EECSS 2023

PROCEEDINGS OF THE 9TH WORLD CONGRESS ON ELECTRICAL ENGINEERING AND COMPUTER SYSTEMS AND SCIENCE (EECSS 2023)

AUGUST 03 - 05, 2023 | BRUNEL UNIVERSITY, LONDON, UNITED KINGDOM

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WELCOME MESSAGE FROM THE CONFERENCE CHAIR

On behalf of the International Academy of Science, Engineering and Technology (International ASET Inc.), the organizing committee would like to welcome you to the 9th World Congress on Electrical Engineering and Computer Systems and Science (EECSS 2023).

EECSS is aimed to become one of the leading international annual congresses in the fields of electrical engineering and computer systems and science. This congress will provide excellent opportunities to the scientists, researchers, industrial engineers, and university students to present their research achievements and to develop new collaborations and partnerships with experts in the field.

In the ninth meeting of this conference, one Plenary Speaker and five keynote speakers will share their expertise with the aim of exposing participants to a wide spectrum of applications, and to foster crosspollination of ideas and develop new research interests. In addition, approximately 68 papers will be presented from professors, students, and researchers across the world.

We thank you for your participation and contribution to the 9th World Congress on Electrical Engineering and Computer Systems and Science (EECSS 2023). We wish you a very successful and enjoyable experience.

Dr. Luigi Benedicenti
Congress Chair and Proceedings Editor
EECSS 2023

Dr. Zheng Liu
Congress Co-Chair and Proceedings Editor
EECSS 2023

Dr. Vaclav Skala
Congress Local Chair
EECSS 2023

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ABOUT EECSS 2023

- **EECSS is aimed to become one of the leading international annual congresses in the fields of electrical engineering and computer systems and science.**
  This congress will provide excellent opportunities to the scientists, researchers, industrial engineers, and university students to present their research achievements and to develop new collaborations and partnerships with experts in the field.
- There are 5 conferences included in the EECSS Congress:
- **CIST 2023** - 8th International Conference on Computer and Information Science and Technology
  MHCI 2023 - 10th International Conference on Computer and Information Science and Technology
  MVML 2023 - 9th International Conference on Machine Vision and Machine Learning
  ICBES 2023 - 10th International Conference on Biomedical Engineering and Systems
  EEE 2023 - 9th International Conference on Electrical Engineering and Electronics
- While each conference consists of an individual and separate theme, the 5 conferences share considerable overlap, which prompted the organization of this congress. The goal of this undertaking is to bring together experts in each of the specialized fields, and at the same time allow for cross pollinations and sharing of ideas from the other closely related research areas.
- **EECSS** is an acronym for **E**lectrical, **E**ngineering and **C**omputer **S**ystems and **S**cience .
- The proceedings is published in Ottawa, Canada.
- All papers were peer-reviewed
- The congress proceedings is published under an ISSN and ISBN number
- Each paper is assigned a unique DOI number by Crossref
- The conference proceedings are indexed by Scopus and Google Scholar
- The proceedings is permanently archived in Portico (one of the largest community-supported digital archives in the world)

Scopus Google Scholar Crossref PORTICO

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SCIENTIFIC COMMITTEE

We would like to thank the following for accepting to act as a member of the Scientific Committee for the EECSS 2023 Congress:

Dr. Luigi Benedicenti
University of New Brunswick, Canada
Congress Chair

Dr. Zheng Liu
University of British Columbia, Canada
Congress Co-Chair

Dr. Vaclav Skala
University of West Bohemia, Czech Republic
Congress Local Chair

Scientific Committee Members for CIST 2023

- **Dr. Luigi Benedicenti,** University of New Brunswick, Canada
- **Dr. José Carlos,** University of Salamanca, Spain
- **Dr. Aparicio Carranza,** New York City College of Technology, USA
- **Dr. Paolo Ciancarini,** University of Bologna, Italy
- **Dr. Luca Deri,** University of Pisa, Italy
- **Dr. Abdel Aziz Farrag,** Dalhousie University, Canada
- **Dr. Judith Gal-Ezer,** The Open University, Israel
- **Dr. Azfar Khalid,** Nottingham Trent University, UK
- **Dr. Vrahatis Michael,** University of Patras, Greece
- **Dr. Zoheir Sabeur,** Bournemouth University, UK
- **Dr. Neli Zlatareva,** Central Connecticut State University, USA

Scientific Committee Members for MHCI 2023

- **Dr. Michael F Bergmann,** Toronto Metropolitan University (formerly Ryerson University), Canada
- **Dr. Zoran Bojkovic,** University of Belgrade, Serbia
- **Dr. Nam Ju Kim,** University of Miami, USA
- **Dr. Sunil Kumar,** San Diego State University, USA
- **Dr. Kamran Sedig,** Western University, Canada
- **Dr. Dheerendra Mishra,** Maulana Azad National Institute of Technology, India
- **Dr. Hai Long Tran,** DePaul University, USA
- **Dr. Kazuhisa Yanaka,** Kanagawa Institute of Technology, Japan

