)

7B.14: Invited Talk 2 (12:40pm-13:10pm) (Live):
- Siddharth Tallur (NUS Singapore): Microsystems for structural health monitoring

Session 7C: Signal Processing and Communications
Cluster Coordinator: Neelesh Mehta (ECE)
Chair: Neelesh Mehta (ECE) and Srikrishna Bhashyam (IIT Madras)
Student Organizer: Anand Kumar (ECE)
Student Backup: Tutan Debnath (ESE)
Faculty Organizer: Sundeep Chepuri (ECE)

7C.1: Student Presentation 1 (10:15am-10:26am) (Pre-recorded + 1min Q&A live)
- Deepchand Meshineni (EE): Vital signs Monitoring using FMCW radar

7C.2: Student Presentation 2 (10:26am-10:37am) (Pre-recorded + 1min Q&A live)
- Bala Venkta Ramulu Gorantla (ECE): Resource allocation with limited feedback overhead for underlay D2D networks

7C.3: Student Presentation 3 (10:37am-10:48am) (Pre-recorded + 1min Q&A live)
- Shubham Sharma (ECE): Design of k-space trajectories for reducing scan time in MRI system

7C.4: Student Presentation 4 (10:48am-10:59am) (Pre-recorded + 1min Q&A live)
- Vinay Kumar B R (ECE): Probabilistic Forwarding with Coding for Network-wide Broadcast

7C.5: Student Presentation 5 (10:59 am-11:10am) (Pre-recorded + 1min Q&A live)
- Deekshith (ECE): Second-order Rate Bounds for a Block Fading Channel Powered by an Energy Harvesting Transmitter

7C.6: Invited Talk 1 (11:10am-11:40am) (Live):
- Ajit Rawade (IIT Bombay): Pooled testing for COVID19 samples

7C.7: Student Presentation 7 (11:40am-11:51pm) (Pre-recorded + 1min Q&A live)
- Govindu Saikesava (ECE): MCS selection algorithms for URLLC IN 5G

7C.8: Student Presentation 8 (11:51pm-12:02pm) (Pre-recorded + 1min Q&A live)
- Vinayak Ramkumar (ECE): Streaming Codes for Reliable, Low-Latency Communication

7C.9: Student Presentation 9 (12:02pm-12:13pm) (Pre-recorded + 1min Q&A live)
- Rama Kiran (ECE): Design of Reduced Feedback Scheme, User Scheduling, and MAC protocols for Full-Duplex Communication Systems

7C.10: Student Presentation 10 (12:13pm-12:24pm) (Pre-recorded + 1min Q&A live)
- Ram Kumar (ECE): Scheduling and Power Control for Wireless Multicast Systems via Deep Reinforcement Learning

7C.11: Invited Talk 2 (12:25pm-13:00pm) (Live):
- Adrian Sharples (British Telecom): Beyond the 5G Launch: The Future of Personal Communications

