



ICIAfS

# *Conference Program*

## **2008 4th International Conference on Information and Automation for Sustainability (ICIAfS'08)**

*Sustainable Development through Effective Man-Machine Co-existence*

**Galle Face Hotel, Colombo, Sri Lanka**

**12-14 December 2008**

**Pre-Conference Workshops/Tutorials**

**11 December 2008**

## 11<sup>th</sup> December 2008: Workshops/Tutorials

Session: 11A 1	Date: 11 <sup>th</sup> December, 2008	Time: 9:00-17:00	Venue: Room A
Session Title: <b>Data Mining and Business Intelligence</b>			
Session Chair: Dr. Shehan Perera, University of Moratuwa, Sri Lanka			
Session Co-Chair: Dr. Ravi Koggalage, Director, Dialog Research Lab, University of Moratuwa, Sri Lanka			
09:00 – 09:45	Introduction to Data Mining & Business Intelligence Dr. Shehan Perera, University of Moratuwa, Sri Lanka		
09:45 – 10:20	Data Mining Fundamentals Dr. Shehan Perera, University of Moratuwa, Sri Lanka		
10:20 – 10:40	<b>Tea Break</b>		
10:40 – 12:10	Data Mining Fundamentals contd. Dr. Shehan Perera, University of Moratuwa, Sri Lanka		
12:10 – 13:10	<b>Lunch Break</b>		
13:10 – 14:30	BI with FAST Enterprise Search Platform Dr. Buddhinath Jayayatilaka and Mr. Morten Johnsen, Creative Solutions		
14:30 – 15:50	Data Mining Applications Mr. Daswin De Silva, University of Monash, Australia		
15:50 – 16:10	<b>Tea Break</b>		
16:10 – 17:00	BI Applications BI with IBM Cognos 8: M. Alroy Mascenghe, IBM Sri Lanka		

## 11<sup>th</sup> December 2008

Session: 11B 1	Date: 11 <sup>th</sup> December, 2008	Time: 9:00-17:00	Venue: Room B
Session Title: <b>Robotics and Automation</b>			
Session Chair: Dr. Ranga Rodrigo, University of Moratuwa, Sri Lanka			
Session Co-Chair: Dr. Rohan Munasinghe, University of Moratuwa, Sri Lanka			
09:00 – 10:20	Introduction to Rover Autonomy Dr. Ashley Stroupe, NASA Jet Propulsion Laboratory, USA		
10:20 – 10:40	<b>Tea Break</b>		
10:40 – 12:10	Computer Vision Applications in Automations Dr. Ranga Rodrigo, University of Moratuwa		
12:10 – 13:10	<b>Lunch Break</b>		
13:10 – 14:30	Robot Designs and Micro-controllers Dr. Rohan Munasinghe, University of Moratuwa, Sri Lanka		
14:30 – 15:50	Active Vision: Applications, Perception, and Control Dr. Sisil Kumarawadu, University of Moratuwa, Sri Lanka		
15:50 – 16:10	<b>Tea Break</b>		
16:10 – 17:00	Robots for Society Needs Mr. Manoj Liyanage, Saga University, Japan		

# Conference Program

**12<sup>th</sup> December, 2008**

Session: 12A 1	Date: 12 <sup>th</sup> December, 2008	Time: 9:00-10:20	Venue: Room A
Session Title: <b>Controls, Robotics and Automation</b>			
Session Chair: Prof. Kazumi Nakamatsu, University of Hyogo, Japan			
Session Co-Chair: Dr. Rohan Munasinghe, University of Moratuwa, Sri Lanka			
09:00 – 09:20	Design and Implementation of an UAV Controller system with Precise Tracking (#1569162503) WTMS Tennakoon and SR Munasinghe, University of Moratuwa, Sri Lanka		
09:20 – 09:40	Compensator Design by Pole-Zero adjustment for a Typical Position Control System (#1569140303) R Shanmugasundram, Sri Ramakrishna Engineering College, India C Ganesh, Sri Ramakrishna Institute of Technology, India N Yadaiah, JNTU College of Engineering, India KJ Poornaselvan, Government College of Technology, India		
09:40 – 10:00	Centralized Traffic Controlling System for Sri Lanka Railways (#1569141745) ALATD Ambegoda, WTS De Silva, KT Hemachandra, TN Samarasinghe, and ATLK Samarasinghe, University of Moratuwa, Sri Lanka		
10:00 – 10:20	A Para Consistent Logic Program bf-EVALPSN and its Application to Process Order Control (#1569144856) Kazumi Nakamatsu, University of Hyogo, Japan Seiki Akama, University of Tsukuba, Japan Jair Minoro Abe, Paulista University, Brazil		