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SCIENTIFIC COMMITTEE

Scientific Committee Members for ICBES 2023

- **Dr. Gabriele Candiani,** Politecnico di Milano, Italy
- **Dr. Zhongping Chen,** University of California, USA
- **Dr. Elba Mauriz García,** University of León, Spain
- **Dr. Ivan T. Lima,** North Dakota State University, USA
- **Dr. Nardo Luca,** University of Insubria, Italy
- **Dr. Mehrab Mehrvar,** Toronto Metropolitan University (Formerly Ryerson University), Canada
- **Dr. Elisa Michelini,** University of Bologna, Italy
- **Dr. Michele Oliver,** University of Guelph, Canada
- **Dr. Ziming Zhang,** Worcester Polytechnic Institute, USA
- **Dr. Yi Zhang,** University of Connecticut, USA

Scientific Committee Members for EEE 2023

- **Dr. Valentina Ciriani,** University of Milan, Italy
- **Dr. Zhirun Hu,** The University of Manchester, UK
- **Dr. Dragan Poljak,** University of Split, Croatia
- **Dr. Gorazd Štumberger,** University of Maribor, Slovenia

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PLENARY AND KEYNOTE SPEAKERS

The keynote information for the 9th World Congress on Electrical Engineering and Computer Systems and Science (EECSS 2023) is as follows:

Plenary Speaker

Dr. Brian Amsden
Queen's University, Canada
ICBES 2023 Plenary Speaker

Keynote Speakers

Dr. Peter Driessen
University of Victoria, Canada
MHCI 2023 Keynote Speaker

Dr. Andrew G. Kirk
McGill University, Canada
ICBES 2023 Keynote Speaker

Dr. Dalila B. Megherbi
University of Massachusetts Lowell, USA
MVML 2023 Keynote Speaker

Dr. Omar M. Ramahi
University of Waterloo, Canada
EEE 2023 Keynote Speaker

Dr. George Tzanetakis
University of Victoria, Canada
MHCI 2023 Keynote Speaker

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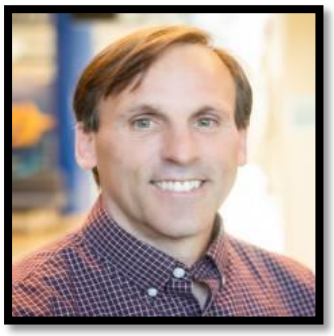
PLENARY SPEAKER



Titles: Aliphatic Polycarbonate-Based Biomaterials: From Elastic Hydrogels to Viscous Liquids

Dr. Brian Amsden, Queen's University, Canada

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Brian Amsden is the Donald and Joan McGeachy Chair in Biomedical Engineering at Queen's University. Following the completion of his PhD (Queen's 1996), he worked for Angiotech Pharmaceuticals in Vancouver as a Research Associate, leading projects involving the formulation of paclitaxel for localized delivery to treat restenosis, psoriasis, and rheumatoid arthritis. He left Angiotech to join the Faculty of Pharmacy at the University of Alberta in 1997 and is currently a Professor in the Department of Chemical Engineering at Queen's University where he has been since July 2000.

KEYNOTE SPEAKER

Titles: Intelligent Musical Instruments: Challenges for the Composer/Performer

Dr. Peter Driessen, University of Victoria, Canada

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Peter Driessen is Professor of Electrical and Computer Engineering at the University of Victoria. He received his PhD from the University of British Columbia, Canada. He worked for 5 years in various companies in Vancouver Canada designing modems for data communications. He then joined the University of Victoria, Canada where he is now Professor in Electrical and Computer Engineering, with a cross appointment in Music. He spent two years plus 8 summers at AT&T Bell Laboratories, New Jersey USA working on wireless communications systems. He was at Massey University Wellington as visiting Professor of Multimedia Systems Engineering for 5 years. He collaborated with Andrew Schloss and George Tzanetakis on a research program designing new musical instruments funded by three Canadian granting councils and a combined bachelor's degree program in Music and Computer Science. He was papers co-chair for the International Computer Music Conference held in Cuba. www.driessen.ca

KEYNOTE SPEAKER

Titles: Rapid DNA Amplification: Recent Approaches to Accelerating Nucleic Acid Diagnostic Methods

Dr. Andrew G. Kirk, McGill University, Canada

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Andrew Kirk is a Professor of Electrical and Computer Engineering at McGill University where he leads research into the development of biomedical sensors and point-of-care diagnostic systems. He received the Ph.D. degree in Physics from King's College (London) and was subsequently awarded research fellowships to undertake postdoctoral research at the University of Tokyo, Japan and the Vrije Universiteit, Brussels, Belgium before moving to Montreal. He is author of more than 200 journal articles and conference presentations and holds 4 patents. In 2015 he was awarded the William and Rhea Seath Award for Engineering Innovation by McGill's Faculty of Engineering for his work on new tools for DNA amplification using nanophotonic techniques. The intellectual property that he has developed has now been licensed commercially to develop a high-speed diagnostic test for the SARS-Cov-2 virus. He is also a committed teacher, having twice been awarded the Principal's Prize for Excellence in Teaching at McGill. He has served as Chair of the Department of Electrical and Computer Engineering and Director of the McGill Institute for Advanced Materials (MIAM) and has previously served as Interim Dean of Engineering and Associate Dean for Research and Graduate Education in the Faculty of Engineering.