	Session 7D: Computer Systems **Cluster Coordinator: Matthew Jacob (CSA) and Jayant Haritsa (CDS/CSA)** **Chair: K V Raghavan (CSA); Student Presentation Judge: Karthik Ramachandra (MSRI) and Jayant Haritsa (CDS/CSA)** **Student Organizer: Rameesh Paul (CSA)** **Student Backup: Nishchal Hoysal (RBCCPS)** **Faculty Organizer: Rahul Saladi (CSA)**
	7D.1: Invited Talk 1 (10:15am-11:15am) (Live): - **Suparna Bhattacharyya (Hewlett-Packard Enterprise):** The Silent Learner and the Oblivious Teacher - Meaning Aware Storage for AI
	7D.2: Invited Talk 2 (11:15am-12:15pm) (Live): - **C. Pandu Rangan (IIT Madras):** Impossible Trinities and Blockchain Trilemma
	7D.3: Student Presentation 1 (12:15pm-12:27pm) (Pre-recorded 10 min + 2 min live Q&A) - Aakash Khochare (CDS): Algorithms for Co-scheduling of Edge Analytics and Routes for UAV Fleet Missions
	7D.4: Student Presentation 2 (12:27pm-12:39pm) (Pre-recorded 10 min + 2 min live Q&A) - Devyani Gupta (ESE): Optimal Link Capacity Selection and Edge Server Placement using Column Generation
	7D.5: Student Presentation 3 (12:39pm-12:51pm) (Pre-recorded 10 min + 2 min live Q&A) - Geetam Chawla (CSA): Automatically finding bugs in web applications
	7D.6: Student Presentation 4 (12:51pm-13:03pm) (Pre-recorded 10 min + 2 min live Q&A) - Ramakant Joshi (ESE): Hardware Accelerator for Particle Transport Simulation
13:15pm-14:00pm	**BREAK**
14:00pm-17:00pm	**Session 8A: Cyber-Physical Systems** **Cluster Coordinator: Bharadwaj Amrutur (RBCCPS)** **Chair: Vaibhav Katewa (ECE/RBCCPS), Shishir N. Y. Kolathaya (CSA/RBCCPS)** **Student Organizer: Dhanaprakaash G. (RBCCPS)** **Student Backup: Prerna Arote (ESE)** **Faculty Organizer: Vaibhav Katewa (RBCCPS)**
	8A.1: Invited Talk 1 (14:00pm-14:30pm) (Live): - **Henning Sanneck (Nokia Strategy and Technology, Germany): Cognitive Network Management in Mobile Cyber-Physical Systems**
	8A.2: Invited Talk 2 (14:30pm-15:00pm) (Live): - **Amith Singhee (IBM Research, India): AI and Hybrid Cloud**
	8A.3: Invited Talk 3 (15:00pm-15:45pm) (Live): - **Pavithra Prabhakar (Kansas State University, USA): Abstractions for Scalable Verification of AI-Controlled Cyber-Physical Systems**
	8A.4: Student Presentation 1 (15:45pm-16:00 pm) (Pre-recorded followed by Live Q&A) - Chatan Kumar K (ECE): Power System Safety and Security

8A.5: Student Presentation 2 (16:00pm-16:15 pm) (Pre-recorded followed by Live Q&A) - Rooji Jinan (RBCCPS): Tracking an AR(1) process with limited communication/ Latency optimal replication codes for memory constrained servers
8A.6: Student Presentation 3 (16:15pm-16:30pm) (Pre-recorded followed by Live Q&A) - Sagar G V (ECE): Translating Natural Language Instructions to Computer Programs for Robot Manipulation
8A.7: Student Presentation 4 (16:30pm-16:45pm) (Pre-recorded followed by Live Q&A) - Saraswathy Ramanathan (ECE): Latency Redundancy Tradeoff in Distributed Read-Write Systems
Session 8B: Power Engineering **Cluster Coordinator: Kaushik Basu (EE)** **Chair: Kaushik Basu (EE)** **Student Organizer: Harini V (RBCCPS)** **Student Backup: Aniruddh S (RBCCPS)** **Faculty Organizer: Dipanjan Gope (EE)**
8B.1: Keynote Talk (14:00pm-14:30pm) (Live): **- Vivek Agarwal (IIT Bombay): Realizing Multilevel Inverter Properties by Cascading Switched Capacitor Networks with Two Level Inverters**
8B.2: Industry Talk 1 (14:30pm-14:55pm) (Live): **- Ranganathan Gurunathan (Bloom Energy): Fuel Cell and its applications in Power**
8B.3: Invited Talk 2 (14:55pm-15:20pm) (Live): **- Shailesh Ghotgalkar (Texas Instruments): Digital power control in emerging industrial and automotive applications**
8B.4: Inspire Faculty Talk (15:20pm-15:40pm) (Live): **- Utsab Kundu (EE): An Overview of Power Management in Server Application**
8B.5: Student Presentation 1 (15:40pm-15:50pm) (Pre-recorded) - Rupam Pal (EE): Influence of soil's electrical parameters on lightning stroke-current evolution
8B.6: Student Presentation 2 (15:50pm-16:00pm) (Pre-recorded) - Shamibrota Kishore Roy (EE): Characterization and Modelling of Switching Dynamics of SiC MOSFET
8B.7: Student Presentation 3 (16:00pm-16:10pm) (Pre-recorded) - Tanmay Mishra (EE): Generalized Source emulation approach on micro-alternator
Q&A Students 1-4 (16:10pm-16:20pm) (Live)
8B.8: Student Presentation 4 (16:20pm-16:30pm) (Pre-recorded) - Kamisetti N V Prasad (EE): Design Of Active Magnetic Bearing
8B.9: Student Presentation 5 (16:30pm-16:40pm) (Pre-recorded) - Kiran Kumar Challa (EE): An Algorithm for Fitting Passive Equivalent Circuits for Lumped Parameter Frequency Dependent Transmission Line models
8B.10: Student Presentation 6 (16:40pm-16:50pm) (Pre-recorded) - Meenu Jayamohan (EE): Impact Of Inverter Based Generation On Transmission Protection

