

UPCOMING CONFERENCES**Bangkok, Thailand, August 23-25, 2015**

Conference Name	Conference Website	Submission Deadline & Email
2015 2nd International Conference on Mechatronics, Electronics and Automation Engineering (ICMEAE 2015)	www.icmeae.net	June 20, 2015 icmeae@saise.org
2015 International Conference on Materials Technologies and Sciences (ICMTS 2015)	www.icmts.org	June 20, 2015 icmts@saise.org
2015 International Conference on Renewable Energy and Development (ICRED 2015)	www.icred.org	June 15, 2015 icred@saise.org

Istanbul, Turkey, September 21-22, 2015

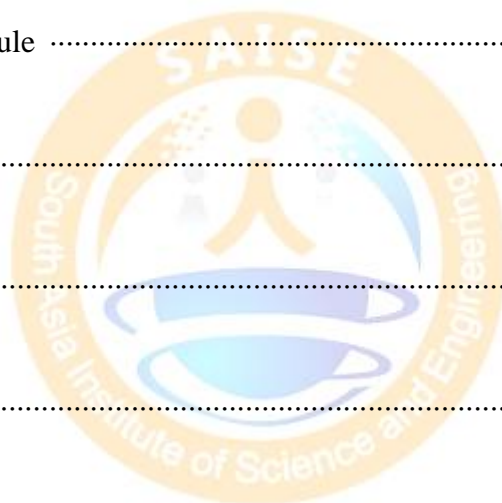
Conference Name	Conference Website	Submission Deadline & Email
2015 International Conference on Smart Material Research (ICSMR 2015)	www.icsmr.org	June 15, 2015 icsmr@saise.org
2015 International Conference on Development of Civil Engineering (ICDCE 2015)	www.icdce.org	June 10, 2015 icdce@saise.org
2015 International Conference on Aeronautic and Astronautics Technologies (ICAAT 2015)	www.icaat.org	June 10, 2015 icaat@saise.org

Dubai, UAE, October 17-18, 2015

Conference Name	Conference Website	Submission Deadline & Email
2015 2nd International Conference on Computer Engineering (ICOCE 2015)	www.icoce.org	May 30, 2015 icoce@saise.org
2015 2nd International Conference on Network Technologies (ICNT 2015)	www.icnt.org	May 25, 2015 icnt@saise.org
2015 6th International Conference on Software and Computing Technology (ICSCT 2015)	www.icsct.org	May 25, 2015 icsct@saise.org

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Welcome to ICSIS 2015 & ICRAI 2015 & ICOEE 2015 in Las Vegas, USA

Welcome to 2015 International Conference on Software and Information Systems (ICSIS 2015) and its two workshops 2015 International Conference on Electronics Engineering (ICOEE 2015) and 2015 International Conference on Robotics and Artificial Intelligence (ICRAI 2015). The aim of ICSIS2015 is to present the latest research and results of scientists related to Software and Information Systems. This conference provide opportunities for delegates' from different areas' to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration. We hope that the conference results constituted significant contribution to the knowledge in these up to date scientific fields. And wish all respected authors and listeners a nice trip in Las Vegas, USA.

Warm Tips:

All papers of ICSIS 2015, both invited and contributed, will be reviewed by two or three experts from the PC. After a careful reviewing process, all registered and presented paper will be published to:

1, Journal of Software (JSW, ISSN 1796-217X), indexed by DBLP, EBSCO, DOAJ, ProQuest, INSPEC, ULRICH's Periodicals Directory, WorldCat, CNKI, etc. (quoted by <http://www.jssoftware.us/>).

2, Journal of Advances in Information Technology (JAIT, ISSN: 1798-2340), indexed by INSPEC; EBSCO; ULRICH's Periodicals Directory; WorldCat; CrossRef; Genamics JournalSeek; Google Scholar; Ovid LinkSolver; etc. (quoted from <http://www.jait.us/>).

All papers of ICOEE 2015, both invited and contributed, will be reviewed by two or three experts from the committees. After a careful reviewing process, all accepted paper will be published to:

1, International Journal of Information and Electronics Engineerin (IJEE, ISSN: 2010-3719), indexed by Google Scholar, Electronic Journals Library, Engineering & Technology Digital Library, Crossref and ProQuest, DOAJ, Ei (INSPEC, IET). (quoted from <http://www.ijee.org/>)

2, International Journal of Electrical Energ (IJOEE, ISSN: 2301-3656), indexed by EI (INSPEC, IET), Ulrich's Periodicals Directory, Google Scholar, EBSCO, Engineering & Technology Digital Library and etc. (quoted from <http://www.ijoe.org/>).

3, International Journal of Signal Processing Systems (IJSPPS, ISSN: 2315-4535), indexed by Ulrich's Periodicals Directory, Google Scholar, EBSCO, Engineering & Technology Digital Library, etc. (quoted from <http://www.ijspss.com/>).

4, Journal of Image and Graphics (JOIG, ISSN: 2301-3699), indexed by Ulrich's Periodicals Directory, Google Scholar, EBSCO, Engineering & Technology Digital Library and Electronic Journals Digital Library. (quoted from

<http://www.joig.org/>).

All papers of ICRAI 2015, both invited and contributed, will be reviewed by two or three experts from the committees. After a careful reviewing process, all accepted paper will be published to:

1,Journal of Computers (JCP, ISSN 1796-203X), indexed by DBLP, EBSCO, DOAJ, ProQuest, INSPEC, ULRICH's Periodicals Directory, WorldCat, CNKI,etc. (quoted from <http://www.jcomputers.us/>).

2,Journal of Automation and Control Engineering (JOACE),ISSN: 2301-3702, indexed by EI (INSPEC, IET), Ulrich's Periodicals Directory, Google Scholar, EBSCO, Engineering & Technology Digital Library and etc.

3, International Journal of Machine Learning and Computing (IJMLC, ISSN: 2010-3700), indexed by Engineering & Technology Digital Library, Google Scholar, Crossref, ProQuest, Electronic Journals Library, DOAJ and EI (INSPEC, IET). (quoted by <http://www.ijmlc.org/>).

- Get your presentation PPT prepared and print out the notification letter before you leave for Las Vegas, USA.
- Pick up the conference materials at the reception desk of conferences in the Main Foyer of Monte Carlo Resort and Casino on May 9, 2015.
- Please attend the conference and arrive the Conference Room before 9:00 a.m. in formal attire on May 10, 2015.
- There will be a group photo and coffee break between 10:35 a.m.-10:50 a.m., May 10; every attendee will be invited to come to the platform to take group photo.
- Copy your PPT to the conference computer before your session begins. One best presentation will be selected from each session, and the best one of each session will be announced and awarded the certificate at the end of each session.
- If you didn't put a formal photo in your registration form, please bring a one-inch formal photo to the venue.

