INVITED SESSIONS BEING ORGANIZED IN THE CONTEXT OF WMSCI 2020 AND ITS COLLOCATED EVENTS

Invited Session on *"Biomedical Engineering"*

Being Organized by

Professor Shigehiro Hashimoto, Japan, Kogakuin University, Dean, Faculty of Engineering, Former Associate to the President, Doctor of Engineering and Doctor of Medicine, Research Area: Biomedical Engineering.

Dr. Shigehiro Hashimoto now is a professor of Biomedical Engineering, Dean, Faculty of Engineering of Kogakuin University, Tokyo, Japan. He got his Bachelor of Engineering in Mechanical Physics (1979), and Master of Engineering at Tokyo Institute of Technology (1981), Tokyo, Doctor of Medicine at Kitasato University (1987), Sagamihara, and Doctor of Engineering at Tokyo Institute of Technology (1990), Tokyo.

He was Research Associate in School of Medicine (1981-1989), and Assistant Professor in School of Medicine (1989 -1994), at Kitasato University, Associate Professor in the Department of Electronics (1994- 2001), and Professor at Osaka Institute of Technology (2001-2011). He also was the Creator of the first Department of Biomedical Engineering in Japan at Osaka Institute of Technology (2005) and Director of its Medical Engineering Research Center (2005-2011). He was Associate to President and Dean of Admissions Center at Kogakuin University, Tokyo (2012-2018). He experienced internship in Research Center for Artificial Heart in Free University in Berlin (1977). He is the author of the books of "Introduction to Biosystems Engineering (1996)", "Introduction to Biomedical Measurement Engineering (2000)", and "Introduction to Biomechanical Engineering (2013)". His present researches focus on bio-cellular mechanics study using micro-machined flow channel. shashimoto@cc.kogakuin.ac.jp http://www.mech.kogakuin.ac.jp/labs/bio/

Professor Hashimoto has been organizing yearly invited sessions for about 18 years. He also has been a plenary keynote speaker for many years. Below, we list the abstracts and the videos of his latest plenary keynote addresses.

Cross Cultural Seminar Inspires Multidisciplinary Learning: from Biomedical Engineering to Gerontechnology (Presented at WMSCI 2018)

Abstract: The term of "Gerontechnology" is used as an interdisciplinary field combining gerontology and technology. Gerontology is picked up in the aging society in the world. In Japan, for example, the generation balance will change in a few years. A variety of technology, on the other hand, will help the ageing society, including assistive technology. In "Biomedical Engineering", the human being is analyzed by the engineering methodology, and the engineered design is applied to the human being. Between the engineered system and biological system, the

interface has been studied and the collaborative system has been designed. You can find out the same base of philosophy between "Biomedical Engineering" and "Gerontechnology". The effectiveness of the cross cultural seminar on multidisciplinary learning has been discussed in relation to "Biomedical Engineering" and "Gerontechnology". Several multidisciplinary learning programs have been practiced in the biomedical engineering field: in Japan, in Thailand, and in USA. Some of them are cross-cultural student-seminars. They have learned how to communicate with students, who have a variety of studying backgrounds and a variety of cultural backgrounds. The training awakes students to several points: thinking from a different point of view, and using various communication tools. The process extends the communication skill, and helps cross-cultural understandings, and compensate the gap of generation.

Video: http://www.iiis.org/ViewVideo2018.asp?id=14

Multidisciplinary Learning Extends Communication Skill, and Helps Cross Cultural Understandings: Biomedical Engineering (Presented at WMSCI 2017)

Abstract: Multidisciplinary learning has been discussed in relation to cross- cultural understandings. "Biomedical engineering" is exemplified for the multidisciplinary field. "Biomedical Engineering" is the multidisciplinary research area, which includes biology, medicine, engineering, and others. Several learning programs have been tried in the biomedical engineering field: in Japan, in Thailand, and in USA. Some of them are cross-cultural student seminars on biomedical engineering. In the group work, students are divided into the small cross-cultural groups. Each group finds a problem, methods to solve the problem, contribution to the society. Presentations are made of slides in reference to information in the internet. They have learned how to communicate with students, who has not only variety of studying backgrounds but also variety of cultural backgrounds. The training awakes in students several points: thinking from a different point of view, using various communication tools. The process extends the communication skill, and helps cross-cultural understandings.

Video: http://www.iiis.org/ViewVideo2017.asp?id=9

Purpose:

To bring together academics, researchers and professionals, from different disiplines, for inter-disciplinary communication in the inter-disciplinary field of "Biomedical Engineering". The field will give a chance to learn inter-disciplinary communication, and encourage persons in young generation (including students) to create the global society with diversity.

Deadlines: (**you may ask the invited session organizer for any deadline extension**)

Please, submit your article to shashimoto@cc.kogakuin.ac.jp according to the following deadlines.

Authors must submit their abstracts and, if accepted, they have to send the full paper. The deadline for an abstract is June 30th, 2020; the acceptance will be notified not later than July 20th, 2020. The deadline for the full paper (not for abstracts accepted only for oral presentation) is

July 29th, 2020. Regarding abstracts and full papers, authors shall refer to the format as explained here:

http://www.iiis-spring20.org/imcic/Website/default.asp?vc=26

Topics: The following are suggested, not exclusionary, topics.

• Biomechanics, Cellular-mechanics
• Biomeasurement
• Artificial Organs

Contribution Types

• Regular papers: which, if accepted by the invited session organizer, will be included in the conference proceedings
• For-Presentation-Only: abstracts; which, if accepted by the invited session organizer, will be included in the conference program, but not in the conference proceedings.
• Presentations: slide only, which, if accepted by organizer their respective presentation will be included in the conference program.