KEYNOTE SPEAKER

Titles: The importance of Integration of AI, Brain Neuro-Imaging Machine Vision, Peripheral Blood Gene Expressions, and Genomics for Better Prognosis and Diagnosis Predictions of Alzheimer's Disease

Dr. Dalila B. Megherbi, University of assachusetts Lowell, USA

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Dalila B. Megherbi obtained her Diplome Ingenieur d'Etat in Computer Engineering from the Ecole Nationale Polytechnique with the highest honors, received the Sc.M in Computer Engineering, the Sc.M in Applied Mathematics, and the Ph.D. in Electrical and Computer Engineering from Brown University. After working in the industry, including in the defense industry, she joined academia and joined the Department of Electrical and Computer Engineering at the University of Massachusetts Lowell, where she is currently a tenured faculty and the Director of the Research Center for Computer Machine/Human Intelligence Networking and Distributed Systems (CMINDS) that she founded, (https://www.uml.edu/Research/CMINDS/). Her research is internationally recognized. She holds more than >140 refereed peer-reviewed publication articles, including in the IEEE and the prestigious Nature Biotechnology. She holds US patent. She has been the recipient of numerous research grants and contracts, as the primary lead principal investigator, from several federal agencies and the industry, including DOD AFRL/WPAB, NSF, US FDA, NIH, Raytheon Air Missile Defense Systems, Xilinx Inc., Structural Dynamics Research Corporation, SUN Microsystems/Oracle, Altera Inc., and Sky Computers Inc. She graduated more than 42 UML graduate Ph.D. and MS thesis option students. She serves as associate editor and member of the editorial boards and reviewer for a dozen of journals, including IEEE transactions. She was invited to serve as a General Chair for the 2018 IEEE CIVEMSA International Conference.

KEYNOTE SPEAKER

Titles: The importance of Integration of AI, Brain Neuro-Imaging Machine Vision, Peripheral Blood Gene Expressions, and Genomics for Better Prognosis and Diagnosis Predictions of Alzheimer's Disease

Dr. Dalila B. Megherbi, University of assachusetts Lowell, USA

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Dalila B. Megherbi obtained her Diplome Ingenieur d'Etat in Computer Engineering from the Ecole Nationale Polytechnique with the highest honors, received the Sc.M in Computer Engineering, the Sc.M in Applied Mathematics, and the Ph.D. in Electrical and Computer Engineering from Brown University. After working in the industry, including in the defense industry, she joined academia and joined the Department of Electrical and Computer Engineering at the University of Massachusetts Lowell, where she is currently a tenured faculty and the Director of the Research Center for Computer Machine/Human Intelligence Networking and Distributed Systems (CMINDS) that she founded, (https://www.uml.edu/Research/CMINDS/). Her research is internationally recognized. She holds more than >140 refereed peer-reviewed publication articles, including in the IEEE and the prestigious Nature Biotechnology. She holds US patent. She has been the recipient of numerous research grants and contracts, as the primary lead principal investigator, from several federal agencies and the industry, including DOD AFRL/WPAB, NSF, US FDA, NIH, Raytheon Air Missile Defense Systems, Xilinx Inc., Structural Dynamics Research Corporation, SUN Microsystems/Oracle, Altera Inc., and Sky Computers Inc. She graduated more than 42 UML graduate Ph.D. and MS thesis option students. She serves as associate editor and member of the editorial boards and reviewer for a dozen of journals, including IEEE transactions. She was invited to serve as a General Chair for the 2018 IEEE CIVEMSA International Conference.