Conference Venue

Monte Carlo Resort and Casino Las Vegas, USA

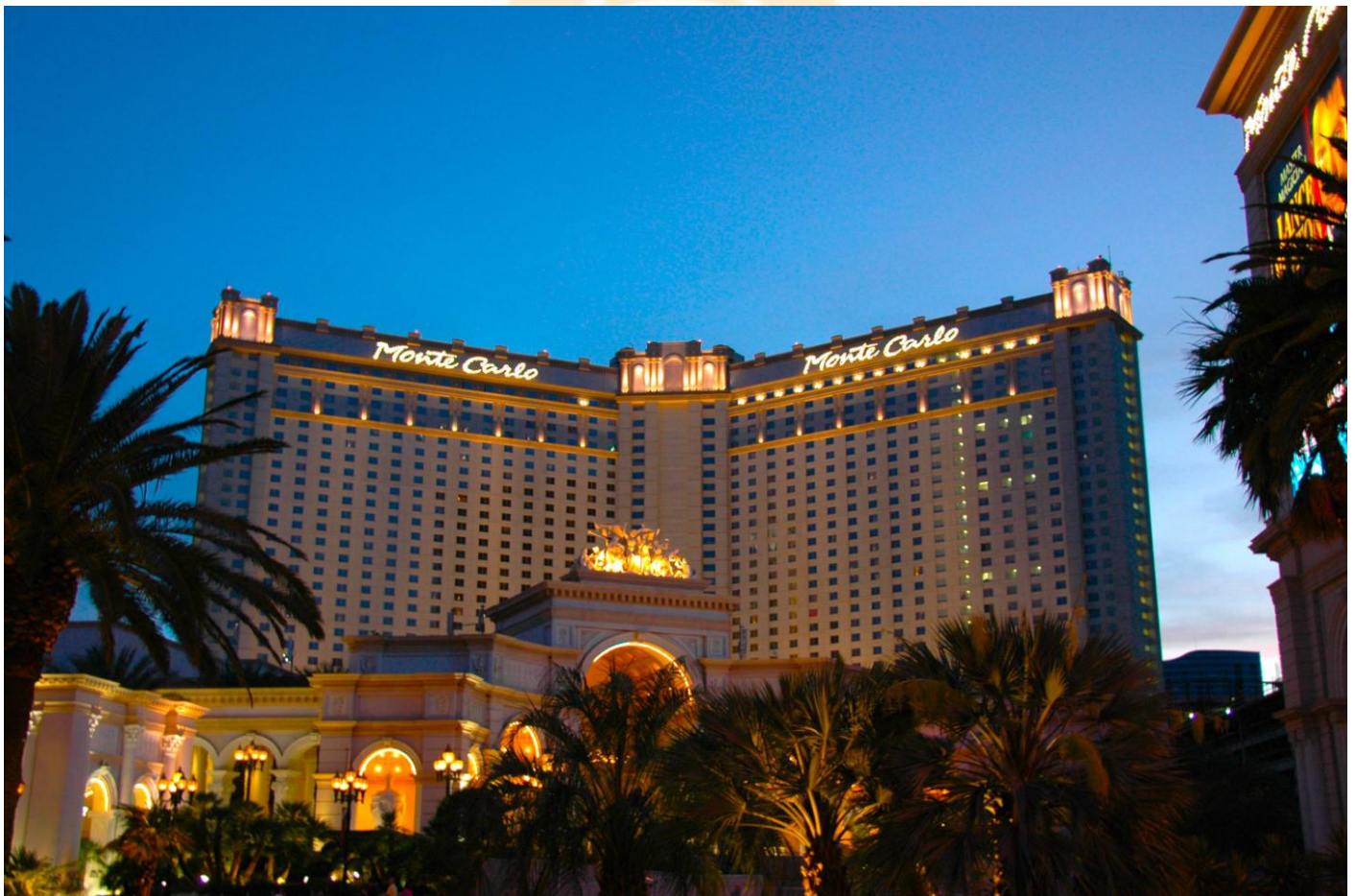


Website: <http://www.montecarlo.com/>

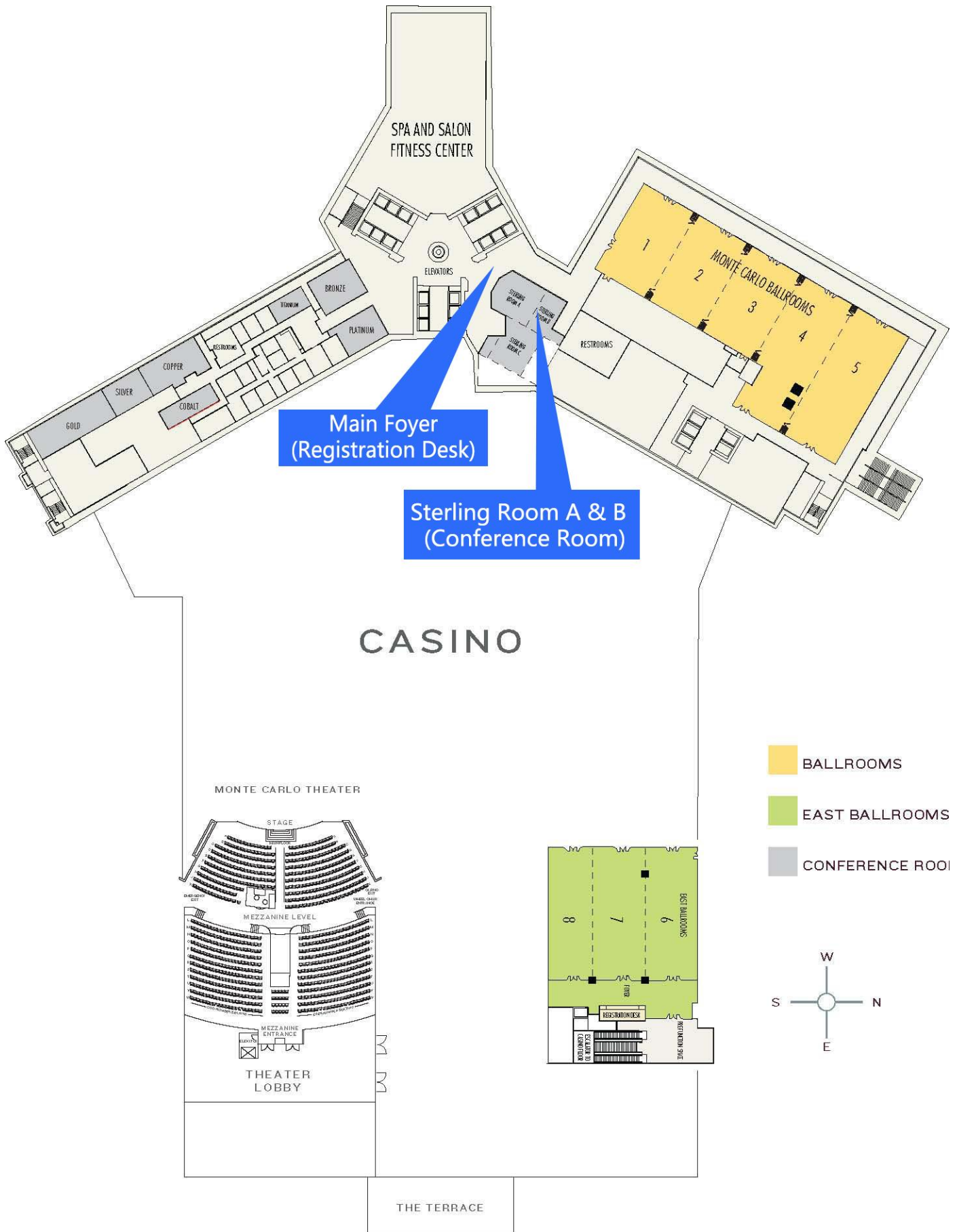
Address: Monte Carlo Resort and Casino, 3770 Las Vegas Blvd. South, Las Vegas, NV 89109