Submissions under reviews, up to the present

1) Alignment of Myoblast Cultured on Micro Striped Ridge After Centrifuge Stimulation: Before and After Division.
2) Tracings of Myoblasts Orientation under Shear Flow In Vitro.
3) Velocity of Flowing Myoblast Cell at Oblique Micro Grooves.
4) Cultured Myoblasts Orientation under Couette Type of Shear Flow between Parallel Disks: Fusion and Division.
5) Measurement of Repetitive Contraction of Myotubes by Local Movement of Micro-markers on Thin Film of Scaffold.
6) Migration Velocity of Cell under Shear Flow Field: After and Before Division of L929 and 3T3-L1.
7) Design of Flow Channel for Cell Sorter by Dielectrophoresis with Photolithography Technique: Before and After Division.

Invited Session on
"Inter-Disciplinary Research, Education, and Communication "

__Being organized by__

Dr. Nagib Callaos, USA, International Institute of Informatics and Systemics, Editor-in-Chief of the Journal of Systemics, Cybernetics and Informatics

Dr. Nagib Callaos graduated from the University of Texas at Austin, as MSc in Electrical Engineering and a PhD in Operations Research. His thesis included the Solution of the Condorcet, or Voter, Paradox that, by then (1975), had 165 years with no solution. Dr. Callaos solution opposed the Impossibility Theorem of Keneth Arrow (Nobel Prize) who mathematically "proved" that this paradox has no solution. Dr. Callaos showed, in this thesis, the internal inconsistencies among some axioms used by Kenneth Arrow. After completing his PhD, he had about five years of the equivalent to full time post-doctorate formal studies in Philosophy.

He was for about 30 years professor, mainly, of Operations Research, Information Systems, Software Engineering, and Decision Support Systems at The University Simón Bolivar, where he was also He was, also Dean of Research of the University. He is the Founding President of a 32-years-old University Simón Bolivar's Multi-Disciplinary Organization, oriented 1) to solve real life problems; which mostly require multi-disciplinary teams and inter-disciplinary research/communication and 2) to synergistically relate all disciplinary and inter-disciplinary departments of the University Simón Bolivar with private and public corporations. He also was the founding president of several organizations for research, development, and technological innovation and, for many years, consultant in Information Systems and CEO of an Information Systems Development private organization. He is the founding president of The International Institute of Informatics and Systemic, International Insitute of Informatics and Cybernetics (USA), Editor-in-Chief of the Journal of Systemics, Cybernetics and Informatics and of its version in Spanish. He was appointed to organize UNESCO's Systems Congress, in 1981 and, since then, he was the general choir of about 50 conferences and editor (or co-editors) of about 200 books, most of which related to the conferences he organized. He is the CEO and President of the recently founded TIDC (Tran- and Inter-Disciplinary Communication) Publishing, LLC.

Abstract

The importance of Interdisciplinary Research and Education are being increasingly stressed by an increasing number of authors and scientific/academic organizations, and both require processes of Inter-disciplinary Communication. Furthermore, Interdisciplinary research, education, and Communication are inherently related to each other, potentially supported by complexity studies and Information/Communication Technologies, and among the causes of analogical learning, as well as one of its effects.

The meaning with which we are using the phrase "Inter-Disciplinary Research" includes the definition that The national Science Foundation adopted:

> *"Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice."* (National Academy of Science, The National Academy of Engineering, and the Institute of Medicine, of The National Academies, 2004, Facilitating interdisciplinary research. Washington: National Academy Press, p. 2).

Non-exclusionary main areas/Topics are the following (You may contribute, suggesting another area or Topic)

(We will use the acronym IDREC to refer to Inter-Disiplinary Research, Inter-disciplinary Education, Inter-Disciplinary Educations, or any compination of two or the three of them)

- Case Studies of IDREC
- Real life examples of IDREC
- IDREC for Educational, Social, and/or Economic Development
- General or specific Method or methodologies for IDREC
- What is Inter-disciplinary Research, why it is important and/or how to do it.
- What is Inter-disciplinary Education, why it is important and/or how to do it.
- What Inter-Disciplinary Communication (which includes the communication of disciplinary research to other disciplines), why it is important and/or how to do it.
- Relationships between Interdisciplinary Research and Interdisciplinary Education
- Relationships between Inter-disciplinary Research and Inter-disciplinary Communication
- Integration of Inter-disciplinary Research, Education, and Communication
- Relationships between Complexity or Systemics and IDREC
- ICT support of IDREC
- Relationships between IDREC and Analogical thinking and/or Creative Thinking
- Importance and even necessity of using

You can make your submission directly to the organizer: Dr. Nagib Callaos, n.callaos@iiis.org. When making your submission, please, start your email by informing that the submission is for the invited session on "Inter-Disciplinary Research, Education, and Communication "

Deadlines: (you may ask the invited session organizer for any deadline extension)

July 6th, 2020: For Abstracts (200-400 words). If accepted, it would be (face to face or virtually) presented at the conference and included in the conference book. Notification to authors: during the next 6 days after its reception.

July 9th, 2020: For extended abstracts (600-2000 words). If accepted, it would be (face to face or virtually) presented at the conference and included in the conference proceedings, as long as the final version is in the range of 2000-5000 words. Otherwise, it will be included in the conference book. Notification to authors: during the next 12 days after its reception.

August 5th, 2020: For uploading the final version of the paper.