Session: 12B1	Date: 12 <sup>th</sup> December, 2008	Time: 9:00-10:20	Venue: Room B
Session Title: <b>Intelligent Robots and Man-machine Co-existence</b>			
Session Chair: Dr. Prashan Premaratne, University of Wollongong, Australia			
Session Co-Chair: Prof. Roziati Zainuddin, University of Malaya, Malaysia			
09:00 – 09:20	Role of the Context in Intuitive Combination of Evidence (#1569141187) Damith Senaratne, University of Alberta, Canada Chulantha Kulasekere, University of Moratuwa, Sri Lanka		
09:20 – 09:40	Analysis of Video Content in Multi Codec Formats with Compacted Dither Coding (#1569141277) Lochandaka Ranathunga, Nor Aniza Abdullah, and Roziati Zainuddin, University of Malaya, Malaysia		
09:40 – 10:00	Feature based Stereo Correspondence using Moment Invariants (#1569141643) Prashan Premaratne and Farzad Safaei, The University of Wollongong, Australia		
10:00 – 10:20	A Multi-Mutation Pattern Immune Network for Intrusion Detection (#1569141681) Linhui Zhao and Xin Fang, Beijing Union University, China Yaping Dai, Beijing Institute of Technology, China		

Session: 12C1	Date: 12 <sup>th</sup> December, 2008	Time: 9:00-10:20	Venue: Room C
Session Title: <b>Wired and Wireless Integration</b>			
Session Chair: Prof. Dileeka Dias, University of Moratuwa, Sri Lanka			
Session Co-Chair: Dr. Nalin Ranasinghe, University of Colombo, Sri Lanka			
09:00 – 09:20	Novel Approach for RSS Calibration in DCM -based Mobile Positioning using Propagation Models (#1569140877) Pushpika Wijesinghe and Dileeka Dias, University of Moratuwa, Sri Lanka		
09:20 – 09:40	Database Correlation for GSM Location in Outdoor & Indoor Environments (#1569141269) B.D.S.Lakmali and Dileeka Dias, University of Moratuwa, Sri Lanka		
09:40 – 10:00	An Overall Energy-Balanced Routing Protocol for Wireless Sensor Network (#1569162141) Li Hong and Shu-ling Yang, China University of Petroleum, China		
10:00 – 10:20	A Decentralized Approach for the Discovery of Dynamic Automobile Congestion (#1569141695) M Farazy Fahmy and DN Ranasinghe, University of Colombo School of Computing, Sri Lanka		
10:20 – 10:40	<b>Tea Break</b>		

Session: 12A2	Date: 12 <sup>th</sup> December, 2008	Time: 10:40 – 12:10	Venue: Room A
Session Title: <b>Keynote Address</b>			
Session Chair: Prof. Gamini Dissanayake, University of Technology, Sydney, Australia.			
Session Co-Chair: Dr. Lanka Udawatta, University of Moratuwa, Sri Lanka			
10:40 – 12:10	Planetary Robotics Keynote Address by Dr. Ashley Stroupe, NASA, Jet Propulsion Laboratory, USA		
12:10 – 13:10	<b>Lunch Break</b>		

Session: 12A3	Date: 12 <sup>th</sup> December, 2008	Time: 13:10 – 14:30	Venue: Room A
Session Title: <b>Intelligent Robots and Man-machine Co-existence</b>			
Session Chair: Prof. Gamini Dissanayake, University of Technology, Sydney, Australia			
Session Co-Chair: Mr. Gihan Seneviratne, University of Colombo, Sri Lanka			
13:10 – 13:30	VoizLock – Human Voice Authentication System using Hidden Markov Model (#1569162229) RG Maduranga M Jayamaha, Maduri RR Senadheera, T Nuwan C Gamage, KD Pavithra B Weerasekara, Gayan A Dissanayaka, and G Nuwan Kodagoda, Sri Lanka Institute of Information Technology, Sri Lanka		
13:30 – 13:50	Interactive Dialogue for Behavior Teaching to Robots based on Primitive Behaviors with Fuzzy Voice Commands (#1569139115) Buddhika Jayasekara, Keigo Watanabe, and Kiyotaka Izumi, Graduate School of Science and Engineering, Japan		
13:50 – 14:10	Evidence Theory based Decision Fusion for Masquerade Detection in IEC61850 Automated Substations (#1569144517) Upeka Premaratne, Jagath Samarabandu, and Tarlochan Sidhu, University of Western Ontario, Canada Bob Beresh, Jian-Cheng Tan, Kinectrics Inc., Canada		
14:10 – 14:30	Web-based English-Sinhala Translator in Action (#1569141575) Budditha Hettige, University of Sri Jayewardenepura, Sri Lanka Asoka S. Karunananda, University of Moratuwa, Sri Lanka		