Telephone: General Information: 702.730.777

Room Reservations: 888.529.4828 or 702.730.7000



MEETING FACILITIES MAP



Simple Version of Conference Schedule

Dates	Venue	Items
May 9, 2015 (Saturday) 10:00AM-12:00AM 13:30PM-16:00PM	Main Foyer of Monte Carlo Resort and Casino	Participants Registration and Conference kits Collection
May 10, 2015 (Sunday) (9:00AM-9:50AM)	Sterling Room A & B, 2 nd Floor	Opening Ceremony and Keynote Speech I Keynote Speaker I: Prof. Dr. Houssain Kettani
May 10, 2015 (Sunday) (09:50AM-10:35AM)	Sterling Room A & B, 2 nd Floor	Keynote Speech II Keynote Speaker II: Prof. Rory McGreal
May 10, 2015 (Sunday) (10:35AM-10:55AM)	Sterling Room A & B, 2 nd Floor	Coffee Break and Group Photo
May 10, 2015 (Sunday) (10:55AM-12:00AM)	Sterling A Room & B, 2 nd Floor	Paper Presentation Session I (6 papers) Session Chair I: Prof. Rory McGreal Best Presentations Award(Session I) and Session I Group Photo
May 10, 2015 (Sunday) (12:00AM-13:30PM)	Sterling Room C, 2 nd Floor	Lunch
May 10, 2015 (Sunday) (14:00PM -15:25PM)	Sterling Room A & B, 2 nd Floor	Paper Presentation Session II (8 papers) Session Chair II: Prof. Sami Alwakeel Best Presentations Award(Session II) Session II Group Photo
May 10, 2015 (Sunday) (15:25PM -15:40PM)	Sterling Room A & B, 2 nd Floor	Coffee Break
May 10, 2015 (Sunday) (15:40PM -16:15PM)	Sterling Room A & B, 2 nd Floor	Invited Speech Invited Speaker : Prof. Bibhuti Bhusan Biswal
May 10, 2015 (Sunday) (16:15PM -17:30PM)	Sterling Room A & B, 2 nd Floor	Paper Presentation Session III (7 Papers) Session Chair III: Prof. Bibhuti Bhusan Biswal Best Presentations Award(Session III) Session III Group Photo
May 10, 2015 (Sunday) (17:30PM -17:35PM)	Sterling Room A & B, 2 nd Floor	Concluding Ceremony
May 10, 2015 (Sunday) (18:00PM -19:30PM)	The Buffet, casino floor	Dinner Banquet

REGISTRATION GUIDE

May 9, 2015-----Onsite Registration Only

Venue: Main Foyer of Monte Carlo Resort and Casino

Time: 10:00 a.m.-16:00 p.m.

Registration Steps

1. Arrive at the Main Foyer of Monte Carlo Resort and Casino during 10:00 a.m.-16:00 p.m.



2. Show the conference organizer staff the paper notification and acceptance letter



3. Sign your name on the Participants List



4. Check the documents in the package: (1 conference program, 1 lunch coupon, 1 dinner coupon, 1 receipt, 1 name card, 1 computer bag, 1 souvenir)



5. Finish registration

FULL SCHEDULE

May 10, 2015----Oral Presentation Day

Venue: Sterling Room A & B, 2nd floor

Time: 9:00 am---17:35 pm

Introduction to Keynote Speakers



Prof. Dr. Houssain Kettani

Fort Hays State University, USA

Biography: Dr. Houssain Kettani received the Bachelor's degree in electrical and electronic engineering from Eastern Mediterranean University, Famagusta, North Cyprus, in 1998, and Master's and doctorate degrees both in electrical engineering from the University of Wisconsin, Madison, Wisconsin, USA, in 2000 and 2002, respectively. He joined as faculty member the department of electrical and computer engineering at the University of South Alabama, Mobile, Alabama, USA in 2002-2003, then department of computer science at Jackson State University, Jackson, Mississippi, USA in 2003-2007, and department electrical and computer engineering and computer science at Polytechnic University, San Juan, Puerto Rico, USA in 2007-2012 where he also was director of partnership development office. He joined Fort Hays State University, Hays, Kansas, USA in 2012, and is currently professor and director of computer science and information systems engineering. Dr. Kettani has served as Staff Research Assistant at Los Alamos National Laboratory, Los Alamos, New Mexico, USA in summer of 2000, Visiting Research Professor at Oak Ridge National Laboratory, Oak Ridge, Tennessee, USA in summers of 2005 to 2011, Visiting Research Professor at the Arctic Region Supercomputing Center at the University of Alaska, Fairbanks, Alaska, USA in summer of 2008, and Visiting Professor at the Joint Institute for Computational Sciences at the University of Tennessee, Knoxville, Tennessee, USA in summer of 2010. Dr. Kettani's research interests include computational science and engineering, high performance computing algorithms, information retrieval, network traffic characterization, number theory, robust control and optimization, and Muslim population studies. He presented his research in over sixty refereed conference and journal publications and his work received over four hundred citations by researchers all over the world. He chaired over hundred international conferences throughout the world and successfully secured external funding of more than a million dollars for research and education from US federal agencies such as NSF, DOE, DOD and NRC.



Prof. Rory McGreal*UNESCO/COL Chair in OER Athabasca University, Canada*

Biography: Rory McGreal is a UNESCO/Commonwealth of Learning/International Council for Open and Distance Education Chair in Open Educational Resources and Director of the Technology Enhanced Knowledge Research Institute (TEKRI) at Athabasca University (AU) – Canada’s Open University. He is also a co-Editor of the International Review of Research in Open and Distributed Learning (IRRODL). And, he is also a professor of Computer Technologies in Education. He was previously the Associate Vice President Research at AU. He has also worked internationally in the Middle East, Seychelles, and Europe. His research interests include OER, MOOCs, ICT, assessment and accreditation, virtual mobility, and mobile learning.

Introduction to Invited Speaker



**Prof. Bibhuti Bhusan Biswal***National Institute of Technology, Rourkela, India*

Biography: Dr. Bibhuti Bhusan Biswal graduated in Mechanical Engineering from UCE, Burla, India in 1985. Subsequently he completed his M.Tech, and Ph.D. from Jadavpur University, Kolkata. He joined the faculty of Mechanical Engineering at UCE Burla from 1986 and continued till 2004 and then joined National Institute of Technology, Rourkela as Professor and currently he is the Professor and Head of Department of Industrial Design. He has been actively involved in various research projects and published more than 100 papers at National and International levels. His areas of research interest include industrial robotics, FMS, Computer integrated manufacturing, automation, and maintenance engineering. He was a visiting Professor at MSTU, Moscow and a visiting scientist at GIST, South Korea.