A special issue of the Journal and a printed book (potentially along an eBook)

For this invited session, the final version of the papers presented (face to face or virtually) at the conference, will also be published in a special issue of the journal of Systemics, Cybernetics and Informatics (JSCI) which has been indexed by DOAJ (Directory of Open Access Journals), considered a journals' white list, by the same DOAJ. Consequently, a paper accepted and presented at this invited session will be indexed by SCOPUS (proceedings) and by DOAJ.

If there is no adequate number of papers for a special issue, then the papers will be published in a special section of regular issue. In any case, there will be no additional charge to the author, because this topic has a financial sponsor.

In the case of the special issue, it will be required from the author of each paper

1. To change the format two columns (conference proceedings and regular issues of the journal) to one column format which is the one required for special issues and printed books. In this case, the authors will receive the respective guidelines, which will be similar to the one we posted at http://www.iiisci.org/journal/sci/Contents/special-issues-guidelines.pdf. There may be slight changes required by the publisher of printed copies. The will be no additional

2. To assure an adequate final print editing of the final version. We will provide the author with, at least, two options to fulfill this quality assurance, especially related to having corrected grammatical, spelling and mistyping errors.

3. To assure its publication in a multi-author printed books, to be distributed via Amazon, the article should be written, or re-written, for inter-disciplinary communication, i.e. for a multi-disciplinary readership, comparably to the plenary keynote addresses that has always been delivered for a multi-disciplinary audience.

Journal Publication

For the journal publication, we will strictly apply what has been established in the author guidelines, for about 20 years, and applied by many other conferences and journals, almost unanimously, i.e. _**"The authors are solely and exclusively responsible for editing and formatting their articles."**_ This is explicitly and clearly written right at the beginning, at the INTRODUCTION section on the "Author Guide, for Preparing a Proceedings Paper for WMSCI 2020" posted at http://www.iiis2020.org/wmsci/Contents/AK-WMSCI-2020.docx. Consequently, a necessary condition for any journal publication will require from the author to

have as, at least, one colleague to proofread and/or to be the beta-reader of the final version of the paper if it is going to be published in the journal. The author should acknowledge this kind of support in the first footnote in the first page of the final version of the article. Any other acknowledgement that the author(s) want to do, can be left to the end of the article, as it is usual. All colleagues supporting the last phase of the language editing will be included as members of the editorial board of the respective journal issue,

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Invited Session on
"Human-Computer, Human-Robot and User Experience Technologies"

Being Organized by

Dr. Nirmalya Thakur, USA, University of Cincinnati, Department of Electrical Engineering and Computer Science.

Dr. Nirmalya Thakur's research interests have explored the intersection of Human-Computer Interaction, Big Data, Data Science, 5G, Machine Learning, Artificial Intelligence, Internet of Things, Assistive Systems, Affective Computing and their related applications. He has authored 23 publications in these interrelated fields since 2018. Nirmalya has presented his research in several reputed conferences across the globe including IHIET 2020, IoT 2018, IEMCON 2018, IEEE 5GWF 2018, CCWC 2018 and many others. He is also a Keynote Speaker and will be delivering keynote addresses at BDAW 2020 and ISAIC 2020.

Nirmalya is an active member of the IEEE, ACM, IDF, AIS, IACSIT and ASDF community. He has been and is currently associated with several international conferences as a committee member which include – IEEE SMC 2018, IWAACE 2020, ICBDIE 2020, AICS 2020, ISEITCE 2020, ICAIE 2020, ISBDAS 2020, ICAITA 2020, CISAT 2020, AIEA 2020, SPCS 2020, ICBAIE 2020, MCIS-5G 2020, ICBDSS 2020 and ISAIC 2020. He is associated with a total of 10 journals as an editor/reviewer and serves as a Technical Committee Member for 9 IEEE Societies. He is a recipient of several awards and recognitions for his research-based accomplishments which include the Interdisciplinary Research Fellowship, Risk Management Award and a $5000 award from Office of Research at the University of Cincinnati. To honor his breakthrough research in the field of Computer Science, his biography was included for both online and print publication by Marquis Who's Who last year, who feature the biographies of the most accomplished individuals from different fields from all over the world in their annual publications.

Abstract

This Special Session invites extended abstracts and papers presenting new discoveries, innovative ideas, concepts, theoretical findings, practical solutions, improvements, and novel applications related to the fields of Human-Computer Interaction (HCI), Human-Robot Interaction (HRI) and User Experience (UX) Design and Research.

Topics of interest include, but are not limited to:

- Theoretical Foundations in HCI/HRI
- Trust and Acceptance in HCI/HRI
- Usability Studies and Research in Mobile and Web-based Applications
- Design of Technology for special user groups – elderly, children, disabled etc.
- Computer Supported Cooperative Work
- Prototypes of Interactive Systems with a focus on Human-Centered Design
- HCI and HRI in IoT Environments
- Review of technologies related to HCI, HRI and UX
- Safety and Security in HCI and HRI
- User Studies in HRI
- Psychology and User Behavior Research in HCI and HRI
- Applications of HCI and HRI in healthcare, education, entertainment and games
- HRI Studies for Socially Assistive Robots
- Applications of Artificial Intelligence, Data Mining and Knowledge Visualization in HCI and HRI
- **Any applications or studies of HCI, HRI or UX related to COVID-19**

You can make your submission directly to the organizer: Dr. Nirmalya Thakur, University of Cincinnati, thakurna@mail.uc.edu

Deadlines (<u>you may ask the invited session organizer for any deadline extension</u>)
Paper submission deadline: **July 10, 2020**
Review notification**: July 20, 2020**
Camera Ready submission: **August 3, 2020**
Registration: **August 3, 2020**

<u>A special issue of the Journal and a printed book</u> (potentially along an eBook)

For this invited session, the final version of the papers presented (face to face or virtually) at the conference, will also be published in a special issue of the journal of Systemics, Cybernetics and Informatics (JSCI) which has been indexed by DOAJ (Directory of Open Access Journals), considered a journals' white list, by the same DOAJ. Consequently, a paper accepted and presented at this invited session will be indexed by SCOPUS (proceedings) and by DOAJ.

