



BHTC 2026

6th IEEE Bangalore Humanitarian Technology Conference
March 27-29, 2026 | The Chancery Pavilion, Residency Road, Bengaluru, India

Conference Program

[Day 1: March 27, 2026 \(FRI\)](#) | [Day 2: March 28, 2026 \(SAT\)](#) | [Day 3: March 29, 2026 \(SUN\)](#)

Instructions to paper presenters:

- ★ Every accepted paper (in all tracks) in the BHTC conference must be presented in person to be included in the conference proceedings.
- ★ **Full paper (Summer/Winter Call) Oral talks** will get **15 mins (12+3 mins)** to present the paper
- ★ **WiP paper (Summer/Winter Call) Oral talks** will get **10 mins (8+2 mins)** to present the paper
- ★ For Poster authors, please bring printed A0-size posters **in portrait mode** for presentation with a FLASH talk of 3 min.

| Day-1: March 27, 2026 (FRIDAY) | |
|--------------------------------|---|
| 10:00 - 10:30 | Inauguration and Opening Remarks Address by General Co-Chairs Address by TPC Co-Chairs |
| 10.30 - 11:15 | Keynote Talk |
| 11:15 - 11:30 | Tea Break |

Day-1: March 27, 2026 (FRIDAY)
Workshop-I : AI for Sustainable Mobility
 The Chancery Pavilion, Residency Road, Bengaluru, India

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|---------------|---|
| 11:30 - 12:00 | Talk #I.1: Urban Mobility Challenges Vijay Kovvali Centre for infrastructure, Sustainable Transportation and Urban Planning Indian Institute of Science (IISc), Bangalore |
| 12:00 - 12:30 | Talk #I.2: Scaling Real-Time Traffic Analytics Over Camera Networks on Edge-Cloud Fabrics Yogesh Simmhan Department of Computational and Data Sciences Indian Institute of Science (IISc), Bangalore |
| 12:30 - 13:00 | Talk #I.3: AI in Road Safety Punit Rathore Robert Bosch Centre for Cyber Physical Systems Indian Institute of Science (IISc), Bangalore |
| 13:00 - 14:00 | Lunch Break |
| 14:00 - 14:45 | Talk #I.4: Naturalistic Driving C. V. Jawahar Center for Visual Information Technology International Institute of Information Technology (IIIT), Hyderabad |
| 14:45 - 15:15 | Talk #I.5: Electric Vehicle Scheduling Problems and Variants Tarun Rabha Centre for infrastructure, Sustainable Transportation and Urban Planning Indian Institute of Science (IISc), Bangalore |
| 15:15 - 15:45 | Talk #I.6: Bangalore Transport Stack Raghu Krishnapuram (IEEE Fellow) Centre of Data for Public Good FSID, IISc Bangalore |
| 15:45 - 16:00 | Tea Break |
| 16:00 - 17:30 | Road Safety Innovation Challenge |

Day-2: March 28, 2026 (SATURDAY)
Conference - Paper Presentations

The Chancery Pavilion, Residency Road, Bengaluru, India

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|---------------|--|
| 10.00 - 11.15 | Paper Session-I: Environment, Agriculture & Sustainability WiP: 25, 88, 95, 229, 382, 417 Poster (FLASH Talk): 446, 457, 510, 516 |
| 11.15 - 11.30 | Tea Break |
| 11.30 - 12.15 | Plenary Talk #II.1: Leveraging AI and Sensing for Precision Agriculture Rabi Narayan Sahoo Indian Agricultural Research Institute New Delhi |
| 12:15 - 13:00 | Plenary Talk #II.2: Vehicular Technologies & Sustainable Mobility Anshuman Awasthi Mercedes-Benz R&D India Bengaluru |
| 13:00 - 14:00 | Lunch Break |
| 14:00 - 15.30 | Paper Session-II: Water Resources, Environment & IoT Monitoring Full Paper: 32, 175, 234, 299, 295, 304 Paper Session-III: AI, Deep Learning, Power Systems & Transportation Full Paper: 21, 337, 383, 386, 416, 418, 441 |
| 15:30 - 15:45 | Tea Break |
| 15:45 - 17:00 | Paper Session-IV: AI, Engineering & Computational Systems WiP: 96, 120, 137, 193, 216, 375 |
| 17:00 - 17:15 | Talk #II.3: IEEE Dataport Abhishek Appaji BMSCE Bangalore & Steering Committee Member, IEEE Dataport |
| 17.15 - 17.30 | Awards and Recognition |