Morning Sessions

May 9, 2015**Venue:** Sterling Room A & B, 2nd floor**Time:**9:00 a.m.-12:00 a.m.

Opening Remark(9:00am-9:05am)	Prof. Dr. Houssain Kettani
Keynote Speech I(9:05am-9:50am)	Keynote Speaker I: Prof. Dr. Houssain Kettani
Keynote Speech II (9:50am-10:35am)	Keynote Speaker II: Prof. Rory McGreal
Coffee break(10:35am-10:55am)	
Session I (10:55am-12:00am)	Session Chair I: Prof. Rory McGreal

<p>9:00a.m.-9:05a.m.</p>	<p style="text-align: center;">● Opening Remarks</p>
<p>Keynote Speech I 9:05a.m.-9:50a.m</p>	<div style="text-align: center;">  <p>Prof. Dr. Houssain Kettani <i>Fort Hays State University, USA</i></p> </div> <p>Topic of Keynote Speech: The United States' Challenges in Science and Engineering Education Abstract: Numerous statistical data indicate that science and engineering workforce in the United States is aging and nearing retirement. Moreover, various studies show that it has become increasingly difficult to attract American students to science and engineering fields. We present supporting data for different ethnic groups and international students for various degrees in these fields. The situation is particularly grim for Hispanics, who are the fastest growing segment in the population. They remain an untapped in resource, which could either present the solution needed to overcome this challenge, or further deteriorate the situation. The objective of this talk is to shed some light on the situation and suggest some solutions to this predicament that the nation is facing.</p>
<p>Keynote Speech II 9:50a.m.-10:35a.m</p>	<div style="text-align: center;">  <p>Prof. Rory McGreal <i>UNESCO/COL Chair in OER Athabasca University, Canada</i></p> </div> <p>Topic of Keynote Speech: The Need for Open Licences in Research and Education Abstract: Openly licensed content, either Open Educational Resources (OER) or Open Access (OA) research papers constitute important resources with the potential to facilitate the expansion of research and learning worldwide. The flexibility, both technological and legal afforded by openly licensed content is an important pre-condition for enhancing research and supporting ubiquitous learning. Open standards support the deployment of scholarly articles and learning objects on a wide variety of different devices, applications and operating systems. The open license frees researchers, instructors and learners from concerns about how, when, where and how long the content, video, audio or application can be used.</p>



Coffee Break and Group Photo

10:35a.m.-10:55a.m.

Session I-Communication Network and Information Technology

(6 papers, 10 minutes for each paper, including Q&A)

Venue: Sterling Room A & B, 2nd floor

Time: 10:55a.m.-12:00a.m.

Session Chair: Prof. Rory McGreal



Presenter: Amr Mahmoud Tolba Gafar


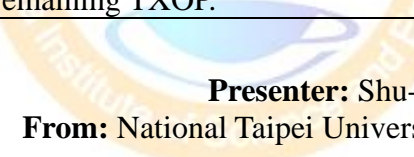
From: Computer Science Department, Community College, King Saud University, Saudi Arabia



Title: A Stepwise Self-adaptive Model for Improving Cloud Efficiency Based on Multi-Agent Features

Authors: Amr Tolba and Ahmed Ghoneim

Abstract: Today, the multi-agent systems are the most common systems that have intelligent behavior and able to adapt features based on the environmental changes. On the other side, cloud applications enable the stakeholders to customize their resources and software they need based on the requested domain. These applications face many challenges such as how to handle the changes of the stakeholder requirements at run-time, how to reconfigure the constituted architecture dynamically to be in consistency with the new services, and how to cope with the highly inherent expensive cost. To deal with these challenges, we proposed a new model that uses basic agent features for enhancing the cloud infrastructure functionalities by reconfiguring their allocated resources and software at run-time. The proposed model is composed of three levels. The first level is the cloud level which via its functionalities the consistent image that maps the user's requests through its manual components can be created & established. The second level is the intermediate level, which is responsible for two issues: playing the role of connector between the cloud level and the multi-agent level,

S2015-103
10:55am-11:05am

	<p>and verifying the consistent of outputs for both of the upper and lower levels. The third level is the multi-agent, which is responsible for improving the quality of the constituted cloud images by co-operating the information, reasoning, learning and mobile agents. Finally, the urban transportation system is used to proof the applicability and usage of the proposed model.</p>
<p>S2015-108 11:05am-11:15am</p>	<div style="text-align: center;">  <p>Presenter: Wen-Shyang Hwang From: Department of EE. in National Kaohsiung University of Applied Sciences, TAIWAN</p> <p>Title: TXOP Combinatorial Problem in IEEE 802.11e HCCA Networks</p> <p>Authors: Ming-Hua Cheng, Cheng-Han Lin, Wen-Shyang Hwang, Feng-Cheng Yu</p> <p>Abstract: The Hybrid Coordination Function (HCF) was proposed in IEEE 802.11e, including the competition-based Enhanced Distributed Channel Access (EDCA) and polling-based HCF Controlled Channel Access (HCCA). This paper mainly carries on the research in the HCCA mechanism. In the HCCA mechanism, the Sample Scheduler offers a way to determine the time duration of the Transmission Opportunity (TXOP). The determination of TXOP is calculated by the equation according to two parameters of transmission, including the Mean Data Rate and Packet Size. Next, Sample Scheduler distributes the result of the TXOP to the QSTA. However, QSTAs are not able to completely utilize the allocated TXOP, which causes the waste of remaining TXOPs. The remaining TXOPs of each QSTA are wasted. Therefore, this paper focuses on allocating the remaining TXOP to QSTAs that can transmits more data packets and reduces the packet dropped rate. The simulation results show that the proposed scheme increases the system throughput and decreases the packet loss rate by utilizing the remaining TXOP.</p> </div>
<p>S2015-328 11:15am-11:25am</p>	<div style="text-align: center;">  <p>Presenter: Shu-Ming Tseng From: National Taipei University of Technology, Taiwan</p> <p>Title: Adaptive DSTBC and Network Coding for TWR Networks in Impulsive Noise Channels</p> <p>Authors: Shu-Ming Tseng</p> <p>Abstract: In the two-way relay (TWR) networks with two relays between two nodes, the previous scheme proposed a TWR network coding system using all Decode-and-Forward (DAF) elements without distributed space time code (DSTBC). In our proposed scheme, we use modieifed Alamouti DSTBC with adapative AAF/DAF elements. The simulation results show that our proposed scheme is better than the previous scheme at 10-3 BER by 1.2dB, 1.8dB, 2dB, and 2.2dB for impulsive noise channel parameter $\delta=2, 1.44, 1, \text{ and } 0.8$, respectively.</p> </div>
<p>S2015-219 11:25am-11:35am</p>	<div style="text-align: center;"> <p>Presenter: Gogineni Krishna Chaitanya From: NRI Institute of Technology, India</p> <p>Title: Hidden Web Data Extraction using Word Net Ontologies</p> <p>Authors: Dr. V.Suryanarayana, Gogineni Krishna Chaitanya, Vemuri Lakshmi Chetana</p> <p>Abstract: In response to the search engine crawler's queries, the application servers</p> </div>