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SPECIAL ONLINE Invited Session on
Pivoting During a Pandemic: Researching changes to Educational Contexts

Being Organized by

Dr. Bill Muirhead, Canada, University of Ontario Institute ofTechnology

Dr. Muirhead was the founding Associate Provost Academic and is a tenured Associate Professor in the Faculty of Education at ONTechU— (new name 2019). As one of the founding academic members of the University of Ontario Institute of Technology which was established in 2002, Bill was instrumental in designing and creating all aspects of a new university. Over the past 40 years Bill has taught students from Kindergarten to Doctoral levels, taught online and face-to-face and in both rural and urban settings across Canada and overseas. An active researcher, Bill has attracted and participated in more than $8m of funding to support his research.

Dr. Lorayne Robertson, Canada, University of Ontario Institute of Technology.

Dr. Robertson is an Associate Professor in Education at UOIT and has served as Asst. Dean of Policy and Programs, Graduate Director and BEd Director. Her areas of research include equity, technology, school leadership and policy. Prior to accepting a position at UOIT, Dr. Robertson was the Coordinator of Graduate Programs in Leadership and Policy at OISE, the Elementary Practicum Coordinator (OISE/UT) and instructor in the Master of Teaching program (OISE/UT). Lorayne is a former Superintendent, Program Supervisor, and Principal and Education Officer.

Session Description

The current outbreak of the Covid-19 coronavirus across the globe has resulted in media reports of wide spread hospitalizations and tragic outcomes, prompting countries to make difficult decisions to quarantine citizens and close schools. School closures have shifted education to some form of online education. Educators have pivoted to instruction sometimes classified as emergency teaching, with little time for in-depth planning. Some utilized aspects of e-learning, earlier forms of distance education, and some combinations of a-synchronous and synchronous instruction. Teachers and administrators used tools such as video conferencing and applications such as Google Classroom and other instructional applications to bridge from learning at school to learning at home.

The purpose of this invited session is to bridge the research-practice divide and share lessons learned by the pivot to new realities, where the student learning is now augmented by online instruction and internet-based resources. Participants in this session are invited to share experiences related to pandemic survival and the barriers encountered such as equity issues and the digital divide; digital privacy; and the re-allocation of resources. Education leaders will also

be asked to share how they have used digital and non-digital means to connect students to local schooling and teachers.

In these extraordinary circumstances, educational leaders are called on to make decisions without prior precedents and in compressed time frames. They are expected to continue to ensure the safety of all members of the school community, and support remote teaching while ensuring that all students can learn from home. This requires complex leadership skills and resilience. This invited session is an opportunity for school leaders to share insights, data and planning perspectives employed during the current pandemic.

Suggested topics include:
- Education policy, programs and curriculum,
- Educational administration,
- Pandemic planning, pandemic realities,
- Online learning, e-learning, emergency learning,
- Resource allocation,
- Students with exceptional needs,
- Crisis management and contingency planning**.**

The Invited Session organizers also lead the Collaboratory for Educational Policy and Leadership (celp.ca) at UOIT, a centre for collaborative research with school districts and leaders. Bill and Lorayne contribute to the Canadian Association of Principals journal.

 Important Dates (you may ask the invited session organizers for any deadline extension)

The In-Person WMSCI Conference will be held September 13-16, 2020, in Orlando Florida.
This SPECIAL Co-located invited session (described above) will be ONLINE: September 13-16, 2020 (one hour each day) in Zoom and hosted by the invited session organizers, Dr. Muirhead and Dr. Lorayne Robertson.

July 15, 2020: Abstracts (400-700 words) are due and should be submitted directly to bill.muirhead@uoit.ca and Lorayne.robertson@uoit.ca. The subject for the email should be "Invited session on Pivoting During a Pandemic."

July 17, 2020: Notification of acceptance of Abstracts and invitation to submit a proceedings paper for the conference.

August 1, 2020: Conference Proceedings Paper (2000-5000) words

Authors must register for the conference by August 5, 2020. Proceedings papers that are received by August 1, 2020, accepted by the conference organizers, and in compliance with the prescribed Author Template will be published in a special issue of the Journal of Systemics, Cybernetics and Informatics (JSCI) which has been indexed by DOAJ (Directory of Open Access Journals), considered a journals' white list, by the same DOAJ. Consequently, a paper accepted and presented at this invited session will be indexed by SCOPUS (proceedings) and by DOAJ.

**Registration for the WMSCI conference must be completed by August 5, 2020.
For this SPECIAL invited session, which is <u>partially financed by the publisher</u>, the registration fee will be US S150 (about $200 CDN)**

<u>A special issue of the Journal and a printed book (potentially along an eBook)</u>

October 31, 2020 Invited/Extended papers due:
Following the conference, authors will be invited to expand the proceedings paper for a multi-disciplinary readership. Accepted invited papers will be included in a special e-book. Papers can be up to 7000 words in length.