	8B.11: Student Presentation 7 (16:50pm-17:00pm) (Pre-recorded) - Nakul Narayanan K (ESE): Switched Capacitor Converters for High Power Applications
	Q&A Students 4-7 (17:00pm-17:10pm) (Live)
	Session 8C: Brain, Computation and Data **Cluster Coordinator: Prasanta Ghosh (EE) and P. S. Sastry (EE)** **Chair: P. S. Sastry (EE) and Sreedharan Devarajan (CNS)** **Student Organizer: Nishchal Hoysal (RBCCPS)** **Student Backup: Anand Kumar (EE)** **Faculty Organizer: Sriram Ganapathy (EE)**
	8C.1: Invited Talk 1 (14:00pm-14:30pm) (Live): **- Suvarna Alladi (NIMHANS): Brain connectivity in health and disease: Joining the dots towards a multidisciplinary approach**
	8C.2: Industry Talk 2 (14:30pm-15:00pm) (Live): **- Gurpreet Singh Kalsi (Intel Labs India): Look-Up Table based Energy Efficient Processing in Cache Support for Neural Network Acceleration**
	8C.3: Open Discussion (15:00pm-15:30pm) (Live): **- Moderator: P. S. Sastry**
	8C.4: Student Presentation 1 (15:30pm-15:40pm) (Pre-recorded) - Aditya Rastogi (CDS): Model based deep learning architecture for generalized p-norm regularization
	8C.5: Student Presentation 2 (15:40pm-15:50pm) (Pre-recorded) - Georgin Jacob (ECE): Do deep networks see the way we do?
	8C.6: Student Presentation 3 (15:50pm-16:00pm) (Pre-recorded) - Jaswanth Reddy Katthi (EE): Deep Learning Methods For Audio EEG Analysis
	8C.7: Student Presentation 4 (16:00pm-16:10pm) (Pre-recorded) - Jerrin, Thomas Panachakel (EE): Decoding Imagined Speech from EEG using Transfer Learning
	8C.8: Student Presentation 5 (16:10pm-16:20pm) (Pre-recorded) - Rathin Joshi (ESE): Neonatal Hearing Screening Headband extracting Brainstem and Cortical Response
	Q&A Students 1-5 (16:20pm-16:30pm) (Live)
	8C.9: Invited Talk 3 (16:30pm-17:00pm) (Live): **- Neeraj Sharma (EE): Language familiarity impacts talker perception**
	Session 8D: Computational Sciences **Cluster Coordinator: Sashikumaar Ganesan (CDS)** **Chair: Sashikumar Ganesan (CDS) and Koteswara Rao Sunkara (ITC Ltd)** **Student Organizer: Tutan Debnath (ESE)** **Student Backup: Himanshu Bhusan (EE)** **Faculty Organizer: Ramachandran Ponnuswamy (ESE)**