Session: 12B3	Date: 12 <sup>th</sup> December, 2008	Time: 13:10 – 14:30	Venue: Room B
Session Title: <b>Controls, Robotics and Automation</b>			
Session Chair: Dr. Prashan Premaratne, University of Wollongong, Australia			
Session Co-Chair: Dr. Sanath Jayawardena, University of Moratuwa, Sri Lanka			
13:10 – 13:30	A Novel Approach for Automation of Precision Calibration Process ( #1569162171) Na Li, Qin Liu, Lili Wang, and Xiaoyi Liu, Tongji University, China		
13:30 – 13:50	Efficient Utilization of Employees in the Garment Industry Using Operations Research (#1569160679) WKI Fernando, and DJC Suriyaarachchi, University of Kelaniya, Sri Lanka		
13:50 – 14:10	Remote Monitoring and Control System for a Water Purification Plant (#1569162427) DNP Thalakatuna, TAT Thilakaratne, YBMS Jayasinghe, THKM Silva, and SR Munasinghe, University of Moratuwa, Sri Lanka		
14:10 – 14:30	Predicting the Thermal Conductivity of Nanofluids based on Suspension Viscosity (#1569145543) Haisheng Chen, University of Leeds, UK and Chinese Academy of Science, China Sanjeeva, Witharana, , Yulong Ding, University of Leeds, UK Yi JIN, University of Leeds, UK and University of Science and Technology, China Chongyoun Kim, Korea University, Seoul, Korea		

Session: 12C3	Date: 12 <sup>th</sup> December, 2008	Time: 13:10 – 14:30	Venue: Room C
Session Title: <b>Controls, Robotics and Automation</b>			
Session Chair: Prof. Amit Konar, Jadavpur University, India			
Session Co-Chair: Prof. Steve Hansen, University of Western Sydney, Australia			
13:10 – 13:30	A Novel Parser Design Algorithm Based on Artificial Ants (#1569151225) Deepyaman Maiti, Ayan Acharya, and Amit Konar, Jadavpur University, India Janarthanan Ramadoss, Jaya Engineering College, India		
13:30 – 13:50	A Study of the Grunwald-Letnikov Definition for Minimizing the Effects of Random Noise on Fractional Order Differential Equations (#1569162601) Mithun Chakraborty, Deepyaman Maiti, and Amit Konar, Jadavpur University, India Ramadoss Janarthanan, Jaya Engineering College, India		
13:50 – 14:10	Characteristics of Sonar Range Sensor SRF05 (#1569164021) A Wickramasooriya, G Hamilan, SIL Jayawardena, LWMDLW Wijemanne, and SR Munasinghe, University of Moratuwa, Sri Lanka		

Session: 12A4	Date: 12 <sup>th</sup> December, 2008	Time: 14:30 – 15:50	Venue: Room A
Session Title: <b>Intelligent Robots and Man-machine Co-existence</b>			
Session Chair: Mr. Gihan Seneviratne, University of Colombo, Sri Lanka			
Session Co-Chair: Dr. Rohan Munasinghe, University of Moratuwa, Sri Lanka			
14:30 – 14:50	Classification of Protein Sequences using the Growing Self-Organizing Map (#1569142597) Norashikin Ahmad, Dammindala Alahakoon, and Rowena Chau, Monash University, Australia		
14:50 – 15:10	Minimum Kurtosis CMA De-convolution for Blind Image Restoration (#1569160731) Pradeepa D. Samarasinghe and Rodney A. Kennedy, The Australian National University, Australia		
15:10 – 15:30	Investigating the Effect of Illumination and Viewpoint on Image Recognisability (#1569166679) Jeewanee Bamunusinghe and Dammindala Alahakoon, Monash University, Australia		
15:30 – 15:50	Self Learning and its Implications for Machine Understanding (#1569166799) Wikum Dinalankara, Daswin De Silva, and Dammindala Alahakoon, Monash University, Australia		