KEYNOTE SPEAKER

Titles: Space-Based Solar Power: From the Realm of Science Fiction to Reality

Dr. Omar M. Ramahi, University of Waterloo, Canada

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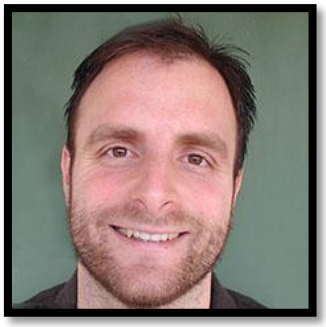
Omar M. Ramahi received the B.S. degree in mathematics and electrical and computer engineering (Highest Honors) from Oregon State University, Corvallis, OR, USA, and the Ph.D. degree in electrical and computer engineering from the University of Illinois at UrbanaChampaign, Champaign, IL, USA. From 1993 to 2000, he was with Digital Equipment Corporation (currently, HP), where he was a Member of Alpha Server Product Development Group. In 2000, he joined the Faculty of the James Clark School of Engineering, University of Maryland, College Park, MD, USA, as an Assistant Professor and then as a tenured Associate Professor. He was also a Faculty Member of the CALCE Electronic Products and Systems Center, University of Maryland and the director of the Electromagnetic Interference and Compatibility Laboratory. He is currently a Professor with the Electrical and Computer Engineering Department, University of Waterloo, Waterloo, ON, Canada. He is also the director of the Advanced Concepts Laboratory. He has authored and coauthored more than 450 journal and conference technical papers on topics related to the electromagnetic phenomena and computational methods. He is a co-author of the book EMI/EMC Computational Modelin Handbook. He served as Associate Editor for the IEEE Transactions on Advanced Packaging and Guest Editor of Sensors. He is the winner of the 2004 University of Maryland Pi Tau Sigma Purple Cam Shaft Award. He won the Excellent Paper Award in the 2004 International Symposium on Electromagnetic Compatibility, Sendai, Japan, and the 2010 University of Waterloo Award for Excellence in Graduate Supervision. In 2012, he was awarded the IEEE Electromagnetic Compatibility Society Technical Achievement Award. Professor Ramahi is a co-founder of Applied Electromagnetic Technologies, USA, and Wave Intelligence Inc., Canada.

KEYNOTE SPEAKER



Titles: Blending the Physical and the Virtual: Multi-Modal Human-Computer Interaction for Music

Dr. George Tzanetakis, University of Victoria, Canada

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George Tzanetakis is a Professor in the Department of Computer Science with cross-listed appointments in ECE and Music at the University of Victoria, Canada. He was a Canada Research Chair (Tier II) in the Computer Analysis and Audio and Music between 2010 and 2020 and received the Craigdaroch research award in artistic expression at the University of Victoria in 2012. In 2011 he was Visiting Faculty at Google Research. He received his PhD in Computer Science at Princeton University in 2002 and was a Post-Doctoral fellow at Carnegie Mellon University in 2002-2003. His research spans all stages of audio content analysis such as feature extraction, segmentation, classification with specific emphasis on music information retrieval. His pioneering work on musical genre classification received a IEEE signal processing society young author award and is frequently cited. More recently he has been exploring new interfaces for musical expression, music robotics, computational ethnomusicology, and computer-assisted music instrument tutoring. These interdisciplinary activities combine ideas from signal processing, perception, machine learning, sensors, actuators and human-computer interaction with the connecting theme of making computers better understand music to create more effective interactions with musicians and listeners (http://www.cs.uvic.ca/~gtzan).

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The following papers were presented at the 9th World Congress on Civil, Structural, and Environmental Engineering.

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Infant Cry Signal Detection And Classification Using Deep Learning
Authors: Omnia Badr eldine, Nagia Ghanem, Mohamed Selim, Nagwa El-Makky

EEG Microstate-specific Functional Connectivity analysis During Health Aging
Authors: Wang Wan, Zhilin Gao, Zhongze Gu, Xingran Cui

Comparative Assessment Of Prosthetic Biomaterials For Cardiac Applications
Authors: Danila Vella, Parnaz Boodagh, Laura Modica de Mohac, Sang-Ho Ye, Federica Cosentino, Federica Scaglione, William Wagner, Antonio D'Amore and Gaetano Burriesci

The Effect of the Imaging Parameters on the Performance of Coherence Factor in Plane-Wave Imaging
Authors: Zainab Alomari

A Computational Simulation of the Urine Output Flow Rate
Authors: Poupak Kermani

Non-invasive Assessment of Diabetes from sub- Heart Rate Variability: Coherence with HbA1c Test
Authors: Debadutta Subudhi, M Manivannan, K K Deepak

Early Epileptic Seizure Prediction Using EEG Signals with Machine Learning
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Classification of Auditory Oddball Evoked Potentials using Group Task Related Component Analysis
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Intrinsically Photosensitive Retinal Ganglion Cells Targeted Chromatic Pupillometry Using A Ring Light Stimulus
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Multimodal Arrhythmia Classification Using Deep Neural Networks
Authors: Ioana Cretu, Alexander Tindale, Maysam Abbod, Ashraf Khir, Wamadeva Balachandran, Hongying Meng

Computational Fluid Dynamics Analysis of Blood Flow in Cerebral Mycotic Aneurysms
Authors: Asif S, B. J. Sudhir, B. S. V. Patnaik, Ram K. Nekkanti, Ganesh Divakar, Kesavapisharady Krishnakumar, Sam Scaria