	8D.1: Keynote Talk 1 (14:00pm-14:30pm) (Live): **- Giridhara R Babu (PHFI): Role of data in public health response against covid19**
	8D.2: Keynote Talk 2 (14:30pm-15:00pm) (Live): **- Deepak Subramani (CDS): Spatio-temporal Prediction of Epidemic Spread: Data, Models and Ensembles**
	8D.3: Keynote Talk 3 (15:00pm-15:30pm) (Live): **- Gautam Menon (Ashoka University): Designing Optimal Vaccination Policies for COVID-19**
	8D.4: Keynote Talk 4 (15:30pm-16:00pm) (Live): **- Ani Vullikanti (Virginia Tech): Designing interventions in networked models of epidemic spread**
	8D.5: Student Presentation 1 (16:00pm-16:10pm) (Pre-recorded) - Amrita Namtirtha (CDS): Best influential spreaders identification using network global structural properties
	8D.6: Student Presentation 2 (16:10pm-16:20pm) (Pre-recorded) - Tushar Sakorikar (ESE): Modelling of electrical transport in biological tissues
	8D.7: Presentation 3 Post-Doctoral Researcher (16:20pm-16:30pm) (Pre-recorded) - Subodh Madhav Joshi (CDS): Sensitivity analysis of ANNs for fluid flow simulation
	8D.8: Student Presentation 4 (16:30pm-16:40pm) (Pre-recorded) - Abhijith B N (ECE): Estimation of stochastic responses due to multiple variabilities in electromagnetic finite element modelling
	8D.9: Student Presentation 5 (16:40pm-16:50pm) (Pre-recorded) - Harikiran Muniganti (ECE): Inverse Problems in 3D Full-Wave Electromagnetics
	8D.10: Student Presentation 6 (16:50pm-17:00pm) (Pre-recorded) - Raghavendra GS (CSA): Comparative Analysis of Topological Structures
	8D.11: Student Presentation 7 (17:00pm-17:10pm) (Pre-recorded) - Sangeeta Yadav (CDS): SPDE-Net: Predict an optimal stabilization parameter for SUPG technique to solve Singularly Perturbed PDEs
	8D.12: Student Presentation 8 (17:10pm-17:20pm) (Pre-recorded) - Vinod J. Matthew (CDS): Scalable Asynchrony-Tolerant PDE Solver for Multi-GPU Systems
	Q&A Students 1-8 (17:20pm-17:30pm) (Live)
17:00pm-17:30pm	**BREAK**

17:30pm-19:00pm	FELICITATION PROFESSOR P. VIJAY KUMAR (ECE) PROFESSOR Y. N. SRIKANT (CSA) PROFESSOR K. GOPINATH (CSA)
19:00pm-19:10pm	**Best Paper in Session Awards** **Vote of Thanks**

Useful Links:

1. **ALL VIDEOS:** https://drive.google.com/drive/folders/10oWG9jjQzXcY03P0y1YpJROxbn22xDcO?usp=sharing
   You can find a folder for your session here.

2. **Links to sessions:** In case of any issues, contact Nishchal (nishchalg@iisc.ac.in, 9741575738) or Dhanaprakash (dhanaprakaas@iisc.ac.in, 9788756233)

Friday 7th May 2021:

Session	Time	Link
Inauguration + **S1: Plenary-1** **Madhav Marathe**	**08:55am-10:00am**	**https://zoom.us/j/98101873619?pwd=L1BwSzdaWDkwVVE1SkR1aldyd3pVUT09**
S2: Faculty Talks	**10:15am-12:45pm**	**https://zoom.us/j/98101873619?pwd=L1BwSzdaWDkwVVE1SkR1aldyd3pVUT09**
S3A: Cluster Session **AI & Machine Learning**	**13:30pm-16:30pm**	**https://zoom.us/j/92621019038?pwd=UjlFTktnYUN0TW91RjFFZ28zL0dOUT09**
S3B: Cluster Session **Nanodevices, VLSI Circuits and Microsystems-1**	**13:30pm-16:30pm**	**https://zoom.us/j/92483576858?pwd=N2lDMmNQd3NNb28yUExtTG5KOFBwZz09**
S3C: Cluster Session **Security and Cryptography**	**13:30pm-16:30pm**	**https://zoom.us/j/98206839356?pwd=bEJNK1ZCWkFXcEI2bFp5Tm03UkdYZz09**
S4: Plenary-2 **Lalitesh Katragadda**	**17:00pm-18:00pm**	**https://zoom.us/j/98101873619?pwd=L1BwSzdaWDkwVVE1SkR1aldyd3pVUT09**
S5: Plenary-3 **Milind Tambe**	**18:00pm-19:00pm**	**https://zoom.us/j/98101873619?pwd=L1BwSzdaWDkwVVE1SkR1aldyd3pVUT09**