Session: 12B4	Date: 12 <sup>th</sup> December, 2008	Time: 14:30 – 15:50	Venue: Room B
Session Title: <b>Technical Advances in Disaster Management, Welfare, and Rehabilitation for Sustainability</b>			
Session Chair: Dr. Ravi Koggalage, Director, Dialog-University of Moratuwa Research Laboratory			
Session Co-Chair: Dr. Sisil Kumarawadu, University of Moratuwa, Sri Lanka			
14:30 – 14:50	Controlling a Wheelchair by Use of EOG Signal (#1569161967) S Yathunanthan, LUR Chandrasena, A Umakanthan, V Vasuki, and SR Munasinghe, University of Moratuwa, Sri Lanka		
14:50 – 15:10	An Analysis of Facial Morphology for the Robot Assisted Smile Recovery (#1569162473) Dushyantha Jayatilake, Anna Gruebler, and Kenji Suzuki, University of Tsukuba, Japan		
15:10 – 15:30	A fuzzy ANP Model to Assess the State of Organizational Readiness for ERP Implementation (#1569165471) Jafar Razmi, Reza Ghodsi and Mohamad Sadegh Sangari, University of Tehran, Iran		
15:30 – 15:50	Development of a 6DOF Exoskeleton Robot for Human Upper-Limb Motion Assist (#1569139673) R ARC Gopura and Kazuo Kiguchi, Saga University, Japan		

Session: 12C4	Date: 12 <sup>th</sup> December, 2008	Time: 14:30 – 15:50	Venue: Room C
Session Title: <b>Wired and Wireless Integration</b>			
Session Chair: Prof. Priyantha Kumarawadu, Sri Lanka Institute of Information Technology, Sri Lanka			
Session Co-Chair: Dr. Sankassa Senavirathne, Lanka Bell			
14:30 – 14:50	FAMA/TDMA Hybrid MAC for Wireless Sensor Networks (#1569141529) Nuwan Gajaweera, Dileeka Dias, University of Moratuwa, Sri Lanka		
14:50 – 15:10	Wireless Sensor Network Test-bed for Mobile Data Communications (#1569141637) DN Jayasingha, NPML Jayawardhane, PN Karunanayake, GD Karunaratne, and D Dias, University of Moratuwa, Sri Lanka		
15:10 – 15:30	QoS Preemptive Routing with Bandwidth Estimation for Improved Performance in Ad Hoc Networks (#1569162524) J Thriveni, VL Alekhya, N Deepa, B Uma, A Alice, GL Prakash, KR Venugopal, and LM Patnaik, Bangalore University, India		
15:50 – 16:10	<b>Tea Break</b>		

Session: 12A5	Date: 12 <sup>th</sup> December, 2008	Time: 16:10 – 17:30	Venue: Room A
Session Title: <b>Information and Communication Technology (ICT) and Social Transformation</b>			
Session Chair: Prof. Athula Ginige, University of Western Sydney, Australia			
Session Co-Chair: Dr. Chatura De Silva, University of Moratuwa, Sri Lanka			
16:10 – 16:30	Dimensions of e-Transformation (#1569141303) Ana Hol and Athula Ginige, University of Western Sydney, Australia		
16:30 – 16:50	Region-of-Activity Based Coding for Transform Domain DVC (#1569145165) M.B. Badem, W.A.C. Fernando, W.A.R.J. Weerakkody, S.L.P. Yasakethu, and A. M. Kondo, University of Surrey, UK		
16:50 – 17:10	Multi Chanel Access ZigBee Gateway with Plug & Play Device Interface for Smart Home/Office Automation (SmartBee) (#1569152891) GSH De Silva, LWRM De Silva, PWK Ishara, MPHS Kumara, and T. Ginige, University of Ruhuna, Sri Lanka		
17:10 – 17:30	A Rule based Approach to Modeling the Effect of Tobacco Control Policies (#1569166451) Xiaojiang Ding, Susan Bedingfield, and Chung-Hsing Yeh, Clayton School of Information Technology, Monash University, Victoria, Australia Ron Borland and David Young, The Cancer Council Victoria, Australia Sonja Petrovic-Lazarevic, Ken Coghill, and Jian Ying Zhang, Department of Management, Caulfield Campus, Monash University, Victoria, Australia		

Session: 12B5	Date: 12 <sup>th</sup> December, 2008	Time: 16:10 – 17:30	Venue: Room B
Session Title: <b>Wired and Wireless Integration</b>			
Session Chair: Prof. Ranjit Perera, Director General, Public Utilities Commission of Sri Lanka			
Session Co-Chair: Prof. Priyantha Kumarawadu, Sri Lanka Institute of Information Technology, Sri Lanka			
16:10 – 16:30	Design and Implementation of Bluetooth Based General Purpose Controlling Module (#1569144609) SP Wijetunge, US Wijetunge, GRV Peiris, CS Aluthgedara, and ATLK Samarasinghe, University of Moratuwa, Sri Lanka		
16:30 – 16:50	Application of Security Metrics in Auditing Computer Network Security: A Case Study (#1569144521) Upeka Premaratne, Jagath Samarabandu, and Tarlochan Sidhu, University of Western Ontario, Canada Bob Beresh and Jian-Cheng Tan, Kinectrics Inc., Canada		
16:50 – 17:10	Zigbee Wireless Vehicular Identification and Authentication System (#1569160505) SD Dissanayake, PPCR Karunasekara, DD Lakmanarachchi, AJD Rathnayaka, and ATLK Samarasinghe, University of Moratuwa, Sri Lanka		
17:10 – 17:30	Algorithms for Node Clustering in Wireless Sensor Networks (#1569162065) P Kumarawadu, Sri Lanka Institute of Information Technology, Sri Lanka DJ Dechene, M Luccini, and A Sauer, University of Western Ontario, Canada		