For this invited session, the final version of the papers presented (face to face or virtually) at the conference, will also be published in a special issue of the journal of Systemics, Cybernetics and Informatics (JSCI) which has been indexed by DOAJ (Directory of Open Access Journals), considered a journals' white list, by the same DOAJ. Consequently, a paper accepted and presented at this invited session will be indexed by SCOPUS (proceedings) and by DOAJ.

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3. To assure its publication in a multi-author printed books, to be distributed via Amazon, the article should be written, or re-written, for inter-disciplinary communication, i.e. for a multi-disciplinary readership, comparably to the plenary keynote addresses that has always been delivered for a multi-disciplinary audience.

Journal Publication

For the journal publication, we will strictly apply what has been established in the author guidelines, for about 20 years, and applied by many other conferences and journals, almost unanimously, i.e. ***"The authors are solely and exclusively responsible for editing and formatting their articles."*** This is explicitly and clearly written right at the beginning, at the INTRODUCTION section on the "Author Guide, for Preparing a Proceedings Paper for WMSCI 2020" posted at http://www.iiis2020.org/wmsci/Contents/AK-WMSCI-2020.docx.

Consequently, a necessary condition for any journal publication will require from the author to have as, at least, one colleague to proofread and/or to be the beta-reader of the final version of the paper if it is going to be published in the journal. The author should acknowledge this kind of support in the first footnote in the first page of the final version of the article. Any other acknowledgement that the author(s) want to do, can be left to the end of the article, as it is usual. All colleagues supporting the last phase of the language editing will be included as members of the editorial board of the respective journal issue,

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Final Versions of the papers of this invited session to be published in the journal, should be sent by October 31, 2020 to **Dr Bill Muirhead at** bill.muirhead@uoit.ca **and Dr. Lorayne Robertson** Lorayne.robertson@uoit.ca

Invited Session on
"Artificial Intelligence and Image Processing for Security Applications"

Being Organized by

Professor and Head Rajanikanth Aluvalu, India, Vardhaman College of Engineering, Hyderabad, Tresearurer ,IEEE Computer society,Hyderabad Section, Former Secretary ,IEEE Computer Society,Hyderabad Section, President Institute Innovation cell,Coordinator , Business incubator.

Dr. Aluvalu got his Bachelor of Engineering in Computer science and Engineering (2003), and Master of Technology (1981), d Doctoral degree in Engineering(2018).

He was Asssociate Professor in School of Engineering,RK University(2011-2016). Dr.Aluvalu has conducted fundamental research in field of cloud computing security,Big data Analytica and Artcificial Intelligence. His inventive research has resulted in instrumental contributions that are paramount to the field. Dr.Aluvalu organized international conferences such as International Conference on Machine learning and soft computing, 11th International Conference on Soft Computing and Pattern Recognition, SoCPaR 2019, 9th World Congress on Nature and Biologically Inspired Computing (NaBIC 2019). Dr. Aluvalu has also performed as a peer reviewer for various scholarly articles that have been published in journals such as *Journal of information security and applications*, *International Journal of Healthcare Information Systems and Informatics*, *International Journal of Computing and Digital Systems* and conferences such as ICMLC, SPML-2018 DMCIT-2018, ICBDM 2019, a mark of his expert ability to judge the work of others in his field of specialization.

Dr.Aluvalu was the recipient of the IUCEE faculty fellow award in 2018 and Bronze level from Infosys for the year 2015 and 2016.Mr.Aluvalu Delivered sessions for audience at various capacities. He also has been a keynote speaker and author for many years. Below, we list the abstracts of his latest articles.

Abstract:

Network security is a challenging task, as there is a tremendous growth of network -based services and sharing of sensitive information on the network. Intrusion throws a serious risk in the network. Even though many hardeningsystems are developed against intrusions, conventional approaches like firewalls, virtual private networks, and encryption techniques are not enough to provide network security. Intrusion detection is a cyber security mechanism that plays an important role in securing the network. Detection rate and false alarm rate are the challenging issues to design an Intrusion Detection System (IDS). Various data mining techniquesare used to implement network intrusion detection.Classification is a supervised learning which predicts the class label in the data set. Single classifier fails to obtain high accuracy. Base classifiers are not

capable of detecting the attacks accurately. Ensemble classifier is a combination of base classifiers. Ensemble classifier outperforms base classifiers. In this paper, we propose a cluster-based ensemble classifier for IDS. K means clustering is used in the experiment. Ensemble classifier is built using ADTree and KNN. The experimental results show that the proposed ensemble classifier outperforms other classifiers with 99.8% accuracy.

Purpose:

Image processing plays an important role in industrial and scientific security applications, Use of Artificial intelligence will make security applications intelligent. The increased use of Internet, social networks and wireless communication technologies with high quality image streaming, helps us to use the images for developing sophisticated security One of the main objectives of the researcher community is to handle and analyze media data (images or videos) in order to embed or retrieve meaningful information. The necessity to conceal or recover relevant information in images and video have led technological advancements in many domains, such as: face recognition for video surveillance, pattern recognition for monitoring, cryptography to improve information protection, forensics for data verification integrity, people and vehicle tracking, intruder detection and target recognition, among many others. These applications have proven the importance of performing research in this area for continuous innovation. The remarkable number of new emerged methods and the increasing computational power of personal computers have increased the necessity for more efficient and powerful Image Processing methods for Security, bringing greater challenges to the scientific community.
Therefore, researchers are invited to submit outstanding and original unpublished research manuscripts focused on the latest achievements of Artificial Intelligence based Image Processing in Security Applications..

