

Preface

The 2025 International Conference on Information Systems and Communication Technologies (ICISCT'25) was successfully held from June 26 to 28, 2025, in Larache, Morocco. This premier gathering brought together leading researchers, industry practitioners, and policymakers to address the rapidly evolving challenges and opportunities at the nexus of information systems and communication technologies. The conference served as a vital platform for discussing the latest advancements in digital transformation, network infrastructures, cybersecurity, and data-driven decision-making. Central themes included the integration of artificial intelligence with communication networks, the development of resilient and secure information systems, and the role of emerging technologies in fostering inclusive and sustainable digital economies. By facilitating the exchange of cutting-edge research and real-world applications, ICISCT'25 significantly contributed to shaping the future of our interconnected digital world.

Eight experts took the stage at the conference. Mohamed Essaaidi kicked things off by laying out the challenges of smart cities. Almudena Suárez warned about Efficient Analysis of Compact Oscillator-Based Implementations in RFID Readers, Self-Injection-Locked Radar, and Wireless Power Transfer. Ahmed Boutejdar and Mohamed Et-tolba focused on the technical side—advanced modeling and physical layers—with Et-tolba drawing on his experience at Orange Labs. Rasha Hasan and Abdelali El Aroudi broadened the scope: one on resilient systems, the other on energy efficiency in power electronics. Industry representative Azzeddin Naghar (Commscope) shared practical feedback from the EMEA region. Finally, Korhan Cengiz, ranked among the top 2% most-cited researchers worldwide, closed with his latest work in electronics. Overall, these talks clearly connected lab research to real-world applications, while offering concrete outlooks for tomorrow's networks and sustainable cities.

The success of ICISCT'25 was the result of the unwavering dedication and collaborative efforts of numerous individuals and institutions. The organizing committee extends its deepest gratitude to all the authors and presenters whose scholarly contributions formed the core of the academic discourse. We are equally thankful to our keynote speakers for sharing their visionary research. The seamless execution of the conference was made possible by the tireless efforts of our volunteers and the generous support of our host institutions. We also acknowledge the critical and essential role played by our technical reviewers, who ensured the high quality and integrity of the accepted papers. This spirit of collaboration underscores a shared global commitment to pushing the boundaries of information systems and communication technologies. We look forward to building on this momentum and warmly welcoming the international research community to future editions of ICISCT.

The collected papers cover a wide spectrum of topics, including advanced network architectures, machine learning applications in cybersecurity, Internet of Things (IoT) systems, cloud and edge computing, digital health informatics, and sustainable ICT solutions. These contributions highlight the increasingly interdisciplinary nature of tackling global challenges through information technology. By documenting innovative methodologies, robust theoretical frameworks, and practical case studies, this volume serves as an invaluable resource for researchers, engineers, and decision-makers dedicated to advancing the state-of-the-art. The work presented herein marks a significant step toward creating more efficient, secure, and human-centric technological ecosystems.

ICISCT'25 Conference Committee

Committee Members

Conference General Chairs

- Prof. Prof. Larbi Setti, Abdelmalek Essaadi University, Morocco
- Prof. Abdelwahed Tribak, INPT-Rabat, Morocco
- Prof. Jaouad Terhzaz, CRMEF – Casablanca, Morocco
- Prof. Otman El Mrabet, Abdelmalek Essaadi University, Morocco

Guest editors

- Prof. Abdelwahed Tribak, INPT-Rabat, Morocco
- Prof. Jaouad Terhzaz, CRMEF – Casablanca, Morocco
- Prof. Prof. Larbi Setti, Abdelmalek Essaadi University, Morocco
- Prof. Soufian Lakrit, University of Mohammed I, Oujda, Morocco
- Prof. Tomas Fernandez, Cantabria University, Spain





