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BOOK OF ABSTRACTS

ITCIA-19

2nd International Conference on Trends in Computer Engineering, Information Technology & Applied Sciences
May 18-19 / London-UK

Organizaed by

ACADEMIC RESEARCH AND SOLUTIONS SOCIEDAD LIMITADA

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Book of Abstracts of 2nd International Conference on Trends in Computer Engineering, Information Technology & Applied Sciences

ITCIA-19
Edited by
Prof. Dr. Perez M.

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ARS provides an ideal academic platform for researchers to present the latest research findings and describe emerging technologies, and directions in Social Sciences, Business Management, Engineering and Natural Science issues. The conference seeks to contribute to presenting novel research results in all aspects of Social Sciences and Engineering. The conference aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results about all aspects of Engineering, Social and Applied Sciences. It also provides the premier interdisciplinary forum for scientists, engineers, and practitioners to present their latest research results, ideas, developments, and applications in all related areas. The conference will bring together leading academic scientists, researchers and scholars in the domain of interest from around the world. Our oncoming events of the successful conference series focusing on Engineering and Social Sciences. Hence, the scientific program focuses on current advances in the research, production and use with particular focus on their role in maintaining academic level in Engineering, Social & Applied Sciences and elevating the science level. The conference's goals are to provide a scientific forum for all international prestige scholars around the world and enable the interactive exchange of state-of-the-art knowledge. The conference will focus on evidence-based benefits proven in clinical trials and scientific experiments.

Best Regards,
Chairman of Conference
Prof. Dr. Perez M.

ITCIA-19

Mercure London Hyde Park Hotel

PROGRAM SCHEDULE

ACADEMIC RESEARCH & SOLUTIONS

Conference Schedule

DAY 01 Saturday (May 18, 2019)

Venue: Mercure London Hyde Park Hotel

09:00 am – 09:30 am	Welcome Reception & Registration
09:30 am – 09:40 am	Opening Ceremony
09:40 am – 09:45 am	Welcome Remarks -**Dr. Perez M.**- Conference Coordinator
09:45 am – 09:50 am	Group Photo Session & Ceremony
09:50 am – 10:00 am	Grand Networking Session & Tea Break

DAY 01 Saturday (May 18, 2019)

Track: Business, Management & Economics Studies

Point of Discussion	Presenter
Adopting Virtual Reality (VR) in Project Management: Development of a Competency Model	Dr. Jiwat Ram
The Role of the Theri Saṃhgamittā Introducing Order of Nuns to Sri Lanka in 3rd Century B.C.E	Nadeesha Sharmalee Gunawardana
Internet-Supported Collaborative Case Analyses for Equity and Inclusion	Dr. Anupam Das
Changing Relations Between Fan Cultures and Industry: The Legitimation Paradox	Dr. Judith Fathallah

Track: Engineering & Applied Sciences

Biomass and Carbon Dioxide Based Synthesis of Dimethyl Ether: An Environmentally Clean Diesel Fuel Alternate	Prof. Timur Dogu
Effect of In-cylinder Environment on Spray Characteristics of Diesel and Biodiesel	Dr. Wei Fu
Glowworm Swarm Optimization and Invasive Weed Optimization for Flexible Job-Shop Scheduling Problem using Big Data	Dr. Ritu Tiwari
Multi Robot Navigation and Mobile Target capturing using Enhanced Invasive Weed Optimization	Devansh Verma

Lunch Break & Ending Note: (01:00 pm - 02:00 pm)

List of Conference Attendees

The following scholars/ practitioners/educationists who don't have any paper presentation, however they will attend the conference as delegates & observers.

No	Official ID	Name	Affiliation Details
1	05-IRSBM19-111A	Ms. Patricia Gibbons	Virginia Commonwealth University, Qatar
2	05-ITCIA19-107A	Abdullah Turkey M Alsahly	University of Portsmouth, England



2nd Day (Sunday May 19, 2019)

All respective guests are free to conduct their own sightseeing and tour. The second day of the event is reserved for this memorable purpose.