	<p>generate the information and deliver it directly to the user. The generated information forms the hidden web (deep web or invisible web) because the information is usually enwrapped in Hyper Text Markup Language (HTML) pages as data records. Due to the dynamic nature of the generated data records from the hidden web, current search engines (either general or commercial) are unable to index the HTML page accordingly. Propose to develop an Ontological Wrapper (OW) for the extraction and alignment of data records using lightweight ontological technique driven by word net repositories. Main component of the wrapper involves checking the similarity of data records and not just visual cues by stripping the html aspects. There are three main components in our wrapper design, namely, parsing process performed with TEXT MDL Algorithm, extraction initiated with irrelevant HTML stripping, and alignment of data records for classification. After the three step process, we are left with pure text data records stripped of the html content which can be searched over by humans or search engine crawlers. Our Approach is almost adaptable to most websites of distinguished visual cues and yields better data extraction results at better speeds than prior systems and a practical implementation validates our claim.</p>
<p>S2015-326 11:35am-11:45am</p>	<div style="text-align: center;">  <p>Presenter: Seok-Weon Seo From: Korea University, Korea</p> <p>Title: Extensible multiple spanning tree protocol for virtual extensible LAN</p> <p>Authors: Seok-Weon Seo, Seong-Mun Kim, Sung-Gi Min</p> <p>Abstract: Virtual eXtensible LAN (VXLAN) is a Layer 2 overlay scheme over a Layer 3 to solve the scalability problems of Virtual LAN (VLAN). VXLAN utilizes IP multicast to broadcast a frame to hosts in a VXLAN segment which has an independent broadcast domain. The VXLAN segment is mapped into a multicast group based on a multicast tree which ensures a loop-free topology. However, VXLAN depends on IP multicast because all devices have to support IP multicast. In addition, IP multicast requires a large amount of network resources to maintain multicast trees which are built per the multicast group. In this paper, the proposed scheme replaces IP multicast. It is extended from Multiple Spanning Tree Protocol (MSTP), and provides the spanning tree to broadcast a frame and to prevent a loop topology in VXLAN. The IP multicast dependency is removed and the number of spanning trees is reduced by taking the advantage of MSTP that constructs a spanning tree per an instance. It also provides interoperability with VLAN by using a typical spanning tree algorithm.</p> </div>
<p>S2015-340 11:45am-11:55am</p>	<div style="text-align: center;">  <p>Presenter: John Burris</p> <p>From: Southeastern Louisiana University, USA</p> <p>Title: Visualizing Keyword Searches Using the Venn Diagram</p> <p>Authors: John Burris</p> <p>Abstract: This paper reports how the Venn diagram can be used to effectively explore and visualize search results using keywords of academic citations. By using a familiar and intuitive diagram for set relations, the results could provide not only the retrieval of a document, but also context for its relevance to the search. This work focuses on the searching of citation indexes due to availability of accurate and descriptive</p> </div>

keywords. This work includes a proposal for the retrieval process as well as a prototype for searching using a limited dataset. This is a “work-in-progress” paper that will provide a limited implementation and a framework for evaluation.



**Session I
Best Presentation Award
&
Session I Group Photo**



Lunch



**Lunch Time
12:00 a.m.-13:30 p.m.
Sterling Room C, 2nd Floor**

May 10, 2015
Venue: Sterling Room A & B, 2nd Floor

Time: 14:00 p.m.-17:35 p.m.

Session II (14:00pm-15:25pm)	Session Chair II: Prof. Sami Alwakeel
Coffee break(15:25pm -15:40pm)	
Session III (15:40pm -16:15pm)	Invited Speech Invited Speaker: Prof. Bibhuti Bhusan Biswal
Session III (16:15pm -17:30pm)	Session Chair III: Prof. Bibhuti Bhusan Biswal
Concluding Remark (17:30pm-17:35pm)	

Afternoon Sessions


Session II- Computer Application Technology




(8 Papers, 10 minutes for each paper, including Q&A)


Venue: Sterling Room A & B, 2nd floor

Time: 14:00 p.m.-15:20 p.m.

Session Chair: Prof. Sami Alwakeel

<p style="text-align: center;">S2015-336 14:00pm-14:10pm</p>	<p style="text-align: center;">Presenter: Dahai Guo From: Florida Gulf Coast University, USA Title: Tracking Student Sentiment from Social Media</p> <p>Authors: Dahai Guo</p> <p>Abstract: This paper describes a framework that utilizes technologies to track students' sentiment using their input to social media. Social media has accumulated a vast amount of textual inputs from students. That amount is still growing rapidly. While it is desirable to gain insights from these inputs, it is impossible to manually analyze individual inputs. Fortunately, computer technologies exist for summarizing textual data. One of such technologies is referred to as sentiment analysis, which has been used in the business world for tracking customers' opinions on certain products or services. The framework, introduced in this paper uses these sentiment analysis technologies to track students' sentiment. It consists of three components: 1) data collector, 2) sentiment analyzer, and 3) result reporter. In addition, this paper also presents a case study where students' comments on ratemyprofessors.com are analyzed.</p>
<p style="text-align: center;">S2015-110 14:10pm-14:20pm</p>	<div style="text-align: center;">  </div> <p style="text-align: center;">Presenter: Mohammed Eltaher From: University of Bridgeport, USA</p> <p style="text-align: center;">Title: User Profiling of Flickr: Integrating Multiple Types of Features for Gender Classification</p> <p>Authors: Mohammed Eltaher, Jeongkyu Lee</p> <p>Abstract: With the pervasive use of social media sites, an extraordinary amount of data has been generated in different data types such as text and image. Combining image features and text information annotated by users reveals interesting properties of social user mining, and serves as a powerful way of discovering unknown information about the users. However, there has been few research work reported about combination of image and text data for social user mining. The progress of data mining techniques makes it possible to integrate different data types for effective mining of social media data. In this study, we propose a novel idea to classify the gender of user by integrating multiple types of features. We utilize not only text information, i.e., tag or description, but also images posted by a user with</p>

