

Research Conclave 2026
"Advancing Semiconductor Design, Assembly, Testing and Packaging in
Southeast Asia"
(ASDAT-2026)

25–26 September 2026
Assam Don Bosco University, Azara Campus, Guwahati, Assam

DAY 1 – 25 September 2026 (Friday)

Time	Programme		
8:00–9:00	Registration		
9:00–10:00	Inauguration <i>(Venue - Old Conference Hall)</i> <u>Chief Guest</u> Narayan Konwar, IAS Commissioner and Secretary to the Govt. of Assam Department of Higher Education		
10:00–10:30	High-Tea <i>(Venue – Quadrangle)</i>		
10:30–11:30	Plenary Talk - 1 <i>(Venue - New Conference Hall)</i> <u>Speaker</u> Prof. Cher Ming Tan, CReST, Chung Gung University, Taiwan		
11:30–12:30	Panel Discussion - 1 <i>(Venue - New Conference Hall)</i> <u>Topic:</u> Strengthening The Semiconductor Value Chain in Southeast Asia : From Design to Packaging <u>Panelists</u> Prof. Cher Ming Tan, Chung Gung University, Taiwan (Moderator) Prof. Kuan Yew Cheong, University of Science, Malaysia Prof. Mayank Shrivastava, IISc Bangalore Dr. Jitesh Choudhary, Director, C-DAC		
12:30-12:45	Semiconductor Product Presentation <i>(Venue – New Conference Hall)</i> (Corel Technology)		
12:45–13:30	Special Session <u>Topic</u> - Semiconductor Manpower Development <i>(Venue – New Conference Hall)</i> <u>Speakers</u> Prof. Mayank Shrivastava & Ms. Jully Yadav, IISc Bangalore	Technical Session – A (Online) <i>(Venue – Room No. 414)</i> <u>Session Chairs</u> Dr. Arun Jana, C-DAC Dr. Julaiba Tahsina Mazumder Assam Skill University	Technical Session – B (Offline) <i>(Venue - Old Conference Hall)</i> <u>Session Chairs</u> Dr. Kaustubh Bhattacharyya, Assam Skill University Dr. Anjan Kumar Talukdar, Gauhati University
13:30–14:30	Lunch <i>(Venue – Quadrangle)</i>		

14:30–15:30	Panel Discussion - 2 (Venue - New Conference Hall) <u>Topic:</u> Academia, Industry, Government Synergy: Building a Sustainable Semiconductor Workforce <u>Panelists</u> Prof. Kuan Yew Cheong, University of Science, Malaysia (Moderator) Prof. Rashi Borgohain, Assam Engineering College Mr. Prashant G., Corel Technologies Dr. Bhubon Chandra Mech, Defence Institute of Advanced Technology & PNSSys Labs
15:30–16:30	Plenary Talk – 2 (Venue – New Conference Hall) <u>Speaker</u> Prof. Madhavan Swaminathan, The Pennsylvania State University, USA
16:30-16:45	Tea

DAY 2 – 26 September 2026 (Saturday)

Time	Programme	
8:30–10:00	Technical Session – C (Online) (Venue – Room No. 414) <u>Session Chairs</u> Dr. Himangshu Jyoti Gogoi, Assam Skill University Dr. Lau Chit Siong Aaron, A*STAR Quantum Technology, Singapore	Technical Session – D (Offline) (Venue - Old Conference Hall) <u>Session Chairs</u> Dr. Subhankar Majumdar, NIT Meghalaya Dr. Sanchali Mitra, Singapore Univ. of Tech & Design
10:00–10:30	High-Tea (Venue – Quadrangle)	
10:30–11:30	Plenary Talk – 3 (Venue – New Conference Hall) <u>Speaker</u> Prof. Kuan Yew Cheong, University Sains Malaysia, Malaysia	
11:30 -11:45	Semiconductor Product Presentation (Venue – New Conference Hall) (Tirame Technology)	
11:45–12:45	Panel Discussion – 3 (Venue – New Conference Hall) Topic - Emerging Trends and Innovations in Semiconductor Technologies <u>Panelists</u> Prof. Sunandan Baruah, Assam Skill University (Moderator) Prof. Gaurav Trivedi, Indian Institute of Technology, Guwahati Dr. Lung-Jieh Yang, Taiwan Economic and Cultural Centre Dr. Sanchali Mitra, Singapore University of Technology and Design	

12:45–13:45	Plenary Talk – 4 <i>(Venue – New Conference Hall)</i> <u>Speaker</u> Mr. Chee-How Tan <i>Vice President, Infineon, Taiwan</i>	
13:45–14:45	Lunch <i>(Venue – Quadrangle)</i>	
14:45–15:45	Panel Discussion – 4 <i>(Venue – New Conference Hall)</i> Topic – Policy, Investment, and Infrastructure: Enabling Semiconductor Growth in Emerging Economies <u>Panelists</u> Dr. Sanchali Mitra, Singapore University of Technology and Design (Moderator) Prof. Cher Ming Tan, Chung Gung University Prof. Kuan Yew Cheong, University of Science, Malaysia Dr. Bhubon Chandra Mech, Defence Institute of Advanced Technology & PNSSys Labs	
15:45–17:00	Technical Session – E (Online) <i>(Venue – Room No. 414)</i> <u>Session Chairs</u> Dr. Alak Majumdar, <i>NIT Arunachal Pradesh</i> Dr. Sabyasachi Bhattacharyya <i>Assam Engineering College</i>	Technical Session – D (Offline) <i>(Venue - Old Conference Hall)</i> <u>Session Chairs</u> Dr. Kumaresh Sarmah, <i>Gauhati University</i> Mr. Manash Pratim Sarma <i>Gauhati University</i>
17:00-17:30	Concluding Session <i>(New Conference Hall)</i>	
17:30–18:00	Tea	