Session: 12C5	Date: 12 <sup>th</sup> December, 2008	Time: 16:10 – 17:30	Venue: Room C
Session Title: <b>Wired and Wireless Integration</b>			
Session Chair: Eng. Kithsiri Samarasinghe, University of Moratuwa, Sri Lanka			
Session Co-Chair: Dr. Sankassa Senavirathne, Lanka Bell			
16:10 – 16:30	An Indoor Tracking-based Handoff Mechanism for VoIP Applications in IEEE 802.11 WLANs (#1569162211) CheolHee Lee, SungHoon Seo, and JooSeok Song, Yonsei University, Korea		
16:30 – 16:50	Mobile-Velocity adaptive Vertical Handoff in Integrated WLAN and WiBro Networks (#1569162461) Bin Cha, SungHoon Seo, and JooSeok Song, Yonsei University, Korea YeoMin Choi, J2MSoft Inc., Korea		
16:50 – 17:10	The Blue Zone – Mobile Bluetooth Network Expansion (#1569162479) AFR Shafie, MMM Ikram, CS Liyanage, AE Alahakoon, NM Liyanage, and G Nuwan Kodagoda, Sri Lanka Institute of Information Technology, Sri Lanka		
17:10 – 17:30	A Hybrid of Reactive and Proactive Approaches based on Neighbors' Conditions of Nodes for Mobile Ad-hoc Networks (#1569162495) Tooska Dargahi and Amir Masoud Rahmani, Islamic Azad University, Iran Ahmad Khademzadeh, Iran Telecommunication Research Center, Iran		

Session: 12A6	Date: 12 <sup>th</sup> December, 2008	Time: 19:00 – 22:00	Venue: Room A
ICIAfS 2008 Conference Inauguration, Student Paper Award Ceremony and Conference Banquet			

## 13<sup>th</sup> December 2008

Session: 13A1	Date: 13 <sup>th</sup> December, 2008	Time: 09:00 – 10:20	Venue: Room A
Session Title: <b>Controls, Robotics and Automation</b>			
Session Chair: Prof. Kazumi Nakamatsu, University of Hyogo, Japan			
Session Co-Chair: Dr. Sanath Jayawardena, University of Moratuwa, Sri Lanka			
09:00 – 09:20	Simultaneous Localization and Mapping: A Pseudo-linear Kalman Filter (PLKF) Approach (#1569141483) Chandima Dedduwa Pathirana, Keigo Watanabe, Buddhika Jayasekara, and Kiyotaka Izumi, Saga University, Japan		
09:20 – 09:40	Space complexity Optimization for Nano Electronic Devices based on Evolutionary Computation (#1569162469) Andrej Jazbec, Nikolaj Zimic, Primoz Pecar, Iztok Lebar Bajec, and Miha Mraz, University of Ljubljana, Slovenia		
09:40 – 10:00	An Efficient Global Optimization Approach to Multi-Robot Path Exploration Problem using Hybrid Genetic Algorithm (#1569139667) KS Senthilkumar and K. K. Bharadwaj, Jawaharlal Nehru University, India		
10:00 – 10:20	Tuning PID and PI $\lambda$ D $\delta$ Controllers using the Integral Time Absolute Error Criterion (#1569162605) Deepyaman Maiti, Ayan Acharya, Mithun Chakraborty, and Amit Konar, Jadavpur University, India Ramadoss Janarthanan, Jaya Engineering College, India		

Session: 13B1	Date: 13 <sup>th</sup> December, 2008	Time: 09:00 – 10:20	Venue: Room B
Session Title: <b>Information and Communication Technology (ICT) and Social Transformation</b>			
Session Chair: Ing. Jaroslav Ledvinka, Masaryk university, Czech Republic			
Session Co-Chair: Dr. KP Hewagamage, University of Colombo, Sri Lanka			
09:00 – 09:20	Modeling TVET Institutes as Learning Organizations (#1569141547) Rajeevi Guruge, Sri Lanka Technical College, Sri Lanka Shiromi Arunathileka, University of Colombo School of Computing, Sri Lanka		
09:20 – 09:40	Internal Structure and Semantic Web Link Structure Based Ontology Ranking (#1569141607) Samantha K. Rajapaksha and Nuwan Kodagoda, Sri Lanka Institute of Information Technology, Sri Lanka		
09:40 – 10:00	Using Swarm Intelligence to Perceive the Semantic Web (#1569141609) Sanjaya Ratnayake, Ruvindee Rupasinghe, Anuruddha Ranatunga, Shalinda Adikari, Sajayahan de Zoysa, Kamala Tennakoon, and Asoka Karunananda, University of Moratuwa, Sri Lanka		
10:00 – 10:20	Adaptive Distributed Job Scheduler for Java Compute Servers (#1569141645) WDIA Kalawila and DN Ranasinghe, University of Colombo School of Computing, Sri Lanka		