TRACK: ENGENEERING TECHNOLOGY AND APPLIED SCIENCES

Biomass and Carbon Dioxide Based Synthesis of Dimethyl Ether: An Environmentally Clean Diesel Fuel Alternate

Timur Doğu[1*], Birce Karaman[2], Nuray Oktar[3], Gülşen Doğu[4]

Abstract Dimethyl Ether (DME) is a highly promising non-petroleum green diesel fuel alternate. It has high cetane number (55-60) and clean burning properties, yielding negligible particular matter and much lower CO and NOx emissions than conventional diesel powered engines. Conventional production method of DME involves methanol synthesis and methanol dehydration processes in different reactors1. However, thermodynamics of this process limits achievement of high DME yields. Recent developments have shown that DME could be directly synthesized from syngas2, which can be obtained from biogas through a dry reforming process2 or by steam reforming of biomass. Direct synthesis of DME from syngas involves methanol synthesis and dehydration reactions at the same proximity within the reactor using bi-functional catalysts. Direct process significantly decreases the equilibrium limitations of the conventional DME synthesis route, yielding much higher DME yields2,4. More importantly, as it was shown in our recent work, carbon dioxide in the syngas can effectively be converted to DME in this direct process using novel bi-functional mixed, hybrid or core-shell type catalysts containing both methanol synthesis sites (Cu-based) and methanol dehydration sites (silicotungstic acid (STA) incorporated mesoporous alumina etc.). Effects of CO2/CO ratio of the feed stream and temperature on DME yield were investigated. High acidity of STA impregnated mesoporous alumina facilitated in-situ dehydration process, giving very high DME yields. Experimental results obtained with different CO2/CO ratios proved the positive effect of CO2 on both overall conversion of CO+CO2 and on DME yield. Highest DME selectivity values, approaching to 90%, were achieved with a feed stream composition of CO/CO2/H2=40/10/50, at 275oC. Our more recent work, which was performed using a silicotungstic acid impregnated Cu-ZnO based methanol synthesis catalyst showed excellent performance for DME synthesis from sygas. In this presentation, our recent work on DME synthesis will be reviewed and new results obtained with STA incorporated Cu-ZnO-alumina catalysts will be reported.
Acknowledgement TÜBA (Turkish Academy of Sciences), TUBITAK

Keywords: Carbon Dioxide, Fuel.

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Glowworm Swarm Optimization and Invasive Weed Optimization for Flexible Job-Shop Scheduling Problem using Big Data

Dr. Ritu Tiwari[1], Devansh Verma[2*], Harshita Lalwani[3], Prof. Anupam Shukla[4]

Abstract The problem of Flexible Job Shop Scheduling (FJSP) finds its importance in the manufacturing field and is an expansion of the traditional Job Shop Scheduling Problem. In this paper, two nature inspired algorithms are studied for FJSP. The ecological phenomena used here are Invasive Weed Optimization and Glow Worm Swarm Optimization Algorithms. The objective is to optimize FJSP by minimizing the maximum completion time (makespan). IWO is an optimization algorithm which copies the colonizing behaviour of weeds and GSO is a novel swarm intelligence optimization algorithm developed which follows the conduct of glowworms. A performance comparison of IWO and GSO is carried out for the FJSP. The objective of this paper is to propose a sequence of jobs on the machines, to be utilized by the scheduler for explaining asset clashes.

Keywords: Flexible Job Shop Scheduling, Invasive Weed Optimization, Glowworm Swarm Optimization (GSO), Makespan, Jobs, Machines, Operations.