Fluid Movement in Porous Bone via Blood Pressure: A Porous Media Theory
Authors: Kasra Soleimani, Ahmad Ghasemloonia, Les Jozef Sudak

Workflow and Clinical Implementation of a Simulation Method for the Analysis of Hemodynamics and Structural Mechanics of Cerebral Aneurysms
Authors: Jozsef Nagy, Matthias Gmeiner, Veronika Miron, Julia Maier, Wolfgang Fenz, Zoltan Major, Andreas Gruber

EEG Channel Selection Method for Subject-Independent Motor Imagery Classification using Shapley Additive exPlanations
Authors: Vishnupriya R, Neethu Robinson, Ramasubba Reddy M

Front-End Circuit For Six ECG Precordial Leads, With Signal Processing And Graphic Interface
Authors: Valentina Bastida, Marco S. Estrada

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Predicting the COVID-19 Pandemic Spread: An Analysis Using ARX and ARMAX Models
Authors: Cristina-Maria Stancioi, Vlad Muresan, Iulia Clitan, Mihail Abrudean, Mihaela-Ligia Unguresan

A Prediction Algorithm For Fall Risk Assessment Among Community-Dwelling Elderly People
Authors: Manila Caragiuli, Agnese Brunzini, Michele Germani, Chiara Mazzoni, Pietro Scendoni

In-Vivo Animal Trial of a Fiber-Optic Pressure Sensor Probe with Distributed Sensing Points for the Diagnosis of Lumbar Spinal Stenosis
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Anomalous Signal Characterization Using Kalman Filter-Based Spectral Quantification and Bayesian Statistical Diagnostics
Authors: Nicholas V. Scott

Dempster-Shafer Evidential Theory Belief Amalgamation and Dynamic Programming Supporting Soldier Squadron Adversarial Engagement: Simulation-Based Decision-Making
Authors: Nicholas V. Scott, Bradon Thymes, and Joseph P. Salisbury

Manifold Learning and Bayesian Characterization of Computer Network Traffic Supporting Machine Learning-Based Cyber System Protection
Authors: Nicholas V. Scott and Jack McCarthy

Revamping Bolt Inspection in Oil and Gas Industry: Edge-Deployed Robotic Machine Vision Model applying Knowledge Distillation
Authors: Vijeth Kumar, Malathi Murugesan, Giacomo Veneri

Automated Identification of Make and Model of Total Wrist Replacement Implants using Deep Learning
Saisha Shetty, Naman Garg, Gayathri M, Malathy C, Vineet Batta (corresponding) , A Ramanathan

Machine Learning Prediction of Structural Response for Slabs Subjected to Blast Loading
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Adaptable and Efficient Digit Recognition System for Challenging Datasets: A Case Study on Pump Flowmeter Digits
Authors: Mahdis Salehpoor, Mohammad Elsayyed, Witold Kinsner, and Nariman Sepehri

Hybrid Deep Learning Architectures for Stock Market Prediction
Iren Valova, Natacha Gueorguieva, Thakkar Aayushi, Pulluri Nikitha, Hassan Mohamed

Deep Learning Mobile Algorithms for Detection of Skin Cancer
Iren Valova, Peter Dinh, Natacha Gueorguieva

Identification of Knee Prostheses from Lateral Radiographs Using Deep Learning Techniques
Authors: Johny Samuael S, Neil Bagewadi, Malathy C, Balasaraswathi VR, Gayathri M, Vineet Batta , A Ramanathan

The Influence of Line Length: A Pilot Study
Ana Rita o Teixeira, Sónia Brito-Costa, Maria Antunes, Sílvia Espada

Behavioral Differences And Impact Of Lowercase And Uppercase Letters On Reading Performance
Ana Rita Teixeira, Sónia Brito-Costa, Maria Antunes, Sílvia Espada

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Authors: Greg Barish, Lauren Marlotte, Miguel Drayton, Catherine Mogil, Patricia Lester

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Fine-Tuned PEGASUS: Exploring the Performance of the Transformer-Based Model on a Diverse Text Summarization Dataset
Mohammed Alsuhaibani

Constructing and Analysing the MalaySarc Dataset: A Resource for Detecting and Understanding Sarcasm in Malay Language
Suziane Haslinda Suhaimi, Nur Azaliah Abu Bakar, Nurulhuda Firdaus Mohd. Azmi

The Influence of Subcutaneous Fat Layer on sEMG Signals during Fatiguing Isometric Contractions in Young Males
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A New Approach to Processing Semantic Heterogeneity in Adapted Multimedia Documents Based on Ontology Alignment
Authors: Farida Bettou

Real-time Interfacing of a Pneumatically-actuated Finger-thumb Rehabilitation Device
Authors: Narges Ghobadi, Mohsen Khajoee, Witold Kinsner, Tony Szturm, Nariman Sepehri

