



INTERNATIONAL CONFERENCE ON ADVANCES IN COMMUNICATION TECHNOLOGY AND COMPUTER ENGINEERING

(ICTACE '23)

24 - 25 FEBRUARY, 2023

The International Conference on Advances in Communication Technology and Computer Engineering will be organized from 24-25 February 2023 in Bolton, UK with the objective of bringing together innovative scientists, professors, research scholars, students and industrial experts in the field of Computing and Communication to a common forum.

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Bolton, United Kingdom

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ABOUT THE CONFERENCE

In recent years, we have observed an acceleration in the development of new technologies, mainly linked to the growth of the population, particularly in urban areas, which has led to a significant acceleration relating to reversals in research and innovation. What gave birth to a new concept is the smart city. This concept appeared at the crossroads of two strong tendencies, the exponential urbanization of humanity and the digital revolution, information and communications technologies are equipping cities with the objective of providing tools to help decision thus improve urban functioning.

Artificial Intelligence and Internet of Things have introduced themselves today as must-have technologies in almost every sector. Ranging from agriculture to industry, and healthcare, the scope of applications of AI and IoT is as wide as the horizon. Nowadays, these technologies are extensively used in developed countries, but they are still at an early stage in emerging countries. As these countries were more affected by the COVID-19 pandemic, both healthcare-wise and economy-wise, the need to adopt new solutions to sustainable development challenges has become more crucial than ever.

The International Conference on Advances in Communication Technology and Computer Engineering will be organized from 24 to 25 February 2023 in Bolton, Greater Manchester, United Kingdom by the University of Bolton. The conference is organized with the objective of bringing together innovative scientists, professors, research scholars, students and industrial experts in the field of Computing and Communication to a common forum.

There were 140 paper submissions from 10 countries. Each submission was reviewed by at least three chairs or PC members. We accepted 75 regular papers (53%).

We would like to thank all authors and reviewers for their work and valuable contributions. The friendly and welcoming attitude of conference supporters and contributors made this event a success!

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CALL FOR PAPERS

The scope of ICTACE'23 Conference is to provide a common forum for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in various topics of Engineering and Technology. It is an opportunity to discuss and interchange about the real needs of Smart Cities in order to contribute in realizing smart communities of the future. The conference covers all topics of Smart cities, Artificial Intelligence, Internet of Things, Communication Networks and Data Analytics.

TRACK 1

COMMUNICATION NETWORKS

Wireless Communications
Mobile Ad-Hoc Networks
Software Defined Networks
Information Theory and Coding
Wearable Network and Systems
Personal Communication Systems
Vehicular Networks and Applications
M2M and MTC Communications
Cloud Communications and Networking: Fog/Edge/Cloud

Internet of Things
Architecture and protocols
Satellite Communication
Quantum Networking
Qos Provisioning and Architectures
Computer Security
Network Security
Cyber Security

TRACK 2

COMPUTATIONAL INTELLIGENCE

Big Data
Data Mining
Artificial Intelligence
Evolutionary algorithms
Swarm Intelligence
Fuzzy Sets and Vague Sets
Hybrid Computational Intelligence

Gamification / Game Technologies
Digital Public and Policy Engagement
Spaces
Computer Vision
Soft Computing
Decision Support and Decision making
Image Processing

TRACK 3

EMBEDDED SYSTEMS AND SMART APPLICATIONS

Industry 4.0
Robotics
Smart Cities
Smart Grid
Green Energy

Renewable Energy and Storage
Smart Healthcare
Smart Agriculture

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Hajar Moudoud, University of Sherbrooke, Sherbrooke, Canada

TRACK II: COMPUTATIONAL INTELLIGENCE

Paul Hollins, University of Bolton, United Kingdom
Thaier Hamid, University of Bolton, United Kingdom
Sara Arezki, Hassan I University, Settat, Morocco

TRACK III: EMBEDDED SYSTEMS AND SMART APPLICATIONS

Andrew Holland, University of Bolton, United Kingdom
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CONFERENCE KEYNOTES



JYOTIKA ATHAVALE

SENIOR TECHNICAL LEADER, NVIDIA
CORPORATION AND PRESIDENT-ELECT, IEEE
COMPUTER SOCIETY

Jyotika Athavale is a Senior Technical Leader and Functional Safety Architect at Nvidia Corporation. President-Elect, IEEE Computer Society. She is a recognized industry expert with in-depth technical knowledge of platform technologies and architectures for Automotive, Transportation and Avionics Safety Critical Systems, also with expertise in radiation effects modeling for soft errors performance. Based in the US, her 24 years of industry career experience in the semiconductor and EDA industry has spanned technical leadership positions as well as people management roles. Jyotika is a board member of the IEEE Computer Society Board of Governors and a Distinguished Visitor with the IEEE Computer Society. She is also one of the IEEE Computer Society representatives to the IEEE Systems Council.