Deadlines: *Please, submit your article to* rajanikanth.aluvalu@gmail.com *according to the following deadlines.* (**you may ask the invited session organizer for any deadline extension**)

Authors must submit their abstracts and, if accepted, they have to send the full paper.
Deadlines:

June 30th, 2020: For Abstracts (200-400 words). If accepted, it would be (face to face or virtually) presented at the conference and included in the conference book. Notification to authors: during the next 6 days after its reception.

July 7th, 2020: For extended abstracts (600-2000 words). If accepted, it would be (face to face or virtually) presented at the conference and included in the conference proceedings, as long as the final version is in the range of 2000-5000 words. Otherwise, it will be included in the conference book. Notification to authors: during the next 12 days after its reception.

August 5th, 2020: For uploading the final version of the paper.

Regarding abstracts and full papers, authors shall refer to the format as explained here:
http://www.iiis-spring20.org/imcic/Website/default.asp?vc=26

<u>*Topics*</u>: The topics of interest are aimed to show continuing efforts provided in the domain of Image Processing for Security applications using Artificial Intelligence. The following are suggested, not exclusionary, topics.

Crime detection and prevention
Facial expression recognition
Image/Video Coding and Compression
Image/Video Cryptography
Watermarking and Steganography
Biometric recognition/forensics
Tracking systems
Security metrics and models
Information Forensics and Security
Surveillance
Image/Video Communications and Networks
Image/Video Storage and Retrieval
Cybersecurity

Contribution Types

- Regular papers: which, if accepted by the invited session organizer, will be included in the conference proceedings
- For-Presentation-Only: abstracts; which, if accepted by the invited session organizer, will be included in the conference program, but not in the conference proceedings.
- Presentations: slide only, which, if accepted by organizer their respective presentation will be included in the conference program.

<u>*A special issue of the Journal and a printed book (potentially along an eBook)*</u>

For this invited session, the final version of the papers presented (face to face or virtually) at the conference, will also be published in a special issue of the journal of Systemics, Cybernetics and Informatics (JSCI) which has been indexed by DOAJ (Directory of Open Access Journals), considered a journals' white list, by the same DOAJ. Consequently, a paper accepted and presented at this invited session will be indexed by SCOPUS (proceedings) and by DOAJ.

If there is no adequate number of papers for a special issue, then the papers will be published in a special session of regular issue. In any case, there will be no additional charge to the author, because this topic has a financial sponsor.

In the case of the special issue, it will be required from the author of each paper

1. To change the format two columns (conference proceedings and regular issues of the journal) to one column format which is the one required for special issues and printed books. In this case, the authors will receive the respective guidelines, which will be similar to the one we posted at

http://www.iiisci.org/journal/sci/Contents/special-issues-guidelines.pdf. There may be slight changes required by the publisher of printed copies. The will be no additional

2. To assure an adequate final print editing of the final version. We will provide the author with, at least, two options to fulfill this quality assurance, especially related to having corrected grammatical, spelling and mistyping errors.

3. To assure its publication in a multi-author printed books, to be distributed via Amazon, the article should be written, or re-written, for inter-disciplinary communication, i.e. for a multi-disciplinary readership, comparably to the plenary keynote addresses that has always been delivered for a multi-disciplinary audience.

Journal Publication

For the journal publication, we will strictly apply what has been established in the author guidelines, for about 20 years, and applied by many other conferences and journals, almost unanimously, i.e. ***"The authors are solely and exclusively responsible for editing and formatting their articles."***. This is explicitly and clearly written right at the beginning, at the INTRODUCTION section on the "Author Guide, for Preparing a Proceedings Paper for WMSCI 2020" posted at http://www.iiis2020.org/wmsci/Contents/AK-WMSCI-2020.docx. Consequently, a necessary condition for any journal publication will require from the author to have as, at least, one colleague to proofread and/or to be the beta-reader of the final version of the paper if it is going to be published in the journal. The author should acknowledge this kind of support in the first footnote in the first page of the final version of the article. Any other acknowledgement that the author(s) want to do, can be left to the end of the article, as it is usual. All colleagues supporting the last phase of the language editing will be included as members of the editorial board of the respective journal issue,

Authors will be required to change the two-column format (conference proceedings and regular issues of the journal) to one-column format which is the one required for special issues and printed books. In this case, the authors will receive the respective guidelines, which will be similar to the one we posted at http://www.iiisci.org/journal/sci/Contents/special-issues-guidelines.pdf. There may be slight changes required by the publisher of printed copies.

Invited Session on *"Computational Intelligence Techniques for Decision Support in Intrusion Detection Systems (IDS)"*

Being organized by

Professor M. Akhil Jabbar, India, Vardhaman College of Engineering, Centre Head at the Computer Science and Engineering Department, and Vice chair, IEEE CS chapter ,Hyderabad Section

Dr. M.A.JABBAR is a **Vice chair, IEEE CS chapter** ,**Hyderabad Section** and Professor and Centre Head at the Computer Science and Engineering Department, Vardhaman College of Engineering, Hyderabad, Telangana, India. He has been teaching for more than 20 years. He obtained Doctor of Philosophy (Ph.D.) from JNTUH.

He published more than 50 papers in various journals and conferences. He is Reviewer for Scopus and SCI journals like Springer, Elsevier, Hindawi, Wiley etc. He served as a Technical committee member for more than 50 international conferences. He is the Editor for 1st ICMLSC 2018 international conference held during 22nd and 23rd June 2018 at Hyderabad and also SCOPAR 2019 and NaBic 2019 Conferences .