Day-3: March 29, 2026 (SUNDAY)
Workshop-II : Authorship Lab

The Chancery Pavilion, Residency Road, Bengaluru, India

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|---------------|--|
| 10:00 - 10:30 | Registration & Morning Tea |
| 10:30 - 11:30 | Talk #III.1: Research Methodology Neelesh Mehta (IEEE Fellow) Department of Electrical and Communications Engineering Indian Institute of Science (IISc), Bangalore |
| 11:30 - 12:30 | Talk #III.2: Research Grant Proposal Writing Mayank Shrivastava (IEEE Fellow) Department of Electronic Systems Engineering Indian Institute of Science (IISc), Bangalore |
| 12:30 - 13:30 | Lunch Break |
| 13:30 - 14:30 | Talk #III.3: Technical Paper Writing Prasant Misra Senior Scientist, TCS Research, Bengaluru & Sourav Kanti Addya Asst. Professor, NITK Surathkal |
| 14:30 - 15:15 | Talk #III.4: Research Translation and Entrepreneurship Sudeendra Koushik 2026 President, IEEE TEMS |
| 15:15 - 16:15 | Talk #III.5: Best Teaching and Research Practices Venugopal K. R. (IEEE Fellow) Vice Chancellor, Bangalore University |
| 16:15 - 16:30 | Closure & Tea |

Paper Presentations

Day-2: March 28, 2026 (SATURDAY)

Paper Session-I: Environment, Agriculture & Sustainability

WiP: 25, 88, 95, 229, 382, 417
(10.00 - 11.15)

| CMT ID | Paper Details |
|--------|---|
| 025 | Integrated GIS and AI Modelling for Groundwater Recharge and Predictive Forecasting in Bangarpet Taluk, Kolar District, Karnataka State, India <i>Aadya Kanchan (Vidyashilp Academy)</i> |
| 088 | AI-Driven Multimodal Framework for Environmental Monitoring and Conservation <i>Jayabhaduri Radhakrishnan (Alliance University)</i> |
| 095 | Harmonizing Nature Real Time Plant Signal Analysis for Music Generation Interactive Sound and Moisture Monitoring <i>V. Shankar (PES University), Venkat Raghavendra A. H. (PES University), V. Hemanth (PES University); Sushanth M. G. (PES University), Ashwini (PES University)</i> |
| 229 | Plant Leaf Disease Detection Using Deep Learning and Explainable AI <i>Yadama Chittibabu (Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology), Kammila Voneshkumar (Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology)</i> |
| 382 | Machine Learning Framework for Assessing Atmospheric and Environmental Factors Affecting Air Quality <i>Abhijay N S (Manipal Academy of Higher Education), Adithya Prasad (Manipal Academy of Higher Education), Krishnaraj Chadaga (Manipal Academy of Higher Education)</i> |
| 417 | System-Level Integration of a Chemiresistive IDE Sensor with Wireless Readout for Multi-Ion Heavy Metal Detection <i>Anju Gupta (RCOEM), Dinesh Rotake (Indian Institute of Technology, Bombay)</i> |

Paper Session-I: Environment, Agriculture & Sustainability

Poster (FLASH Talk): 446, 457, 510, 516
(10.00 - 11.15)