	<p>semantic based data fusion technique. Unlike the previous approaches that used a content based approach to merge multiple types of features, our approach is based on image semantic through a semi-automatic image tagging system. For the classifier, we employ Naive Bayes and SVM algorithms, where the integrated data are typically represented as feature vector. We perform the experiments with the data set, and the results show over 80% in terms of accuracy for gender classification, which outperforms the content based one.</p>
<p>S2015-112 14:20pm-14:30pm</p>	<div style="text-align: center;">  <p>Presenter: Juan Sebastian Ochoa-Zambrano From: Universidad Politécnica Salesiana, Ecuador</p> <p>Title: A New Hand Gesture Recognition Approach for Robotic Assistants Based on Mobile Devices</p> <p>Authors: Juan Ochoa-Zambrano, Vladimir Robles-Bykbaev, Jan Doutreloigne, Tania Flores-Tapia</p> <p>Abstract: Nowadays, the mobile devices (smart phones and tablets) are developed with important improvements in processing and memory capacity as well as camera resolution, massive storage or wireless connectivity. On those grounds, in developing countries these devices constitute an important alternative to develop assistive technologies to provide support in several areas as education, health care, and the elderly. Given that, in this paper we propose a new approach to handle the gesture recognition in robotic assistants that use a mobile device as main processor. In order to perform the recognition our approach uses a robust descriptor based on polygonal approximation, convex hull techniques, and the first seven HU moments. The results show 93% precision in real scenarios with different light conditions.</p> </div>
<p>S2015-218 14:30pm-14:40pm</p>	<div style="text-align: center;">  <p>Presenter: Jaffar Ahmad Alalwan From: Institute of Public Administration, Saudi Arabia</p> <p>Title: Research-in-Progress: Determinants of Software Piracy Behavior in Saudi Arabia</p> <p>Author: Jaffar Ahmad Alalwan</p> <p>Abstract: Software piracy is a crime that the legislative authority in many countries tries to avoid by enforcing different types of penalties. Although, the problem of software piracy has received considerable academic consideration, limited concern is given to analyzing the software piracy by criminological theories in developing countries. Criminological theories are more consistent with software piracy in order to understand and prevent such illegal behavior. The objective of this paper is to fill this gap by looking at the software piracy in Saudi Arabia through the lens of contamination theory.</p> </div>
<p>S2015-325 14:40pm-14:50pm</p>	<div style="text-align: center;">  <p>Presenter: Alice J. Lin From: Marshall University, USA</p> <p>Title: Serious Games for Medical Education</p> </div>

	<p>Authors: Michael Chen, Charles Chen, Alice J. Lin</p> <p>Abstract: Learning medicine is a difficult task that requires both memorization of clinical knowledge as well as practice of medical procedures. As most procedures can cause harm to the patient, it is sometimes not suitable for new students to practice such procedures on patients. The challenge, therefore, is to develop new methods of teaching students while minimizing the risk to the patient. Fortunately, modern technology has the means to inject much needed interest into the subject and allows for multiple new formats of learning. As computer games are extremely popular, their role in education becomes more and more vital. This paper aims to provide an alternative platform for health science education in a format that appeals to users. A prototype has been developed for the education of health science and it can potentially supplement traditional teaching methods.</p>
<p>S2015-332 14:50pm-15:00pm</p>	<p style="text-align: center;">Presenter: Deena M Barakah From: King Saud Medical City Ministry of Health, Riyadh, Saudi Arabia</p> <p style="text-align: center;">Title: Information Technologies Adoption in Medical Education, Research and Advancement Clinical Treatment at King Saud Medical City</p> <p>Authors: Deena M. Barakah, Manal M. Shira, Sami S. Alwakeel</p> <p>Abstract: Although the use of Information technology (IT) systems and applications at medical context by physicians have been studied at many hospitals in advance countries, little attention has been paid to how current medical & health care practitioners staff at Saudi hospitals are applying the information technology and the Internet in their daily clinical practice. This study at King Saud Medical City (KSMC) in Riyadh, Saudi Arabia aims towards assessment of the medical staff proficiency in: using IT based technologies in clinical tasks, in using new E-clinical systems (e.g. CPOE , PAC etc.), and to estimate the adoption rates of IT technologies for enhancing medical knowledge, continuing education and medical research. A questionnaire was developed based on cross-sectional study and was distributed, to medical staff and health care employees of KSMC to get their feedback.</p> <p>Based on various results collected, it can be deduced that the adoption rate of IT technologies among KSMC medical and healthcare practitioners in clinical tasks, use of clinical systems, is comparable to their counterparts in advanced countries.</p>
<p>S2015-333 15:00pm-15:10pm</p>	<div style="text-align: center;">  </div> <p style="text-align: center;">Presenter: Sami Alwakeel From: King Saud University, Saudi Arabia</p> <p style="text-align: center;">Title: Information Technology Adoption and Literacy in Health Care Practice: A Case Study</p> <p>Authors: Deena M. Barakah, Mohammad S. Al Hasan, Sami S. Alwakeel</p> <p>Abstract: The purpose of this study at King Saud Medical City (KSMC) is to evaluate the IT literacy level in using modern new Information technology (IT) applications among health Practitioners at King Saud Medical City, a group of tertiary -care hospitals for medicine and surgery in Riyadh, Saudi Arabia.</p> <p>A cross-sectional study was developed and a survey questionnaire was distributed to a sample of health care practitioners of KSMC.</p>

	<p>Main results from the research showed that a very high percentage of participants (80.9%) considered themselves as semi-full or fully skilled in using Internet and IT office applications. The Percent rate of all participants who have access to the Internet and use computer workstations regularly in their daily practice are 66.0% and 87.2% respectively with no major difference is noticed with respect to participant gender. The study statistics showed also that the most common daily application used were : browsing through Internet Search Engines & Web Sites , using PDA for medical research (Each with 55.3% of participants) followed by Using electronic mail packages e.g. MS Mail, Outlook (46.8%). Our study agrees with findings of other researchers that the majority of health care practitioners in Saudi Hospitals, as well as in developed countries, had good skills in computer, Internet and mobile technology in their daily practice and can easily cope with the development toward smart health institutions.</p>
<p>S2015-337 15:10pm-15:20pm</p>	<p style="text-align: center;">Presenter: Praveenkumar Khethavath From: City University of New York, LaGuardia Community College, USA Title: Privacy Preserving Distributed Cloud Storage Authors: Praveenkumar Khethavath, Doyel Pal</p> <p>Abstract: Cloud computing models stores data and computing resources in virtual servers located in large data centers' and are managed using a centralized architecture. Distributed cloud uses resources provided by users who are geographically distributed over a large area. Distributed cloud is completely decentralized and resources are provided in a P2P fashion. This model of distributed cloud is based on mutual benefit for users and is free of cost. Distributed cloud provides all the services provided by regular cloud computing models. Since the resources are provided by regular users, security and privacy for data, storage and computing resources are main concerns. In this paper we propose a privacy preserving storage and file sharing mechanism among different users in a distributed cloud. This mechanism involves processing, storing and retrieval of encrypted data in a secure and privacy preserving manner.</p>



Session II
Best Presentation Award
&
Session II Group Photo



Prof. Bibhuti Bhusan Biswal

National Institute of Technology, Rourkela, India

Title: Influence of Assembly Predicates on Robotic Assembly Sequence Generation

Topic of Invited Speech: Several graphical, heuristic and artificial intelligence(AI) based methods exist to find out an appropriate assembly sequence, in which graphical and heuristic methods are used to generate at least one feasible assembly sequence and AI based methods are aimed to generate optimal assembly sequence. Most of these methods are complex and time consuming due to huge search space with lot of assembly predicates to be taken care of. In order to reduce the complexity of the problem and computational time most of researchers in ignored/not-considered one or more assembly predicates. Often such assumptions lead to improper assembly sequence.

The present research is aimed towards detecting the impact of the assembly predicate considerations on optimal robotic assembly sequence planning in achieving appropriate assembly sequence and computational time.

Invited Speaker
15:40pm-16:15pm



Session III- Intelligent Control System and Application


(7 papers, 10 minutes for each paper, including Q&A)


Venue: Sterling Room A & B, 2nd Floor

Time: 16:15p.m.-17:35p.m.