PROF. DR. IMED ROMDHANI

EDINBURGH NAPIER
UNIVERSITY, UNITED KINGDOM

Prof. Dr. Imed Romdhani is a full time Associate Professor in networking at Edinburgh Napier University since June 2005. He was awarded his PhD from the University of Technology of Compiègne (UTC), France in 2005. He holds also an engineering and a MSc degree in networking obtained respectively in 1998 and 2001 from the National School of Computing (ENSI, Tunisia) and Louis Pasteur University (ULP Strasbourg, France). He worked extensively with Motorola Research Labs in Paris and authored 4 patents. Dr Romdhani contributed to several IETF drafts and RFCs and published several research articles and papers in high quality peer reviewed journals and conferences. He is currently an expert and rapporteur with the European Commission and a member of Huawei ITC academy advisory board. His research interests include: IoT, networking protocol design, SDN and AI.



PROF. DR. SUDHA RAMASAMY

IEEE SWEDEN WIE VICE CHAIR. SENIOR
LECTURER, UNIVERSITY WEST, SWEDEN.

Prof. Dr. Sudha Ramasamy holds a PhD in Electrical Engineering with a specialization in developing robotic arms for Biomedical applications. She is having 21 years of academic experience and currently, she is a Senior Lecturer at the Division of Production Systems, University West, Sweden, Vice president of IEEE WIE Sweden chapter, and Senior member of IEEE. She is having expertise in the field of Applied automation, Robot modeling, and Path planning algorithms. She is teaching Master's program subjects in Robotics and Automation. She is also a researcher in the projects named CLOUDS and SmoothIT funded by Vinnova, Sweden. The project PoPCoRN is funded by KK foundation Sweden. She has published more than 53 articles in reputed international conferences and Journals and 6 book chapters.



PROF. DR. MOHAMMED M. ALANI

SENECA COLLEGE, TORONTO, CANADA

Mohammed M. Alani holds a PhD in Computer Engineering with specialization in network security. He has worked as a professor, and a cybersecurity expert in many countries around the world. His experience includes serving as VP of Academic Affairs in the United Arab Emirates, network and security consultancies in the Middle-East, and Cybersecurity Program Manager in Toronto Canada. He currently works as a Cybersecurity Professor at Seneca College, and a Research Fellow at Ryerson University, Toronto, Canada. He has authored 4 books in different areas of networking and cybersecurity along with many research papers published in highly ranked journals and conferences.

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CONFERENCE PROGRAM

Day 1: February 24, 2023

08:30 AM - 09:00 AM

Registration

Assistance to the participants

09:00 AM - 09:30 AM

Opening Speech

Provost (Zubair Hanslot), Dean of School of Engineering and Creative Technologies (Simon Wiggins), Head of School of Creative Technologies (Sam Johnson)

09:30 AM - 10:15 AM

Keynote 1: Prof. Dr. Imed Romdhani

Chair: Dr. Celestine Iwendi

10:15 AM - 10:30 AM

Break

10:30 AM - 11:15 AM

Keynote 2: Prof. Dr. Sudha Ramasamy

Chair: Dr. Zakaria Boulouard

11:15 AM - 12:20 PM

Session I: Track 1 - Communication Networks

Chairs: Dr Ebuka Ibeke, Jude Osamor

Session II: Track 1 - Communication Networks

Chair: Dr Thaier Hamid, Michael Onyema Edeh

Session III: Track 1 - Communication Networks

Chair: Dr. Mohammed Benmubarak, Dr Pradeep Hewage

Session IV: Track 1 - Communication Networks

Chair: Dr Mohammad Shah, Francis Morrissey

12:20 PM - 02:00 PM

Break

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CONFERENCE PROGRAM

Day 1: February 24 2023 (Contd.)