| CMT ID | Paper Details |
|--------|---|
| 446 | The Talking Hands <i>Shri Poornima A. (National Engineering College, Kovilpatti), Sonali Mitra A. (National Engineering College, Kovilpatti), Yuvanithi R. (National Engineering College, Kovilpatti)</i> |
| 457 | Traffic Prediction Using Intelligent Transportation System With Big Data And Diffusion Models <i>Hema Sree Buchupalli (VEL TECH RANGARAJAN Dr. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY), Shaik Shaheed (VEL TECH RANGARAJAN Dr. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY), Tamilselvan T. (VEL TECH RANGARAJAN Dr. SAGUNTHALA R&D INSTITUTE OF SCIENCE AND TECHNOLOGY)</i> |
| 510 | Energy-Efficient 3D Scene Representation: A Review of Sparse-View Gaussian Splatting for Sustainable AI <i>G. Pavithra (Indian Institute of Science, Bengaluru)</i> |
| 516 | Federated and Fairness-Aware Learning for Rural Healthcare Risk Prediction Under Data Scarcity <i>Dhruvi A. (Manipal Institute of Technology, Bengaluru); Saksham Garg (Manipal Institute of Technology, Bengaluru), Panchadip Bhattacharjee (Manipal Institute of Technology, Bengaluru), Somyajeet Arukh (Manipal Institute of Technology, Bengaluru), Nishanth Shet (Manipal Institute of Technology, Bengaluru), Gururaj H. L. (Manipal Institute of Technology, Bengaluru)</i> |

Paper Presentations

Day-2: March 28, 2026 (SATURDAY)

Paper Session-II: Water Resources, Environment & IoT Monitoring

Full Paper: 32, 175, 234, 299, 295, 304

(14:00 - 15:30)

| CMT ID | Paper Details |
|---------------|---|
| 032 | <p>A Web-Based Interactive Dashboard for Ground Water Analysis and Decision Support <i>Linda Theres B (Center of Data for Public Good, Indian Institute of Science-Foundation for Science Innovation and Development, Bangalore), Jyotirmoy Dutta (Center of Data for Public Good, Indian Institute of Science-Foundation for Science Innovation and Development, Bangalore), Rakshit Ramesh (Center of Data for Public Good, Indian Institute of Science-Foundation for Science Innovation and Development, Bangalore)</i></p> |
| 175 | <p>AI-Assisted IoT Framework for Water Quality Monitoring with Real-Time WQI Prediction and Cleaning Forecasting <i>Tushar Alande (Pimpri Chinchwad College of Engineering, Pune), Varsha Harpale (PCCOE, Pune), Aryan Bharaswadkar (PCCOE, Pune), Siddhant Babanagar (PCCOE, Pune)</i></p> |
| 234 | <p>Explainable ML for Water Quality Index Prediction and Cross-Basin Transfer: A Karnataka Rivers Case Study <i>Vihaan N. (PES University), Manish C. (PES University), Mayur K. (PES University), Shruthi M. L. J. (PES University)</i></p> |
| 299 | <p>Real-Time IoT System for Air Quality Monitoring and Booster Fan Predictive Maintenance <i>Kaliffathullah S. (R.M.K. Engineering College), Harish Gnanasambanthan G. (R.M.K. Engineering College)</i></p> |
| 295 | <p>Deep Learning-Based End-to-End Underwater Structural Crack Detection with YOLOv8 and Synthetic Augmentation for Enhanced Visibility <i>Sumithra G. (Madras Institute of Technology), Nithyashree V. (Madras Institute of Technology), Purushothaman Karthikeyan (Madras Institute of Technology), Navaneetha Krishnan K. P. (Madras Institute of Technology)</i></p> |
| 304 | <p>IoT-Based Real-Time Water Quality Monitoring System for Natural Water Bodies <i>Sravanthi Bondada (JNTUK), Vinay Kumar Pamula (JNTUK)</i></p> |

Paper Presentations

Day-2: March 28, 2026 (SATURDAY)

Paper Session-III: AI, Deep Learning, Power Systems & Transportation

Full Paper: 21, 337, 383, 386, 416, 418, 441

(14:00 - 15.30)