Technical Session – A

(Online)

(Date – 25th September 2026, Time - 12:45 to 13:30)

(Venue – Room No. 414)

(Meeting Link - <https://meet.google.com/xrh-dfgh-mgh>)

Paper ID	Paper Title	Presenter Name
3	A BiLSTM Neural Network Technique for Early Prediction of Parkinson's Disease	Ashwini Sharma
11	Deep Learning-Based Energy Optimization for Wireless Sensor Networks	Bhavna Kaurav
12	Developing an Advanced Machine Learning Model for Image Processing Technique	Priya Singh
13	Advanced Deep Learning Model for Diabetic Retinopathy Detection and Classification	Shikha Methil
26	Quantitative Analysis of Conjugate Heat Transference and Nanofluid Flow in Microchannel Heat Sinks for Advanced Semiconductor Thermal Packaging	Jintu Mani Nath

Technical Session – B

(Offline)

(Date – 25th September 2026, Time - 12:45 to 13:30)

(Venue – Old Conference Hall)

Paper ID	Paper Title	Presenter Name
19	Identifying Offensive Language: A Machine Learning Approach	Dharitri Sarkar
2	Exploring Machine Learning Applications in the Tea Industry : A Comprehensive Review	Gitanjali Devi
21	Nanotechnology-Enabled Computing Paradigms: Recent Advances in Hardware, Memory and Connectivity	Di Sai Bharadwaj
37	A Comprehensive Review of Recent Advances in Dual-Band Terahertz Patch Antennas for Next-Generation Wireless and Sensing Applications	Maidul Islam

Technical Session – C

(Online)

(Date – 26th September, 2026, Time – 08:30 to 10:00)

(Venue – Room No. 414)

(Meeting Link - <https://meet.google.com/iha-zhev-xgs>)

Paper ID	Paper Title	Presenter Name
4	Comparison of Breakdown Voltage Simulation in 2D and 3D for Vertical SiC MOSFETs	Biranchi Narayan Behera
9	Low-Power Design of a 16-Bit Kogge-Stone Adder with Precomputation and Block-Level Activity Gating for Edge-AI SoCs	Sai Saketh Tejomurthula
10	Design and Low-Power Implementation of a Schmitt Trigger-Based Current-Starved Phase Locked Loop for High-Frequency Clock Generation Using SCL CMOS Technology	Vidhya D S
18	Comparative Analysis of Charge Plasma and metallic layer concepts integrated with Electrically Doped TFET	Md. Aslam
6	Design and Simulation of a Fast Binary Hybrid Adder Using 16-bit CLA-RCA Architecture at 45nm CMOS	Palash Sinha and Jenith Reang
7	Universal Master Slave Flip-Flop for Advanced Digital Systems	Soumak Paul

Technical Session – D

(Offline)

(Date – 26th September 2026, Time – 08:30 to 10:00)

(Venue – Old Conference Hall)

Paper ID	Paper Title	Presenter Name
5	Design of Embedded Smart Agriculture Sensing System and Statistical Assessment of Standard Deviation and Dew Point Temperature	Koel Datta Purkayastha
22	Post-Layout Evaluation of the ReDFOD Architecture for Temperature-Based Applications	Arnav Banerjee
23	Performance Analysis of 16-Bit Carry Look-Ahead Adder Architectures in 45 nm CMOS	Aabhash Mukherjee
33	Properties of PVA capped ZnSe Nanoparticles synthesized by different techniques	Tina Biswakarma
24	Multi-Variant RTL Synthesis of 16-Bit Carry Look-Ahead Adders Using Cadence Genus	Apoorva Singh

Technical Session – E

(Online)

(Venue – Room No. 414)

(Date – 26th September 2026, Time – 15:45 to 17:00)

(Meeting Link - <https://meet.google.com/kos-jebt-ydd>)

Paper ID	Paper Title	Presenter Name
14	Deep Learning Enabled Cluster Optimization for Real-Time Wireless Sensor Networks	Keerti Sahu
28	Mathematical Modeling and Numerical Simulation of Nanofluid Underfill Capillary Encapsulation for High-Density 3D Integrated Circuit Assembly	Bamdeb Dey
36	Frequency Regulation in Inverter-Based Resource (IBR)-Integrated Microgrids Using Grid-Forming (GFM) Inverters and Hierarchical Droop Control	Jesif Ahmed
34	Mathematical model to estimate the performance degradation of a PV array under partial shading conditions	Darshana Sharma
16	Detection and Classification of Parkinson's Disease : A Review	Ashwini Sharma
17	Deep Learning-Based Tomato Plant Leaf Disease Detection	Satyam Soni
20	Conjugate Modified Arithmetic Subtractor – Adder Unit	Soumika Das & Elora Ghosh

Technical Session – F

(Offline)

(Date – 26th September 2026, Time – 15:45 to 17:00)

(Venue – Old Conference Hall)

Paper ID	Paper Title	Presenter Name
29	Investigation of the Structural, Optical and Electrical Properties of Ag-ZnS, and Ag-ZnO-ZnS Heterostructures for Gamma-Ray Detection Applications	Biswajit Nath
35	Development of a Non-Enzymatic Electrochemical Sensor for the Detection of Malathion Pesticide Using a Modified Au-CuO-rGO nanocomposite-based Electrode	Narendra Lakra
38	A review on Machine Learning Based Fault Detection and Reliability Assessment of BLDC Motor	Nayan Jyoti Gogoi