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Multi Robot Navigation and Mobile Target capturing using Enhanced Invasive Weed Optimization

Dr. Ritu Tiwari[1], Devansh Verma[2*], Vishal Garg[3], Prof. Anupam Shukla[4]

Abstract Multi-Robot navigation and target tracking is one of the most challenging issues in multi robot system. The objective of this paper is to guide the robots in an environment with obstacles whose characteristics may vary depending on the nature of the problem. Economic considerations often mandate the use of cost function such as time taken or energy usage on the robot's motion. An extensive amount of study has been done from years in this field covering different environmental conditions. Apart from extensive amount of research in robot navigation and target capturing, there is still a subclass of the problem that has been given very little attention i.e. capturing moving target. In this paper, an enhanced version of Invasive Weed Optimization (IWO) has been used for solving this problem. The algorithm proposed is capable of incorporating the dynamic characteristics of the environment. The algorithm has been simulated on MATLAB under various conditions and the results obtained has been compared with earlier proposed approaches

Keywords: Robot navigation; Invasive Weed Optimization; Target tracking; Mobile Target; Nature Inspired Algorithm.

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Effect of In-cylinder Environment on Spray Characteristics of Diesel and Biodiesel

Wei Fu[1*], Fengyu Li[2], Kesheng Meng[3], Yanju Liu[4], Weidong Shi[5], Qizhao Lin[6]

Abstract The objective of this paper is to investigate the spray characteristics of diesel and biodiesel in different in-cylinder environments, including spray tip penetration, spray cone angle, projected spray area, and spray tip velocity. The in-cylinder environment was set to two different ambient pressures and five temperature gradients. The results showed that both ambient pressure and temperature had a significant effect on the spray characteristics of diesel and biodiesel. Higher ambient temperatures under non-evaporating conditions increased the spray tip penetration and projected spray area of the fuel. Biodiesel in the same in-cylinder environment exhibited different spray characteristics due to different physical properties compared to diesel. In addition, the initial breakup mechanism of the spray was analyzed using dimensionless numbers.

Keywords: In-cylinder Environment.

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TRACK: BUSINESS MANAGEMENT AND SOCIAL SCIENCES

Adopting Virtual Reality (VR) in Project Management: Development of a Competency Model

Dr Jiwat Ram*

Abstract Virtual reality (VR) is a fast-growing technology with applications in healthcare, entertainment, education and business management, just to mention a few. Yet, little is known about its usefulness and need in project management (PM) for improving competencies. Addressing the gap, this study examines: 'what factors drive the need to adopt VR for improving PM competencies?' Taking a two-pronged approach, first the study conducts a literature review to propose factors that explain the need to adopt VR in PM. Then underpinned by the "Theory of Organizational Motivation", the study proposes a number of factors to develop a PM competency model. The literature results show that (1) improved scenario-based planning; (2) engaged human management; (3) improved problem solving capabilities; (4) effective issues management; (5) tra-gile management; and (6) improved competencies in new project methodologies/techniques development are some of the factors that drive the need to adopt VR in PM. We propose that by adopting VR in PM, organizations develop capabilities by simulating various aspects of PM planning, execution and control. VR will allow PM staff to simulate various hypothetical scenarios involving changes, uncertainties, processes, issues and quality problems to learn how to deal with adverse impacts of the scenarios. PM staff will be able to learn effective ways of people management including dealing with stakeholders on delicate matters using simulated VR environment by using VR applications such as Second Life. Theoretically, the study develops a new model of PM competencies and proposes some new factors which drive the need for adopting VR to improve PM efficiencies. The results also extend application of the theory of organizational motivation to VR adoption context. Managerially, the proposed model serves as a stimulus for project staff/senior managers to understand the role of VR adoption in PM competency development and improve chances of successful delivery of projects.

Keywords: Virual reality, Second Life, Project Management.