Received best faculty researcher award from **CSI Mumbai chapter** and Fossee Labs IIT Bombay and recognized as an outstanding reviewer award from Elsevier.
He is Lifetime member in professional bodies like the Computer Society of India (**Member number: I1501591**) and the Indian Science Congress Association

He is a senior member of IEEE and the Asia Pacific Institute of Science and Engineering (APISE) Hong Kong and also took onto his shoulders the responsibility of being the vice chair of the IEEE Computer Society chapter Hyderabad Section. He is also serving as a member of Machine Intelligence Laboratory, USA (MIRLABS) and Member Internet Society (USA), United States and IET USA, Member in data science society USA, Artificial Intelligence and Machine Learning Society of India (AIML), Bangalore . He is adviser for Mendely community for Research

Awarded with **Quarterly Franklin Membership**" (Membership ID#DH12756) from London Journals Press

Patents published: He published 5 patents (Indian) in machine learning and allied areas.

Books published: Published a book "Heart Disease Data Classification using Data Mining Techniques", with LAP LAMBERT Academic publishing, Mauritius. ISBN NO: 978-613-9-46428-9, Published in April 2019
Abstract:

With the advancement of ICT, Intrusion detection became an emerging area of research. New threats and vulnerabilities are created to attack the network system Intrusion Detection System

(IDS) attempts to identify and notify the activities of users in a network as normal (or) anomaly. Computational intelligence, techniques are widely used to develop IDS models. Computational intelligence techniques are used to help study problems that are difficult to solve using conventional computational methods.

This Special Session invites extended abstracts and papers presenting new discoveries, innovative ideas, and practical solutions, improvements, related to Computational intelligence for Intrusion Detection System.

Topics of interest include, but are not limited to:

1. Neural networks for Intrusion detection systems
2. Deep learning techniques for IDS
3. Evolutionary computational techniques and IDS
4. Fuzzy systems and IDS
5. Swarm Intelligence and IDS
6. Artificial Immune System.
7. Optimization techniques for IDS

You can make your submission directly to the organizer: Dr MA.Jabbar, Professor, Vardhaman College of Engineering to mail id akhiljabbar.meerja@vardhaman.org

Deadlines (<u>you may ask the invited session organizer for any deadline extension</u>)

Paper submission deadline: **July 15, 2020**
Review notification**: July 25, 2020**
Camera Ready submission: **August 3, 2020**
Registration: **August 3, 2020**

<u>A special issue of the Journal and a printed book (potentially along an eBook)</u>

For this invited session, the final version of the papers presented (face to face or virtually) at the conference, will also be published in a special issue of the journal of Systemics, Cybernetics and Informatics (JSCI) which has been indexed by DOAJ (Directory of Open Access Journals), considered a journals' white list, by the same DOAJ. Consequently, a paper accepted and presented at this invited session will be indexed by SCOPUS (proceedings) and by DOAJ.

If there is no adequate number of papers for a special issue, then the papers will be published in a special section of regular issue. In any case, there will be no additional charge to the author, because this topic has a financial sponsor.

In the case of the special issue, it will be required from the author of each paper

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2. To assure an adequate final print editing of the final version. We will provide the author with, at least, two options to fulfill this quality assurance, especially related to having corrected grammatical, spelling and mistyping errors.

3. To assure its publication in a multi-author printed books, to be distributed via Amazon, the article should be written, or re-written, for inter-disciplinary communication, i.e. for a multi-disciplinary readership, comparably to the plenary keynote addresses that has always been delivered for a multi-disciplinary audience.

Journal Publication

For the journal publication, we will strictly apply what has been established in the author guidelines, for about 20 years, and applied by many other conferences and journals, almost unanimously, i.e. ***"The authors are solely and exclusively responsible for editing and formatting their articles."***. This is explicitly and clearly written right at the beginning, at the INTRODUCTION section on the "Author Guide, for Preparing a Proceedings Paper for WMSCI 2020" posted at http://www.iiis2020.org/wmsci/Contents/AK-WMSCI-2020.docx. Consequently, a necessary condition for any journal publication will require from the author to have as, at least, one colleague to proofread and/or to be the beta-reader of the final version of the paper if it is going to be published in the journal. The author should acknowledge this kind of support in the first footnote in the first page of the final version of the article. Any other acknowledgement that the author(s) want to do, can be left to the end of the article, as it is usual. All colleagues supporting the last phase of the language editing will be included as members of the editorial board of the respective journal issue,

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<div align="center">

Invited Session on
"Globalization of Intelligent Plagiarism Deterrent Systems: Need of The Hour"

</div>

<u>***Being organized by***</u>

Dr. Arpana Rawal, India, Faculty of Computer Science & Engineering, Faculty of Computer Science & Engineering, Chaiworman of the Board of Studies

Dr. Arpana Rawal is also Former Head, Department of Information Technology, now a Professor in Department of Computer Science & Engineering at Bhilai Institute of Technology, Durg affiliated to Chhattisgarh Swami Vivekanand Technical University, Bhilai, India. Her graduation is in the discipline of Computer Technology from Nagpur University (1994) and post-graduation in the same discipline from Pt. Ravi Shankar Shukla University, Raipur (2003). She was awarded doctoral degree in the faculty of Computer Science & Engineering on the topic, "*Development of Innovative Machine Learning in Text Document Relevance Ranking*" (2013); the research realm falls very much within the broad field of Machine Learning and Text Mining.

Dr. Arpana Rawal has teaching experience of more than 20 years and research experience of 15 years with current areas of research interest in innovative machine learning techniques to combat high obfuscation levels of plagiarism detection, Natural Language Processing, Text Mining, Temporal Sequence Mining, Educational Data Mining, machine-assisted Recommender Systems, Recognition of Text Document Images, Universal Image Steganalysis, and Database Forensics. One of the research works pursued by Dr. Arpana Rawal and work group was recognized and ranked SECOND in Text Analysis Contest-cum-Conference in year 2013, by NIST, Maryland, USA for working on Slot-Filling logistics, a step towards the successful implementation of extracting machine-assisted model answers for subjective question answering systems.