Saturday 8th May 2021:

Session	Time	Link
S6: Plenary-4 **Jitendra Malik**	09:00am- 10:00am	https://zoom.us/j/98101873619?pwd=L1BwSzdaWDkwVVE1SkR1aldyd3pVUT09
S7A: Cluster Session **Visual Analytics**	10:15am- 13:15pm	https://zoom.us/j/98253612841?pwd=VUdhaHlieUlhUjFIOHBLdEFHc3pMQT09
S7B: Cluster Session **Nanodevices, VLSI Circuits and Microsystems-2**	10:15am- 13:15pm	https://zoom.us/j/99921926316?pwd=QnJ3VzcwTEVhZmhIajN2bUMwcWQrdz09
S7C: Cluster Session **Signal Processing and Communications**	10:15am- 13:15pm	https://zoom.us/j/99751927767?pwd=Q054OW9NeDhXUGdlUVJHam1Pa2dBQT09
S7D: Cluster Session **Computer Systems**	10:15am- 13:15pm	https://zoom.us/j/94629021071?pwd=alBhSGVLN3AveUdUUHBDWGpsWVg3Zz09
S8A: Cluster Session **Cyber-Physical Systems**	14:00pm- 17:00pm	https://zoom.us/j/97419548678?pwd=WUQvU3pDOU5KZUVmUHE4SWp4ZmovZz09
S8B: Cluster Session **Power Engineering**	14:00pm- 17:00pm	https://zoom.us/j/97532349336?pwd=eXV3WTFpM2FpVVRMNWZHRXN1RTIxUT09
S8C: Cluster Session **Brain, Computation and Data**	14:00pm- 17:00pm	https://zoom.us/j/97514423936?pwd=UksyWDhhd210dTYySHF0bnB2S2RWUT09
S8D: Cluster Session **Computational Sciences**	14:00pm- 17:00pm	https://zoom.us/j/93578321805?pwd=azBncWp2TWhmYXRaeXJjTW5SekhYZz09
Felicitation **Prof. P. V. Kumar; Prof. K. Gopinath; Prof. Y. N. Srikant** **Awards; Vote of Thanks**	17:30pm- 19:00pm	https://zoom.us/j/98101873619?pwd=L1BwSzdaWDkwVVE1SkR1aldyd3pVUT09

EECS RESEARCH STUDENTS SYMPOSIUM – 2021
AT A GLANCE

May 7th (Friday)

09:00am-10:00am		10:15am-12:45pm		13:30pm-16:30pm	17:00pm-18:00pm	18:00pm-19:00pm
S1: Plenary-1 Madhav Marathe		**S2: Faculty Talks** Phani Motamarri Chaya Ganesh Sundeep Chepuri Vishnu Mahadev Iyer Arup Polley Jishnu Keshavan		**S3A: Cluster Session** AI & Machine Learning **S3B: Cluster Session** Nanodevices, VLSI Circuits and Microsystems-1 **S3C: Cluster Session** Security and Cryptography	**S4: Plenary-2** Lalitesh Katragadda	**S5: Plenary-3** Milind Tambe

May 8th (Saturday)

09:00am-10:00am		10:15am-13:15pm		14:00pm-17:00pm		17:30pm-19:00pm
S6: Plenary-4 Jitendra Malik		**S7A: Cluster Session** Visual Analytics **S7B: Cluster Session** Nanodevices, VLSI Circuits and Microsystems-2 **S7C: Cluster Session** Signal Processing and Communications **S7D: Cluster Session** Computer Systems		**S8A: Cluster Session** Cyber-Physical Systems **S8B: Cluster Session** Power Engineering **S8C: Cluster Session** Brain, Computation and Data **S8D: Cluster Session** Computational Sciences		**Felicitation** Prof. P. V. Kumar Prof. K. Gopinath Prof. Y. N. Srikant Awards Vote of Thanks

THANK YOU