Real-time Interfacing of a Single-Rod Electrohydrostatically Actuated Excavator Machine
Authors: Hossam Elwehishy, Saeid Parvanesekam, Witold Kinsner, Nariman Sepehri

Can We Avoid Filter Bubbles or Only Burst Them? A Natural Experiment Investigating Filter Bubbles in Non-Personalised Content Feeds
Authors: Krishnamoorthy, Möhlmann, Henfridsson, Yaraghi

Assessment of the Impact of a Privacy Policy Change on User Behavior and Marketing effects in Online Applications
Authors: Eunah Cho, Qiang Gao

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Authors: Puneet Pandey, Bhavnesh Jaint, Garima Mann

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Control of Cascaded PV-Ćuk Converter Modules by Particle Swarm Optimization under Partial Shading Conditions
Authors: Mohamed Etarhouni, Benjamin Chong Gegeo

Deep Reinforcement Learning-Based Governor for Pumped Storage Hydropower
Authors: Innocent Enyekwe, Wenlei Bai, Kwang Y. Lee, Soumyadeep Nag

Wideband Notched Balun with Bandpass Filtering Characteristic using Liquid Crystal Polymer Technology
Authors: Khaled Aliqab Gegeo

Multi-Material 3D Printing of Highly Sensitive Flexible Multi-Layered Tactile Sensors
Authors: Meshari Alsharari Gegeo

Speedup of Extended Kalman Filter due to Gain Elimination
Authors: Nicholas Assimakis, Maria Adam

Feasibility Studies on the Proposed Developments to Be Added In the Existing Electrical Network by Using ETAP
Authors: Krishnav Bhatia

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Authors: Munirah Aldossary, Fadia El Hamami, Lamya Al Qahtani, Ahmed Abul Hussain

Column Generation Methods of Variational Inequalities – An Extension
Authors: William Chung Gegeo

Development of an Optofluidic System for Concentration Measurement of Colorimetric based Solution targeted for Water Quality Assessment
Authors: Fatin Izyani Mohamad Robi, Mohd Rumaizan Maidan Dali, Khairul Azman Ahmad, Saiful Zaimy Yahaya, Mohamad Faizal Abd Rahman

Medical Imaging & Image Processing

Computed Tomography-Based Finite Element Model of the Human Thorax for High-Frequency Chest Compression Therapy
Authors: Arife Uzundurukan, Sébastien Poncet, Daria Camilla Boffito, Philippe Micheau

Qualitative assessment of myocardial gray zone in LGE-CMR imaging
Authors: Maria Narciso, António Ferreira, Pedro Vieira

Remodelling of Cerebral FDG Uptake Kinetics in An Acute Stress-Induced Takotsubo-Type Rat Model
Authors: Alejandro Ariza-Carrasco, Thulaciga Yoganathan, Nesrin Mansouri, José M. Udías-Moinelo, Joaquín L. Herraiz, Bertrand Tavitian and Mailyn Pérez-Liva

Comparison of Manual and Semiautomatic Volume of Interest Drawing For the Analysis of Spinal Cord Myelin Pet Imaging
Authors: Letícia Zorante de Lucena, Milena Sales Pitombeira, Carlos A. Buchpiguel, Daniele de Paula Faria

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What Does A Typical CNN "See" In An Emotional Facial Image?
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A Mitosis Detection and Classification Methodology with YOLOv5 and Fuzzy Classifiers
Authors: Nooshin Nemati, Refik Samet, Emrah Hancer, Zeynep Yildirim, Mohamed Traore

Logistics Box Recognition in Robotic De-Palletizing System with Combination of Cycle-GAN and Mask-RCNN
Authors: Thong P. Nguyen, Seongje Kim, Hyun-Kyo Lim, Doi Van Truong and Jonghun Yoon

An Artificial Intelligence Based Defect Detection System for Transparent Substrate
Authors: Kai-Yu Lin, Pi-Cheng Tung, Chih-Kuang Lin

Automatic Detection of Honey in Hive Frames using Deep Learning
Authors: Abigail Paradise Vit, Yarden Aronson

Designing an Inclusive Activity Mediated By Technology and Performative Arts
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Design, Development, and Validation of a Micro-optofluidic Device Able to Measure Drug Release from Drug-loaded Biomaterials
Authors: William Oates, Antonios Anastasiou

Liver Stiffness is Subject to Postural Changes
Authors: Zihao Huang, Yongping Zheng

Evaluation of a low-end VR setup for CROM assessment
Authors: Jose Angel Santos-Paz, Ana Rojo1, Álvaro Sánchez-Picot, Abraham Otero1 and Rodrigo Garcia-Carmona

Effects of Tapered-Strut Design on Corrosion Resistance for Biodegradable Magnesium Stents
Authors: Li-Han Lin, Tzu-Yuan Wang, Hao-Ming Hsiao