She has published a number of research publications in various journals and conferences that can be viewed in https://vidwan.inflibnet.ac.in/profile/130139. She has offered consultancy to many real-time live projects for the end-users within and outside

Abstract

With the expansion in the use of the Internet and revolutionizing information sharing and accessing possibilities in diversified domains, preferably research and academia, plagiarism menace has managed to be able to invade into dishonest scribing practices using versatile text document formats. Plagiarism detection has been a matter of concern in alarming levels across almost all the continents of the globe. Several geographic continents have attempted to resolve this problem by incorporating daunting policies and guidelines, identification protocols, albeit confined to their zones. The emergent need of the hour is globalizing uniform and standard set of guidelines, policies, best

practices by encouraging the plagiarism detection research communities across the world to develop and design universally conformed plagiarism deterrent systems. Till date, detecting the originality of content is largely dependent on the potential scopes carried by publicly available plagiarism software and services. Hence, the very theme of the conference track was conceptualised to assimilate, discuss and prioritize sparking ideas and opinions in a kind of talk forum in order to arrive at unanimously accepted set of guidelines, that can even handle higher obfuscation levels of malicious scribing practices that are not easily caught with state-of-art plagiarism detection tools of the era.

Topics: The following are the suggested (but not exclusionary) focal areas on plagiarism deterrent systems for inviting manuscripts in this conference track (*Use the track acronym: GIPDS*)

- Intelligent Plagiarism detection tools and services;
- Policies, guidelines and ethical writing practices for discouraging plagiarised scribing;
- Impact of citation styles on plagiarism-detection systems;
- Geographic-specific case studies on plagiarism awareness campaigns;
- Plagiarism detection system performance and / or performance comparisons;
- Re-defining labels and types in plagiarism taxonomy;
- Severity in plagiarism levels unexplored and unresolved;
- Plagiarism detection metrics and beyond;
- Penalty protocols on committing malicious scribing with plagiarism;
- Comparison of plagiarism detection protocols and more…

You can make your submission directly to the organizer: Dr. Arpana Rawal, Chhattisgarh Swami Vivekanand Technical University, *arpana.rawal@bitdurg.ac.in*. When making your submission, please, start your email by informing that the submission is for the invited session on "*Globalization of Intelligent Plagiarism Deterrent Systems: Need of The Hour*".

Authoring Deadlines: (you may ask the invited session organizer for any deadline extension)

Paper submission deadline: July 15, 2020

Paper Review notification: July 20, 2020

Camera Ready Submission: August 1, 2020

Registration: August 3, 2020

A special issue of the Journal and a printed book (potentially along an eBook)

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2. To assure an adequate final print editing of the final version. We will provide the author with, at least, two options to fulfil this quality assurance, especially related to having corrected grammatical, spelling and mistyping errors.

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Journal Publication

For the journal publication, we will strictly apply what has been established in the author guidelines, for about 20 years, and applied by many other conferences and journals, almost unanimously, i.e. ***"The authors are solely and exclusively responsible for editing and formatting their articles."*** This is explicitly and clearly written right at the beginning, at the INTRODUCTION section on the "Author Guide, for Preparing a Proceedings Paper for WMSCI 2020" posted at http://www.iiis2020.org/wmsci/Contents/AK-WMSCI-2020.docx. Consequently, a necessary condition for any journal publication will require from the author to have as, at least, one colleague to proofread and/or to be the beta-reader of the final version of the paper if it is going to be published in the journal. The author should acknowledge this kind of support in the first footnote in the first page of the final version of the article. Any other acknowledgement that the author(s) want to do, can be left to the end of the article, as it is usual. All colleagues supporting the last phase of the language editing will be included as members of the editorial board of the respective journal issue.

Authors will be required to change the two-column format (conference proceedings and regular issues of the journal) to one-column format which is the one required for special issues and printed books. In this case, the authors will receive the respective guidelines, which will be similar to the one we posted at http://www.iiisci.org/journal/sci/Contents/special-issues-guidelines.pdf. There may be slight changes required by the publisher of printed copies.

Other Invited Sessions that Were Accepted, but their Details has not been received yet.

Dr. Elina Gaile-Sarkane (Latvia), Innovation and Technology Transfer in Emerging Economies

Dr. Marco Lara Gracia, (United States), Internet-Of-Things and Blockchain Applications

Dr. Adriana Paula Fuzeto (Brazil), Startup Based Learning Method Designed for Entrepreneurship Classes

Dr. Naamah Humaidi (Iraq), Effects of Sport Therapy in Mental Health

Dr. Airen Adetimirin (Nigeria), Use of Information and Communication Technologies in Universities

Dr. Arpana Rawal (India), Globalization of Intelligent Plagiarism Deterrent Systems: Need of The Hour

Professor Jyothi Pillai (India), Hybrid Data Mining: Fuelling Platform for Next Generation Intelligent Systems Design

In Spanish or Portuguese

Dr. Daniel Guillermo Cavaller Riva (Argentina), Administración inteligente para el Sector Público, aplicando IA

Dr. Maikel Leyva, (Ecuador), Computational Intelligence Application in Humanities and Social Sciences

Dr. Macri Elaine Colombo (Brazil), A organização dos signos dos materiais didáticos audiovisuais usados com educandos surdos implantados