Session Chair: Prof. Bibhuti Bhusan Biswal

<p>S2015-115 16:15pm-16:25pm</p>	<p style="text-align: center;">Presenter: Mark Allison From: The University of Michigan-Flint, Michigan, USA</p> <p style="text-align: center;">Title: A Policy Based Approach to Models at Runtime within Cyber-Physical Systems: A Case Study for Microgrids</p> <p>Authors: Mark Allison, Seung-Jin Lee, Anil Kuvvarapu</p> <p>Abstract: As physical systems which are managed using software become more intricate, the use of models as high level abstractions have been increasingly applied to tame the complexity required of the controlling software. Model based software control systems typically execute models at runtime to produce or inhibit behavior within the underlying system. One category, interpreted domain-specific modeling languages (i-DSMLs) derive their semantics using changes to a causally connected runtime model. These languages have demonstrated effectiveness in the control of cyber-physical systems, however the a dynamic nature of their runtime models constrains the range and depth of behaviors that may be specified.</p> <p>This article presents an approach to model-based control of cyber-physical systems which utilize prioritized Event-Condition-Action policies as an augmentation. We address policy conflict management and utilize demand side energy management as our application domain to support proof of principle and utility.</p>
<p>S2015-301 16:25pm-16:35pm</p>	<div style="text-align: center;">  </div> <p style="text-align: center;">Presenter: Narongrit Waraporn From: King Mongkut's University of Technology Thonburi, Thailand</p> <p style="text-align: center;">Title: Flood Warning System over Spatially Predicted Flood Spreading Area</p> <p>Authors: Narongrit Waraporn, Panjaporn Truatmoraka, Suthasinee Sringenggam, Natchana Kucharoenpaisan, SuthatRonglong</p> <p>Abstract: Flooding has become a catastrophic disaster recently in many cities. Flood model based the satellite images, fuzzy logic evaluation, and water capacity sensors in river were studied while GIS has been applied to various applications. We proposed a flood warning system based on our proposed hydrological river flow model and spatially predicted flood spreading model over Google map. We ran our predicted river flow model over water gates along north section of Chaophaya River, Thailand, and compared with the actual data collected by Royal Irrigation Department. The comparison shows that the accuracy of our hydrological river flow model is over 90% during flood peak time of raining season.</p>
<p>S2015-303 16:35pm-16:45pm</p>	<div style="text-align: center;">  </div> <p style="text-align: center;">Presenter: Danmei Li From: Donghua University,China</p> <p style="text-align: center;">Title: The Design and Implantation of A Vehicle Access Control System Based on Double Cards Recognition</p> <p>Authors: Danmei Li, Yuxing Chen, Huanle Yang, Yongqing Xu</p> <p>Abstract: A solution of vehicle access control system based on double cards</p>

	<p>(vehicle RFID card and staff RFID card) recognition is proposed. The Barrier gate opens when the combination of vehicle RFID card and staff RFID card follow the passing rule. The vehicle access control system is developed. The network architecture and the hardware of the control system are described. The data structure and code stored in the RFID cards about special car and private car are introduced. Double cards identifying process is demonstrated. This system meets some special demands of vehicle access control.</p>
<p>ICOEE2015-2-001E 16:45pm-16:55pm</p>	<p style="text-align: center;">Presenter: Mohamed Al Musleh From: Heriot Watt University, United Arab Emirates Title: Demonstration of Thermoelectric Glass</p> <p>Authors: Wolf Fruh, Mohamed Al Musleh</p> <p>Abstract: This paper investigate the feasibility of embedding thermoelectric generator modules within buildings external glass in places where high temperature difference is present between indoor and outdoor, such as areas with extreme hot or extreme cold weather, these modules will work as small individual electrical generators, which then get electrically connected in parallel or series depending on the required voltage, and/or current, the electricity generated can then be used as any other renewable source.</p> <p>This paper describes a prototype design, build, test, and the actual results while testing during the hot summer of Dubai, UAE, where exterior temperature was in the range of 40s Co while indoor temperature in the range of 20s Co, then discuss the challenges involved in the setup, and its feasibility in this part of the world.</p>
<p>ICOEE2015-2-012E 16:55pm-16:05pm</p>	<div style="text-align: center;">  </div> <p style="text-align: center;">Presenter: Mohamed Misbah Elkhatib From: Military Technical College, Cairo, Egypt</p> <p style="text-align: center;">Title: Design and Simulation of An Intelligent Laser Tracking System</p> <p>Authors: Tarek Ahmed Khaled, Mohamed Misbah Elkhatib, Ashraf Fathy El-Sherif</p> <p>Abstract: In a laser tracking system (LTS) the control objective is for a laser beam to track targets. This is done based on the returning laser beam, as measured by a four-quadrant photo detector is required to be centered in the surface of Quad detector (QD). This brief shows that fuzzy logic controllers (FLC) can outperform classic controllers in such applications. The advantages of utilizing a proportional–integral–derivative (PID) like fuzzy controllers to improve the control performance for a system with noise and a relatively long time delays is confirmed by simulation results. To have a complete designation and tracking system, an experimental characterization is presented including current verses voltage curves, output optical power verses drive current curves, temperature dependence of wavelength is illustrated and a laser modulation with a specific PRF code was developed.</p>
<p>ICRAI2015-305E 17:05pm-17:15pm</p>	<p style="text-align: center;">Presenter: Tarek Al-Hawari From: Jordan University of Science and Technology, Jordan Title: Studying the Effect of Facility Size on the Selection of Automated Guided Vehicle Flow Configurations</p>

	<p>Authors: Tarek Al-Hawari, Ena'am S. Al-Zoubi, HussamAlshraideh</p> <p>Abstract: In this paper, simulation is used to compare the performance of three Automated Guided Vehicle (AGV) flow configurations: conventional, tandem and loop in three differently sized facilities. The objective is to study the effect of these configurations in various facilities on minimizing the ratio of total unloaded travel time of all AGVs in the system. It is found that this ratio is highly affected by AGV configurations as well as the size of the facility and number of AGVs used.</p>
<p>ICRAI2015-309E 17:15pm-17:25pm</p>	<div style="text-align: center;">  <p>Presenter: Bibhuti Bhusan Biswal From: National Institute of Technology, Rourkela, India</p> <p>Title: Optimal Robotic Assembly Sequence generation using Particle Swarm Optimization</p> <p>Authors: M V A Raju, Bahubalendruni, B.B. Biswal, B.B.V.L Deepak</p> <p>Abstract: The optimal feasible robotic assembly sequence leads to efficient manufacturing process by minimizing the assembly cost. Assembly cost is based on the energy required to assemble the components through collision free path and robot directional changes during the assembly operations. So, the determination of a feasible assembly sequence with minimum assembly cost is vital concern for manufacturing industries. Through obtaining optimal assembly sequences taking user inputs (assembly connection matrix, precedence relations, etc..) is less complicate, the correctness of methodology depends on the skill of the engineer who supply these inputs. The present research aims to explore PSO based methodology to determine cost effective optimal robotic assembly sequence through CAD product. The integration of PSO with CAD environment ensures the correctness and completeness of the methodology. The methods to interface with the CAD data to extract liaison data, to test for liaison predicate and feasibility predicate is presented and analyzed briefly with an example. In this methodology, each component of the assembled product is considered as the particle (bird) and mutation operation is performed to generate a new assembly sequence for each iteration. To generate optimal assembly sequence, a fitness function is generated, which is based on the energy function and robot directional changes associated with assembly sequence. The sequence which is having the best fitness value is treated as the optimal robotic assembly sequence.</p> </div>



Session III
Best Presentation Award
&
Session III Group Photo

Concluding Ceremony

Poster Session

(7 Papers)

Venue: Sterling A & B, 2nd Floor

Time: 9:00 a.m.-17:30 p.m.