Characterization of Temporary Dental Crown Materials Prepared by Different Digital Technologies
Authors: Omar Alageel

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SPONSORS

International ASET Inc. would like to thank the following sponsors for their support of CSEE 2023:

BMEF

A SCIENCE PARTNER JOURNAL

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JOURNAL PUBLICATION

- **Accepted papers may be published in one of these journals after the 2nd peer review process:**
- **JBEB - Journal of Biomedical Engineering and Biosciences**
- **JMIDS - Journal of Machine Intelligence and Data Science**
- These journals have adopted to the open-access model, meaning all free access to the journals articles and content with no need for subscription. This ensures larger audience and therefore higher citations.
- All published papers for JBEB and JMIDS will be submitted to Google Scholar. Additionally, they will be permanently archived in Portico (one of the largest community-supported digital archives in the world) and will be assigned unique DOIs.

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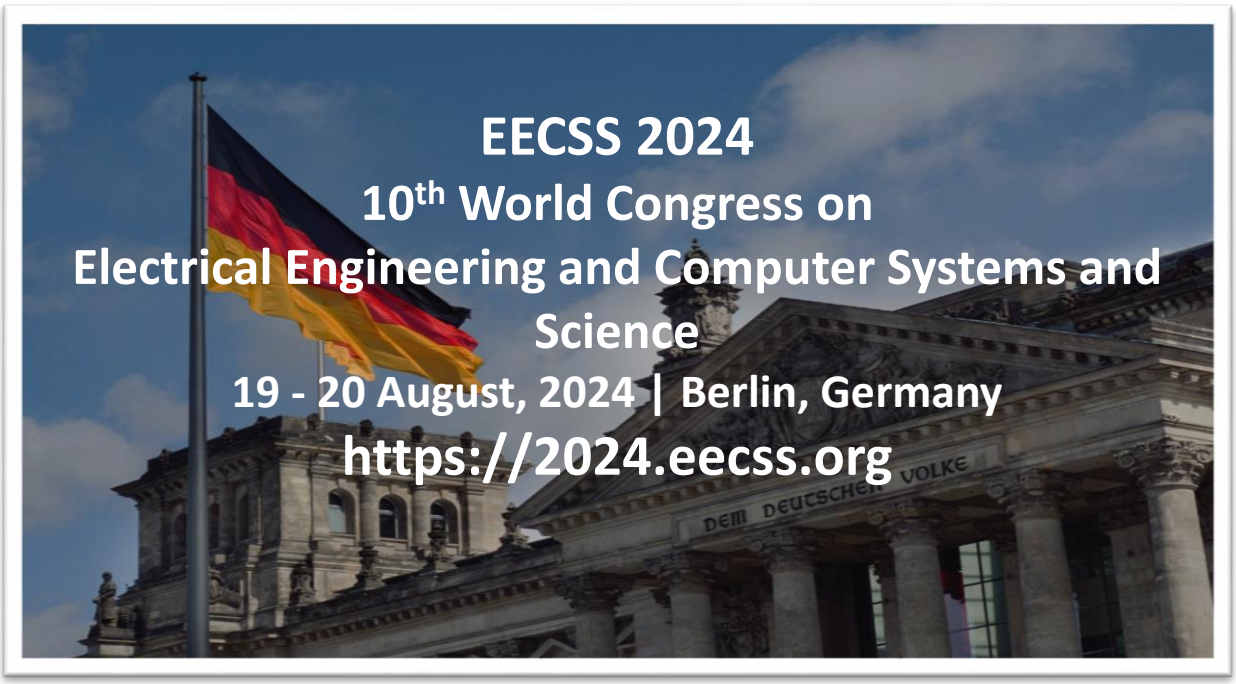
EECSS'23

The 10th World Congress on Electrical Engineering and Computer Systems and Science (EECSS 2024) will be held on August, 2024 in Berlin, Germany.



For inquiries and to obtain further information on the congress, please visit the website

You can also email info@eecss.org or call us

at: +1-613-834-9999

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ETHICS & MALPRACTICE

At International ASET Inc., we take matters that relate to ethics in publishing very seriously. We believe that the peer-review publication process is a vital building block of academia, and its integrity must be maintained at all costs, which is why every article will be peer-reviewed by several experts in the field. Under peer-review, experts in the related fields are required to provide opinions and comments on the improvements of the submissions.

We are proud of our efforts towards abiding by the guidelines of ethics, integrity, and high standards in publishing.

Following are the ethics guidelines set by the organizers for the authors and the reviewers of the conference:

Scientific Committees

Scientific committees consisting of experts in the fields are established. The committees oversee the peer-review and publication process. To see the scientific committee members, please follow the link: Scientific Committee

Equality and Decisions

One or more reviewer, scientific committee member, or chair, (internal or external), are responsible for evaluating the relevance of the submitted manuscripts to the proceedings, technical and scientific merit, originally, and impact. These evaluations are to be carried out regardless of ethnicity, religion, gender, sexual orientation, political beliefs, and institutions. Successive to peer-review, the Chair has full authority and is solely responsible for the published content and the process thereof.