Scientific Committee

- Pr. Larbi Setti, Abdelmalek Essaadi University, Morocco
- Pr. Tomas Fernandez, Cantabria University, Spain
- Pr. Mohamed Et-tolba, INPT, Rabat, Morocco
- Pr. adnane addaim, EMI, Rabat, Morocco
- Pr. Mohamed Taouzari, Hassan I University, Settat, Morocco
- Pr. Soufian Lakrit, Mohammed Premier University, Oujda, Morocco
- Pr. Naima Amar Touhami, Abdelmalek Essaadi University, Morocco
- Pr. Lahcen Ait Ben Ali, CRMEF-CS, Casablanca, Morocco
- Dr. Hafid Tizyi, INPT, Rabat, Morocco
- Dr. Ouadefli Mostapha, Universidad de Cantabria (UNICAN), Santander, Spain
- Pr Adil Haddi, Hassan First University, Morocco
- Pr. Anass EL Mamouni, Abdelmalek Essaadi University, Morocco
- Dr. Hicham Setti, Abdelmalek Essaadi University, Morocco
- Pr. Abdelwahed Tribak, INPT, Rabat, Morocco
- Pr. Jaouad Terhzaz, CRMEF-CS, Casablanca, Morocco
- Pr. Rafik LASRI, FPL, Abdelmalek Essaadi University, Morocco
- Dr. Soukaina BOUHMAIDI, FPL, Abdelmalek Essaadi University, Morocco
- Pr. Fatima Ezzahrae M'HAMDI ALAOUI, Abdelmalek Essaadi University, Morocco
- Pr. Otman Mrabet, Abdelmalek Essaadi University, Morocco
- Pr. Mariem Aznabet, Abdelmalek Essaadi University, Morocco
- Pr. Bousselham SAMOUDI, FS, Abdelmalek Essaadi University, Morocco
- Pr. Abdelhadi ENNAJIH, ENSEM, Hassan II University, Morocco
- Pr. Tomas Fernandez Ibanez, Cantabria University, Spain
- Pr. El arbi Abdellaoui ALLAOUI, Moulay Ismail University, Morocco
- Pr. Sanae ACHSAS, Mohmmed First University, Morocco
- Pr Mohamed El fissaoui, Mohammed First University, Morocco
- Pr. Esmail AHOUZI, INPT Rabat, Morocco
- Pr. Omar AIT OUALHAJ, INPT Rabat, Morocco
- Pr. Amine BAINA, INPT Rabat, Morocco
- Dr. Mohammed BENDAOUED, FSTS, Hassan First University, Morocco
- Bouchaib CHERRADI, CRMEF Casablanca-Settat, Morocco
- Said BROUMI, Hassan II University, Morocco
- Pr. Faiza DIB, FSTH, Abdelmalek Essaadi University, Morocco
- Dr. Ali EL ALAMI, Sidi Mohamed Ben Abdellah University, Morocco
- Pr. Almudena Suarez, ETSIT, University of Cantabria, Santander, Spain
- Pr. Najiba El Idrissi El Amrani, University of Sidi Mohammed Ben Abdellah, Fes, Morocco
- Pr. Saida Ahyoud, University of Abdelmalek Essaadi, Tetouan, Morocco
- Dr. Mostafa Belmekki, INPT, Rabat, Morocco
- Pr. Youssef LAGMICH, FPL, Abdelmalek Essaadi University, Morocco
- Pr. Asmaa Zugari, Abdelmalek Essaadi University, Morocco
- Pr. Alia Zakriti, Abdelmalek Essaadi University, Morocco
- Pr. Abdelali El Aroudi, Universidad Rovira i Virgili, Tarragone, Spain
- Pr. Dr. Rasha Hasan, Liwa College, United Arab Emirates

- Pr. Aziz DKIOUAK, Chouaib Doukkali University, Morocco
- Pr. Samar MUTI, Liwa College, United Arab Emirates
- Pr. Abdelmoumen KAABAL, Abdelmalek Essaadi university, Morocco
- Pr. Rachid DAKIR, Ibn Zohr University, Agadir, Morocco
- Pr. Abdelali Tajmouati, Hassan First University, Settat, Morocco
- Pr. Ahmed ERRKIK, Hassan First University, Settat, Morocco
- Pr. Mohammed EL GHZAoui, Sidi Mohamed Ben Abdellah University, Morocco
- Pr. Mohssine EL OUAHABI, Abdelmalek Essaadi University, Morocco
- Pr. Oussama ELISSATI, INPT Rabat, Morocco
- Pr. Hassan ELMAJID, EMI, Mohamed V University, Morocco
- Pr. Mohamed LAHRAICHI, CRMEF Casablanca-Settat, Morocco
- Pr. Mohammed LAHSAINI, Moulay Ismail University, Morocco
- Pr. Adnane LATIF, Abdelmalek Essaadi University, Morocco
- Pr. Mohamed BEN ALI, Hassan II University, Morocco
- Pr. Ali OUACHA, Mohamed V University, Morocco
- Pr. Adnan SOURI, FS, Abdelmalek Essaadi University, Morocco
- Pr. Said ZIANI, Mohammed V University, Morocco
- Pr. Moussa Labbadi, Mohammed V University in Rabat, Mohammadia School of Engineers, Morocco