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The Role of the thera Sangamitta introducing Buddhism to Sri Lanka during the 3rd century B.C.E

Dr. Nadeesha Gunawardana*

Abstract As mentioned in the Mahāvaṃsa the daughter of king Aśoka was Saṃgamitta, was married to Aggibrahma. Whilst the prince Tissa the brother of the Aśoka receiving the pabbajjā from the thēra Mahādhammarakkhita with four hundred thousand persons the nephew of the Aśoka, Aggibrahma ordained together with them. The son of these two was Sumana. Mahāvaṃsa describes since the time of the Aggibrahma's pabbajjā Saṃgamtta looked forward to enter the order. Saṃgamitta received the pabbajja at the age of eighteen. On the same day she received the shikshadāna. The directress of Saṃgamittā was the renowned Dhammapālā and the her teacher was Ayupālā. She received the pabbajjā in the sixth regnal year of king Dhammāsoka. The king Dēvanampiyatiss's nephew Ariṭṭa was entrusted to bring the great Bodhi tree and the thēri Saṃghamittā. When the King Dhammāśoka asked the willingness of the thēri Saṃghamitta, to go to Sri Lanka, she said "Weighty is the word of my brother, O great king; many are they that must receive the pabbajjā therefore must I depart thither." The queen Anulā, who with five hundred maidens and women of the royal harem had accepted the ten precepts, wearing yellow robe, waited for the pabbajjā, looking for the arrival of thēri Saṃgamiṭṭā. The mention is made in Mahāvaṃsa they were aboded in the pleasant nunnery built by the king in a certain part of the city. It says since the nunnery was inhabited by these lay sisters it became known in Laṅkā by the name Upāsikāvihāra. This paper proposes to discuss the significance of all these scenarios.

Keywords: Mahāvamsa, Records, Chronicles, Pabbajjā.

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Internet-Supported Collaborative Case Analyses for Equity and Inclusion

Dr. Anupam Das[1*], Craig D. Howard[2]

Abstract Despite being a largely democratic method, analyses of a case can falter in cultures where the faculty are accorded a position of higher power. Often, the classroom setting in itself encourages an aggressive style of interaction. Consequently, the context of such discussions results in the dominance of a handful of extroverted students. Furthermore, in a large classroom the instructors may not only find it challenging to engage each student in the face-to-face discussion but may also face difficulty in evaluating participatory students as typically there is no traceable record of the discussion for a close investigation. Thus, there was a need for creating an egalitarian case analyses session. In doing so, the instructor brought the concept of Internet-Supported Collaborative Case Discussion. The objective of this experiment was to understand if the students' communicative competence in the internet-supported collaborative case analyses were indicative of their overall course performance.

A total of 29 students of an executive MBA program were divided in seven groups. The members of each group analysed the case collaboratively with the other members of the group using only WhatsApp chat. The instructor was only a silent member of each WhatsApp group. Each group wrote a report of the case analyses that was evaluated and the grade assigned to each group was part of each student's final course grade. After assigning the final grade, the chat logs of all the seven groups were analysed using the methods of computer-mediated discourse analyses. The results indicate that the students who received the lowest grade need further improvement both in their communicative competence and analytical skills. However, the students who received the average grade were mostly lacking in analytical skills. Moreover, the method also offered the Instructor more time to closely evaluate the quality of each student's participation in the discussion.

Keywords: Case-study, collaboration, Internet, WhatsApp.

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Changing Relations Between Fan Cultures and Industry: The Legitimation Paradox

Dr. Judith Fathallah*

Abstract The explosion of digital media and user generated content means that media industries have more direct contact with fan cultures than ever before. Fansćritique, discussion and transformative adaptations of media texts are now highly visible to media authors and owners. It is now largely accepted that attempting to quash fan-made media via copyright is ineffective and often damaging to brands. Instead, media companies have engaged with fan cultures in a variety of ways. Relations between fan cultures and producers are thus changing rapidly, as are concepts of authorship and ownership of popular texts. Utilising principles of discourse analysis which can be adapted and combined with quantitative methods for application to sites such as LiveJournal, YouTube and Tumblr I demonstrate the the ways that fans are claiming access to the concept of authorship, even as their practices can paradoxically inform the dominant industry discourse; analyse some strategies of engagement from the media industries concerned; and offer some evidence-based suggestions for best practice in engaging with the increasingly profitable and visible active fan audience.

Keywords: Fan Studies, Fan Cultures, Fan Fiction, Media Industry, Convergence.

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