| CMT ID | Paper Details |
|--------|---|
| 021 | Quantum-Inspired Constraint Optimization with Dynamic Explainable AI for Resilient EV Charging Infrastructure in Smart Cities <i>Urmit Mahida (NTT Data Inc), Harshit Joshi (NTT data Inc), Mohammad Hammad Ahmad (NTT Data Inc)</i> |
| 337 | Efficient Deep Learning Models for Marine Fish Classification Using Transfer Learning and Knowledge Distillation <i>Vivaan Sharma (Indian Institute of Information Technology Dharwad), Karthikeya Bethu (Indian Institute of Information Technology Sri City), Rohan Chidri (Indian Institute of Information Technology Dharwad), Prabhu Prasad B. M. (Indian Institute of Information Technology Dharwad), Pavan Kumar B. N. (Indian Institute of Information Technology Sri City), G. N. Girish (Indian Institute of Information Technology Dharwad)</i> |
| 383 | Curriculum-Based RL for Capacitated EV Routing with Time Windows and Discharge <i>Vanshika Jindal (Indian Institute of Science), Naman Srivastava (Center of Data for Public Good - IISc), Tandava Sai (Indian Institute of Science)</i> |
| 386 | Hybrid Open-switch Fault Diagnosis in 3-phase T-Type Inverter <i>Jeevan N. D. (Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, India), Niraj Dewangan (Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal), Krishna Kumar Gupta (Thapar Institute of Engineering and Technology, Patiala, Punjab, India), Sunil K. Singla (Thapar Institute of Engineering and Technology, Patiala, Punjab, India), Pallavee Bhatnagar (National Institute of Technical Teachers' Training & Research, Bhopal, Madhya Pradesh, India), Karthik B. M. (Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, India)</i> |
| 416 | AdaptiMOD: A Hybrid Deep Learning and Multi-Agent Reinforcement Learning Framework for Sustainable Multimodal Transportation in Developing Economies <i>Muthukumarapandian Chandrasekaran (Citiustech)</i> |
| 418 | Intelligent Decision Support System for Sustainable Precision Agriculture: A Deep Learning Approach <i>Braveen Manimozhi (Vellore Institute of Technology), Altrin Lloyd Hudson D. (Vellore Institute of Technology), Gayathri R. (Vellore Institute of Technology), Adeline Sneha (Asia Pacific University of Technology and Innovation)</i> |
| 441 | Intelligent IoT-Enabled Plant Disease Identification Using Deep Learning <i>Sheetal Bagali (Sir MVIT, Bangalore)</i> |

Paper Presentations

Day-2: March 28, 2026 (SATURDAY)

Paper Session-IV: AI, Engineering & Computational Systems

WiP: 96, 120, 137, 193, 216, 375
(15.45 - 17.00)

| CMT ID | Paper Details |
|---------------|---|
| 096 | Predicting Endocrine Disruptors: A Deep Learning QSAR Model for Estrogen Receptor Activity <i>Belaguppa Manjunath Ashwin Desai (Dayananda Sagar University), Shreyas Murthy (Dayananda Sagar University), Bhoomika Sridhar (Dayananda Sagar University), Anirudh Belaguppa Manjunath (Northeastern University)</i> |
| 120 | AutoAd Studio: An Adaptive Multi-Modal Agentic Framework for Automated Content Creation, Competitor-Aware Strategy, Sentiment-Aware Targeting, and Campaign Management <i>Sam Meshach (Sri Eshwar College Of Engineering), Sujithra L. R. (Sri Eshwar College Of Engineering), Sudharsana B. (Sri Eshwar College Of Engineering), Vishal Kumar S. (Sri Eshwar College Of Engineering)</i> |
| 137 | AI Based Flight Trajectory Optimization using Reinforcement Learning <i>Achyutha Nijigal (Dayananda Sagar University), Balasubramanyam B. S. (Dayananda Sagar University), Sripad Kulkarni S. (Dayananda Sagar University)</i> |
| 193 | The Multi-Dimensional Sustainability Assessment Framework (MDSAF): A Lifecycle and ESG-Aligned Approach for Evaluating Industrial AI Systems <i>Aman Hashim (Christ University), Cynthia T. (Christ University)</i> |
| 216 | Sustainable Infrastructure Modelling Using Advanced Queuing Theory for Multi-Stage Automotive Design Networks <i>Kavitha K. (Saveetha school of Engineering, Saveetha University), Maragathasundari S. (Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences), Swedheetha Chandrasekhar (Velammal College of Engineering and Technology)</i> |
| 375 | Real Time State Estimation in Electric Drives via EKF based Digital Twin <i>Gowri N (Sri Ramakrishna Engineering College), Abinaya K (Sri Ramakrishna Engineering College), Kanimozhi V. (Sri Ramakrishna Engineering College), Ezhilarasi M. (Sri Ramakrishna Engineering College)</i> |