Session: 13C1	Date: 13 <sup>th</sup> December, 2008	Time: 09:00 – 10:20	Venue: Room C
Session Title: <b>Intelligent robots and man-machine co-existence</b>			
Session Chair: Dr. Liwan Liyanage, University of Western Sydney, Australia			
Session Co-Chair: Dr. Sanath Jayasena, University of Moratuwa, Sri Lanka			
09:00 – 09:20	Image Gradient Estimation with Wide Support Kernels (#1569141703) Hakan Guray Senel and Anadolu University, Turkey		
09:20 – 09:40	A Natural Algorithmic Approach to the Structural Optimisation of Neural Networks (#1569141753) NP Suraweera, University of Colombo, Sri Lanka DN Ranasinghe, University of Colombo School of Computing, Sri Lanka		
09:40 – 10:00	A Data Mining Algorithm to Analyze Stock Market Data using Lagged Correlation. (#1569141775) Cicil Fonseka and Liwan Liyanage, University of Western Sydney, Australia		
10:00 – 10:20	An Approach to Develop Multi Techniques Integrated Expert System For Diagnosis Of Human Constitutions (#1569144033) D.S. Kalana Mendis, Advanced Technological Institute, Sri Lanka Asoka. S. Karunananda, University of Moratuwa, Sri Lanka U. Samaratunga, University of Kelaniya, Sri Lanka		
10:20 – 10:40	<b>Tea Break</b>		

Session: 12A2	Date: 13 <sup>th</sup> December, 2008	Time: 10:40 – 12:10	Venue: Room A
Session Title: <b>Plenary Talk on Emerging Information Society and Organizational Transformation</b>			
Session Chair: Dr. Lanka Udawatta, University of Moratuwa, Sri Lanka.			
Session Co-Chair: Ms. Vishaka Nanayakkara, University of Moratuwa, Sri Lanka.			
10:40 – 12:10	By Prof. Athula Ginige, University of Western Sydney, Australia Reference: A Roadmap, Methodology and Technology Framework to support eTransformation (#1569162649)		
12:10 – 13:10	<b>Lunch Break</b>		

Session: 13A3	Date: 13 <sup>th</sup> December, 2008	Time: 13:10 – 14:30	Venue: Room A
Session Title: <b>Information and Communication Technology (ICT) and Social Transformation</b>			
Session Chair: Prof. Lalith Gamage, Sri Lanka Institute of Information Technology, Sri Lanka			
Session Co-Chair: Dr. Chandana Gamage, University of Moratuwa, Sri Lanka			
13:10 – 13:30	Collaboration Opportunities in Second Life: Collective Experiences (#1569141655) Steve Hansen, Sharon Griffith, Miko Ademagic, Chris Armitage, Tim Faulkner, Nemanja Gavrilovic, Lawrence Lock, Simone Miltiadis, Pranav Ramnath, Malik Turdush, Rob Sebastian, Matt Whitaker, and Chris Hansen, University of Western Sydney, Australia		
13:30 – 13:50	Comparing the User-Interface Design of Banking Websites: A Survey on the Sri Lankan Banking Sector (#1569141771) RAK Ranawaka, National Institute of Business Management, Sri Lanka		
13:50 – 14:10	A Blend of Adaptive and Digital Learning Towards Language Proficiency (#1569143738) Jagath Wickremaratne, Geethanjali Wimalaratne, and Vineeta Goonetilleke, Sri Lanka Institute of Information Technology, Sri Lanka		
14:10 – 14:30	Developing a Collaborative Map Creation Support System by Multi-modal Information-gathering (#1569143803) Takanori Terashima, Hisako Sekizuka, and Tamae Sasaki, Miyagi University, Japan		