Confidentiality

Scientific committee member(s) and publishing staff may not disclose manuscripts or their content, directly or indirectly, to anyone other than individuals invited to review the manuscript (whether they accept or not), other reviewers of the same publications, and publishing staff.

Conflicts of Interest

Scientific committee member(s) and publishing staff may not utilize the contents of submitted manuscripts whether accepted or rejected, directly or indirectly for their own research purposes without prior written consent by the authors.

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Reviewers

Contribution to Decisions
In order for final decisions to be made regarding acceptance or rejection of papers, we rely on peer-review. Peer-review is the process of experts in the field reading, understanding, and objectively commenting on submitted papers. Through peer-review, scholars give back to the academic and scientific community by helping the chair(s) make decisions regarding manuscripts.

Promptness
Reviewers should promptly notify the chair(s) if they are unable or unqualified to carry out their reviewing duties. Reviewers should do their best to provide the reviews to the chair(s) as promptly as possible, and within the designated time-frame.

Acknowledgment of Source
The reviewer should notify the chair(s) if they find any similarities in the paper being reviewed and any other work that has been published previously.

Confidentiality
Reviewers must not share the contents of the manuscripts they receive for review, regardless of their decision to review or contents of the review, directly or indirectly, with anyone other than the person who has assigned the review.

Fairness
Reviewers should review manuscripts fairly and objectively, with supporting evidence or arguments, regardless of personal feelings or biases.

Conflicts of Interest:
Invited reviewers should immediately inform the chair(s) in case of a conflict of interest based on competitive, collaborative, personal, family, and other relationships with the authors or people involved in the work.

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Authors

Reporting Standards

The paper being submitted for the proceedings should be based on clear objective, discussion, and references. The findings, data, and the arguments being used in the paper should be accurate. It is author's responsibility to guarantee the authenticity of the data in the paper.

Authorship

Only persons who have significantly contributed to the work and the manuscript can be named authors on a paper. These contributions include the idea/concept, design, experiments, evaluation, analysis, drafting or revision of the manuscript, and others. Authors must all have agreed to be named as such and for the manuscript to be submitted. Anyone who has contributed based on the above, but the level of contribution is not significant, may appear in the acknowledgement section of the manuscript.

Acknowledgement of Source

Acknowledgement to other's work being used in the paper must be given at all times. Authors of the paper should give comprehensive credit where it is necessary, by citing the work, they use for supporting their own research.

Accuracy, Originality, and Plagiarism

Authors should describe their work and the results of their work accurately and in full. The level of provided accuracy and detail should be such that a reader can replicate the work independently. Inaccurate, incomplete, fraudulent, and misleading statements are considered unacceptable and unethical. Direct or indirect use of other people's work is not allowed, unless properly cited. Previous works that have influenced the current work should also be cited. Presenting someone else's work as one's own is strictly prohibited and is considered plagiarism.

Data and Material

Authors are encouraged to share their data, software, or other sharable material online, provided copyright and ownership laws surrounding that particular project permit. Authors may also be asked to share such material with the chair(s), and/or reviewers, and must be willing to do so if asked.

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Authors must notify the chair(s) at the time of submission, if any factor outside the scope of the research has influenced any step of the work and manuscript writing. Examples of such factors include but are not limited to funding, grants, advisory and consultancy, stock ownership, current or past employment, and memberships, among others. All funding sources should be disclosed in the manuscript.

Animal and Human Subjects

Works involving human and/or animal subjects must ensure that the work has abided by institutional guidelines, and pre-approved by required bodies. Moreover, consent must be acquired from participants, and privacy of subjects must be ensured. All of the above must be specified with clear statements in the manuscript.

Hazardous Material

It should clearly be identified in the manuscripts if the works have involved hazardous chemicals and material, or devices that can be harmful.

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If an author identifies a major error in a published paper, he/she must immediately inform the publisher. Regardless of whether a significant error is reported by the authors of the work or other readers, authors are obligated to take the necessary steps to correct the issue. It is decided on a case-by-case basis whether an erratum will be submitted to notify future readers of the error and correction, or whether the paper will be retracted. Unethical/plagiarism issues mostly result in a retraction, while unintended mistakes will mostly result in the publication of an erratum.

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Publisher

Errata and Retractions

The publisher takes the necessary steps to prevent mistakes, academic and scientific misconduct, and unethical behavior, both intended and unintended. When mistakes are reported, the publisher works with chair(s) and authors to publish an erratum clarifying the issue. In cases where the mistakes are severe and significant, the paper might be retracted. If unethical behavior, plagiarism, academic and scientific misconduct, or other such activities are proven to have taken place by an author or authors, the publisher will retract the paper.

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