02:00 PM - 02:45 PM

Keynote 3: Jyotika Athavale

Chair: Prof. Jerome Carlson

02:45 PM - 03:30 PM

Keynote 4: Prof Dr Mohammed M Alani

Chair: Dr Ikpenmosa Uhumuavbi

Session V: Track 2 - Computational Intelligence

Chairs: Dr Senthilkumar M, Mohit Mittal,

Session VI: Track 2 - Computational Intelligence

Chairs: Dr Farag Edghiem, Prof Zakaria Boulouard

Session VII: Track 2 - Computational Intelligence

Chairs: Dr. Amleset Kelati, Dr Mariya Ouaisa

03:40 PM - 06:00 PM

Session VIII: Track 2 - Computational Intelligence

Chairs: Dr Henry Joseph Anajemba, Mogul Ibtisam

Session IX: Track 2 - Computational Intelligence

Chairs: Prof Paul Hollins, Prof Dr Gitanjali J

Session X: Track 2 - Computational Intelligence

Chairs: Dr. Vandana Sharma, Aamir Abbas

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CONFERENCE PROGRAM

Day 2: February 25 2023

09:00 AM - 09:15 AM

Welcome Note

Keynote on The GREAT Project by Prof. Paul Hollins, Dr. Celestine Iwendi

09:15 AM - 09:55 AM

Special Session by Industry Partners

Chair: Dr. Anchal Garg

10:00 AM - 12:15 PM

Special Session: Digital Transformation of Contemporary Business Practices

Chairs: Dr Farag Edghiem

Special Session: Applications of Tech. for Mental Health

Chairs: Prof Jerome Carlson

12:20 PM - 01:20 PM

Break

01:20 PM - 03:20PM

Session XI: Track 3 - Embedded Sys. & Smart Appl.

Chairs: Dr Shukla Shivang, Deepak Dasaratha Rao

03:20 PM - 03:45 PM

Award and Closing Ceremony

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Session I: Track 1 - Communication Networks

Chairs: Dr Ebuka Ibeke, Jude Osamor

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CONFERENCE SESSIONS

Session II: Track 1 - Communication Networks

Chair: Dr Thaier Hamid, Michael Onyema Edeh

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CONFERENCE SESSIONS

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Chair: Dr. Mohammed Benmubarak, Dr Pradeep Hewage

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Raynell Inojosa and Celso Co

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CONFERENCE SESSIONS

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Chair: Dr Mohammad Shah, Francis Morrissey

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A qualitative study of the effects of socio-organizational factors on the information security culture of employees in a financial institution.

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Session V: Track 2 - Computational Intelligence

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Thermal Image-Based Early Breast Cancer Detection: A Study Using Lightweight Deep Learning Models

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CONFERENCE SESSIONS

Session VI: Track 2 - Computational Intelligence

Chairs: Dr Farag Edghiem, Prof Zakaria Boulouard

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SDD: An Efficient Stacked Deep Learning Technique for Social Distance Detection

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Evaluation of Text Classification using Support Vector Machine compare with Naive Bayes, Random Forest Decision Tree and K-NN

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A Novel Feature Elimination Approach in Ensemble Learning on NSL-KDD Dataset in Comparison with Variable Elimination Algorithm to Improve Accuracy

Tao Hai, Shaoyi Li, Ibrahim Kehinde Salawudeen, Afolake O Adedayo, Huabin You and Celestine Iwendi

CONFERENCE SESSIONS

Session VII: Track 2 - Computational Intelligence

Chairs: Dr. Amleset Kelati, Dr Mariya Ouaisa

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Special Session by Industry Partners

Chair: Dr. Anchal Garg

TIME

SPEAKER

09:15 AM

-

09:35 AM

Anis Patel, Data Analyst, Aavoira, UK

09:35 AM

-

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Abhishek Bhattacharya, CEO, Bru, India

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A Review of Social Media Marketing on Digital Savvy Brand Shoppers

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Farag Edghiem and Mohamed Shrief

DTCMB-6

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Mohamed Shrief, Farag Edghiem and Brittany Lea

DTCMB-7

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Positive addiction recovery for an online audience: Implementation design and user evaluation
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