Session: 13B3	Date: 13 <sup>th</sup> December, 2008	Time: 13:10 – 14:30	Venue: Room B
Session Title: <b>Information and Communication Technology (ICT) and Social Transformation</b>			
Session Chair: Dr. KP Hewagamage, University of Colombo, Sri Lanka			
Session Co-Chair: Prof. Athula Ginige, University of Western Sydney, Australia			
13:10 – 13:30	Knowledge Management Implications in Sri Lankan ERP Implementation Projects (#1569144351) Theekshana Suraweera, Suvimali Mahagederawatte, Chathurangika Kahandawaarachchi, Pulathisi Hewamallikage, Dilhan Periyapperuma, and Madurangi Adipola, Sri Lanka Institute of Information Technology, Sri Lanka		
13:30 – 13:50	Quality Analysis of Side Information Refinement in Transform-Based DVC (#1569144703) S.L.P.Yasakethu, W.A.C. Fernando, M.B.Badem, and A.M.Kondo, University of Surrey, UK		
13:50 – 14:10	Privacy Preserving Clustering by Cluster Bulging for Information Sustenance (#1569149489) Mohammad Ali Kadampur, Somayajulu D.V.L.N, S.S.Shivaji Dhiraj, Shailesh G.P.Satyam, National Institute of Technology, India		
14:10 – 14:30	A Framework to Enhance Email based Business Processes (#1569160979) Sujani Samannadie Sumanadasa, Sri Lanka Institute of Information Technology, Sri Lanka Jeewani Anupama Ginige, University of Western Sydney, Australia		

Session: 13C3	Date: 13 <sup>th</sup> December, 2008	Time: 13:10 – 14:30	Venue: Room C
Session Title: <b>Intelligent Robots and Man-machine Co-existence</b>			
Session Chair: Prof. Pervez Ahmed, King Saud University, Riyadh, Saudi Arabia			
Session Co-Chair: Dr. Lanka Udawatta, University of Moratuwa, Sri Lanka			
13:10 – 13:30	Extended Visual Object based Intelligent Visual Programming Environment (#1569144965) P. Ahmed and S. Ahmadi, King Saud University, Saudi Arabia		
13:30 – 13:50	Analysis of Grasping and Slip Detection of the Human Hand (#1569160513) C. U. S. Edussooriya, H. S. S. Hapuachchi, D. Rajiv, R. A. H. Ranasinghe, and S. R. Munasinghe, University of Moratuwa, Sri Lanka		
13:50 – 14:10	Determination of Maximum Possible Fuel Economy of HEV for Known Drive Cycle: Genetic Algorithm Based Approach (#1569162017) R. Sudath Wimalendra, Lanka Udawatta, E. M. C. P. Edirisinghe, and Sudarshana Karunarathna, University of Moratuwa, Sri Lanka		
14:10 – 14:30	Traffic Signal Control Based on Adaptive Neuro-Fuzzy Inference (#1569162101) C. T. Wannige and D.U.J.Sonnadara, University of Colombo, Sri Lanka		

Session: 13A4	Date: 13 <sup>th</sup> December, 2008	Time: 14:30 – 15:50	Venue: Room A
Session Title: <b>Information and Communication Technology (ICT) and Social Transformation</b>			
Session Chair: Ms. Vishaka Nanayakkara, University of Moratuwa, Sri Lanka			
Session Co-Chair: Dr. Shehan Perera, University of Moratuwa, Sri Lanka			
14:30 – 14:50	A New E-Government System by Documenting Information (#1569140777) Masoud Kargar, Taha Saderi, and Reza Ghanbarzadeh, Islamic Azad University, Iran		
14:50 – 15:10	Development of an Intelligent Framework for Semantic Laboratory (#1569141707) Sanka Ravipriya Hettiarachchi, National Instruments Singapore (Pte) Ltd, Singapore K.K. Tan, K.Z.Tang, T.H. Lee, and X.P. Tang, National University of Singapore, Singapore		
15:10 – 15:30	Non-repudiation Framework for E-Government Applications (#1569162137) Hasala Peiris, Lakshan Soysa, and Rohana Palliyaguru, Sri Lanka CERT, Sri Lanka		
15:30 – 15:50	Social Impact of SMS in Sri Lanka (#1569162361) Sumudu Wijetunge, Dialog Telekom PLC, Union Place, Colombo-2, Sri Lanka Pushpika Wijesinghe and Upul Gunawardana, University of Western Sydney, Australia		