S2015-106	<p>Title: Streamlined Workflow for 3D Modeling with Animated Characters</p> <p>Authors: Wei-Chieh Chang, Wei-Min Jeng</p> <p>Abstract: With the proliferation of computer graphics and multimedia technology, there are abundant choices of three-dimensional (3D) modeling and character animation professional software in the market. However, authoring using different software products collectively still remains a difficult task considering the distinct features of proprietary software artifacts. The main purpose of this paper is to propose a streamlined workflow aiming at performing the 3D modeling construction with animated characters. As the concept of Wikinomics emerges, open source based software and products are utilized to provide the maximum collective throughput potential. The proposed Sketch Up and Mikumiku Dance workflow (SUMD) introduces the novel method for plentiful of potential applications in light of the augmented capabilities of the integrated process. The goal is to assist professional users associated with different domains and sustain their high enthusiasm levels during the modeling process. Rather than manipulating more than one software products with incompatible properties, the workflow users will be guided through the challenging process to complete their 3D construction with animated characters in the proposed SUMD workflow to create potentials for more future application use.</p>
S2015-109	<p>Title: Improved Semantic Representation and Search Techniques in A Document Retrieval System Design</p> <p>Authors: Nhon V. Do, TruongAn PhamNguyen, Hung K. Chau, ThanhThuong T. Huynh</p> <p>Abstract: Recently, there has been a growing concern on processing documents' content and meaning in information retrieval; concept-based systems have been being studied and developed in order to replace the traditional ones that have several existing major weaknesses. We proposed a document retrieval system design in a specific domain, which manages semantic information related to document content and supports semantic representation and processing in document retrieval, and successfully applied it to some real life projects. However, the solution still has some limitations thus can be further developed and can be adapted for future requirements such as expending domain knowledge and range of applications, improving search results and processing speed. This paper presents some improvements in ontology model along with semantic processing techniques. These changes have been implemented in the same project with a previous solution to evaluate the effectiveness of this work.</p>
S2015-334	<p>Title: Focused Web Crawling Algorithms</p>

	<p>Authors: Andas Amrin, Xia Chunlei</p> <p>Abstract: Nowadays the web is rich of any kind of information. And this information is freely available thanks to the hypermedia information systems and the Internet. This information greatly influenced our lives, our lifestyle and way of thinking. A web search engine is a complex multi-level system that helps us to search the information that available on the Internet. A web crawler is one of the most important parts of the search engine. It's a robot that systematically browses and indexes the World Wide Web. A focused web crawler is used crawling only web pages that are relevant to the user given topic or web page link. A focused crawler is a part of the search system that helps user to find most relevant information from the Internet. In our days, this area of computer science is very popular and important for the development of science and technology, because The Internet is constantly and rapidly growing, and the information in it. In this article we will review most effective focused web crawling algorithms that determine the fate of the search system.</p>
S2015-338	<p>Title: Efficient Migration to Windows</p> <p>Authors: Pallavi Kalyanasundaram, Sunita P. Ugale, Smitha K P, Priti Ranadive</p> <p>Abstract: Software portability is gaining importance worldwide as it adds value by increasing the shelf life of a software application. One aspect of portability deals with porting software across multiple operating systems. Amongst the available, Windows and Linux are widely used operating systems. There are various methods for porting a software tool or application developed in Windows to Linux, however, very less has been written about methods to port Linux applications to Windows. Our paper highlights some popular methods for porting a software application written in C from Linux to Windows. The technique emphasized in this paper provides a simple menu driven environment which will assist a person completely unaware of Linux to port a C application efficiently to Windows. Our paper explores all aspects of how one can systematically port C application developed on Linux, gain access to C source code on Windows, handle issues related to standard header files, libraries, file translations, compiling, linking, debugging and distribution with the help of a case study. The case study addresses issues related to porting huge C application composed of multiple executable modules with each module involving multiple C files. The paper also highlights the Windows equivalents of Linux command line utilities or tools that may be required for functional verification and debugging.</p>
ICRAI2015-101E	<p>Title: Dynamic Optimization of a Three Translational Degrees of Freedom Parallel Robot Based on a Multi-objective Genetic Algorithm</p> <p>Authors: LU Xingguo, LIU Ming, KONG Minxiu</p> <p>Abstract: This work tends to deal with the multi-objective dynamic optimization problem of a three translational degrees of freedom parallel robot. Two global dynamic indices are proposed as the objective functions for the dynamic optimization: the index of dynamic dexterity, the index describing the dynamic fluctuation effects. The length of the linkages and the circumradius of the platforms were chosen as the design variables. A multi-objective optimal design problem, including constrains on the actuating and passive joint angle limits and geometrical interference is then formulated to find the Pareto solutions for the robot in a desired workspace. The Non-dominated Sorting Genetic Algorithm (NSGA-II) is adopted to solve the constrained nonlinear multi-objective optimization problem. The simulation results obtained shows that the robot can achieve better dynamic dexterity and less dynamic fluctuation simultaneously after the optimization.</p>
ICRAI2015-103E	<p>Title: A Fuzzy Logic Controller Tuned with PSO for Delta Robot Trajectory</p>

Control

Authors: LU Xingguo and LIU Ming

Abstract: In the view of the problem of tuning the parameters of the fuzzy logic controller (FLC) for Delta robot trajectory control, a method is put forward to tune the parameters of membership functions and the gains of the controller with particle swarm optimization (PSO). A PSO with dynamic parameters is proposed which makes the PSO has better performance in global search and faster convergence. The fitness function of the PSO was designed by using the time domain indices and integral of time-weighted-squared-error (ITSE) to optimize the performance of the controller. The simulation results show that FLC tuned by PSO has better performance and more robust than the PSO tuned PID controller for the DELTA robot trajectory control.

ICRAI2015-105E

Title: Design of Interval Type-2 Fuzzy Sliding Mode Controller for Hypersonic Aircraft

Authors: JIAO Xin and JIANG Ju

Abstract: The interval type-2 fuzzy, combined with sliding mode control, is proposed in this paper to design a novel nonlinear robust controller for a hypersonic aircraft. In this method, sliding mode reaching law is designed to keep the system stable. In order to overcome the uncertain parameters and external disturbances which exist in aerospace, we utilize an interval type-2 fuzzy approach represented by 9-point representation. Simulation results indicate that this method of interval type-2 fuzzy sliding mode controller can provide robust flight control to ensure good tracking performance of hypersonic aircraft.

Dinner



Dinner Banquet
18:00 p.m.-19:30 p.m.
The Buffet, casino floor

End

Note



Note