Session: 13B4	Date: 13 <sup>th</sup> December, 2008	Time: 14:30 – 15:50	Venue: Room B
Session Title: <b>Information and Communication Technology (ICT) and Social Transformation</b>			
Session Chair: Prof. Gihan Dias, University of Moratuwa, Sri Lanka			
Session Co-Chair: Prof. Vinu Das, Saintgits College of Engineering, Kerala, India			
14:30 – 14:50	Carrier Frequency Offset Estimation for OFDM System using Extended Kalman Filter (#1569162379) Sankassa Senavirathne, Senior Manager, Lanka Bell Chandimal Jayawardena, Thisara Bandara, Sumudu Perera, Chandima Perera, Dhanushka Ranasinghe, and Sureni Wijerathna, Sri Lanka Institute of Information Technology, Sri Lanka		
14:50 – 15:10	Architecture for Knowledge Management over the Network (#1569162397) Vinu Das, Saintgits College of Engineering, Kerala, India		
15:10 – 15:30	Critical Review of Data Mining Techniques for Gene Expression Analysis (#1569162407) Mazin Aouf, Liwan Liyanage, and Steve Hansen, University of Western Sydney, Australia		
15:30 – 15:50	A Model to eTransform SMEs in Developing Countries (#1569162475) Mahesha Kapurubandara, University of Western Sydney, Australia		

Session: 13C4	Date: 13 <sup>th</sup> December, 2008	Time: 14:30 – 15:50	Venue: Room C
Session Title: <b>Intelligent robots and man-machine co-existence</b>			
Session Chair: Dr. Ravi Koggalage, Director, Dialog-University of Moratuwa Research Laboratory			
Session Co-Chair: Dr. Prashan Premaratne, University of Wollongong, Australia			
14:30 – 14:50	Fast Nonparametric Image Segmentation with Dirichlet Processes (#1569162341) K. A. D. N. K. Wimalawarne, University of Moratuwa, Sri Lanka		
14:50 – 15:10	A Deterministic Model for Analyzing the Dynamics of Ant System Algorithm and Performance Amelioration through a New Pheromone Deposition Approach (#1569162359) Ayan Acharya, Deepyaman Maiti, and Amit Konar, Jadavpur University, India Janarthanan Ramadoss, Jaya Engineering College, India		
15:10 – 15:30	Visual Tracking of Vehicles using Multi-resolution Analysis and Neural Network (#1569162383) Shehan Fernando and Lanka Udawatta, University of Moratuwa, Sri Lanka Pubudu Pathirana, Deakin University, Australia		
15:30 – 15:50	Eigenface Based Automatic Facial Feature Tagging (#1569162443) Suranga Wijeratne, Supul Jayawardena, Srimal Jayasooriya, Dulanjan Lokupathirage, Menuwan Patternot, and G. Nuwan Kodagoda, Sri Lanka Institute of Information Technology, Sri Lanka		
15:50 – 16:10	<b>Tea Break</b>		

Session: 13B5	Date: 13 <sup>th</sup> December, 2008	Time: 16:10 – 17:10	Venue: Room B
Session Title: <b>Information and Communication Technology (ICT) and Social Transformation</b>			
Session Chair: Dr. Sankassa Senavirathne, Lanka Bell			
Session Co-Chair: Prof. Pervez Ahmed, King Saud University, Riyadh, Saudi Arabia			
16:10 – 16:30	Axis2UNO: Web Services Enabled Openoffice.org (#1569162513) B.A.N.M. Bambarasinghe, H.M.S. Huruggamuwa, R.G. Ragel, and S. Radhakrishnan, University of Peradeniya, Sri Lanka		
16:30 – 16:50	Mathematical Processing of Syslog Messages from Routers and Switches (#1569162613) Karel Slavicek, Jaroslav Ledvinka, Michal Javornik, and Otto Dostal, Masaryk University, Czech Republic		

Session: 13C5	Date: 13 <sup>th</sup> December, 2008	Time: 16:10 – 17:10	Venue: Room C
Session Title: <b>Intelligent Robots and Man-machine Co-existence</b>			
Session Chair: Prof. Asoka Karunananda, University of Moratuwa, Sri Lanka			
Session Co-Chair: Mr. Nuwan Kodagoda, Sri Lanka Institute of Information Technology, Sri Lanka			
16:10 – 16:30	Learning Qualitative Relations in Real World Scenes (#1569162481) D.D.M. Ranasinghe and U. Ratnayake, The Open University, Sri Lanka A.S. Karunananda, University of Moratuwa, Sri Lanka		
16:30 – 16:50	Sinhala to English Language Translator (#1569162483) Dilshan De Silva, Asanga Alahakoon, Imesha Udayangani, Vishva Kumara, Devinda Kolonnage, Harindu Perera, and Samantha Thelijjagoda, Sri Lanka Institute of Information Technology, Sri Lanka		
16:50 – 17:10	A hybrid Multi-criteria Decision Making Model for ERP System Selection (#1569165475) Jafar Razmi and Mohamad Sadegh Sangari, University of Teheran, Iran		

### 14<sup>th</sup> December, 2008

Date: 14 <sup>th</sup> December, 2008	Time: 7:30 – 17:00
Conference Tour	