



**2011 5th Malaysian Conference in Software Engineering (MySEC)**

**PROGRAM BOOK**

## Keynote Speakers



### **Professor Pericles Locoupolos**

*Requirements Engineering in a Changing Landscape*

Professor

Management Science and Information Systems, Loughborough University, UK

**Professor Pericles Locoupolos** is a professor at the Management Science and Information Systems, Loughborough University, UK. He is currently the Director of Postgraduate Research Programmes for the Business School and the Research Co-ordinator of the Management Science and Information Systems Research Group. His research work focuses on supporting the transformation of large, complex and dynamic enterprise systems through the provision of information systems. Theoretical results derived from his research are applied on industrial scale problems in a variety of domains, such as banking, utilities, large-scale sports events etc.

His research has been supported by numerous research grants totalling in excess of €4.2 million to my research team, funded by the UK Engineering and Physical Sciences Research Council, the Commission of the European Union, the USA National Science Foundation and industry. He is editor of many journals and has published in leading journals such as ACM TOSEM, IEEE Trans on SMC, Information Systems, Information Systems Journal, Journal of Systems and Software, Information Software Technology and CAIS and many others.

### ***Keynote Topic: Requirements Engineering in a Changing Landscape***

**Abstract:** The field of Requirements Engineering is arguably the most critical of all Software Engineering phases. This is becoming more acute as software systems become more complex, multidisciplinary, infrastructural, pervasive and mission critical. The utility of current methods and tools in large multi-user Software Engineering projects has become uncertain. The changing landscape, within which requirements for systems need to be captured, elaborated upon and analysed, has highlighted the need for addressing requirements at the crossroads of business, engineering and design. Software development involves nowadays much more than its traditional focus and to this end a much more useful term is that of 'design requirements'. This talk will examine the current state of the art in Requirements Engineering and will examine the challenges

brought about by design requirements. The talk will introduce and discuss four research challenges in the field of requirements namely those of intertwining, evolution, architectures and complexity and will reflect on the need for adopting a different methodological ethos to dealing with requirements for future software systems.

## Keynote Speakers



**Professor Dato' Dr. Aziz Deraman**

*Software Certification: The Way Forward*

Vice Chancellor, University Malaysia Terengganu (UMT), Malaysia.

**Professor Dato' Dr. Aziz Deraman** is a professor of Software Engineering specialising in software process, management and certification. He is currently the Vice Chancellor at University Malaysia Terengganu (UMT). He also affiliated with various organisations and industries as an adviser, panel as well as a resident consultant in information technology. His research mainly focuses on IT strategic planning, software management and certification, medical computing and community computing. He has served as a consultant to several small and medium enterprises, large organizations, and government agencies.

His major research and development efforts includes the development of agriculture and e-community portals, software certification model, establishing standards and guidelines for organisation IT strategic planning, UKM Information Systems (Student, Financial & Human Resource Systems), ITHHO Information System, KUSZA Information Systems, IT Strategic Report For the State of Terengganu, Benefit and Monitoring Education System for MOE and preparing the tender specification for a Total Hospital Information systems (HUKM). His other ICT project contributions as a consultant are e-Ketengah (KETENGAH), Infodesa (KPLB), e-jariah (YAPEIM), e-WargaKota (DBKL), Bestari.Comm (Terengganu) and as a chief ICT Project Auditor (Terengganu). For his research efforts, he has published more than 100 articles and reports in journals, proceedings, books and other media both local and international.

### ***Keynote Topic: Software Certification: The Way Forward***

One of the most pressing issues with regards to the software product is to maintain its relevancy to the dynamics of the users' needs. Therefore, research on software quality improvement is one of the focuses and concerns in the software engineering community. With the advancements of software technology and practices, various software development methodologies and approaches have been developed to ensure the quality of the software produced. In the 70s and 80s, software itself was too dominant, thus most users had to adapt their needs to the provided functionalities. Thus, in those days most research focused on resolving software complexities in order to address the software quality issues. In the 90s, the emergence of internet and World Wide Web has changed our perceptions on the software. Software is not only important to the businesses but also to almost all aspects of our life. The emergence of social network applications and other varieties of software in the market has led to the domination of the users over the software. To show the importance of software, software product assessment and quality is given a specific standard, i.e. ISO 9126. As software becoming more accessible to the public at large through the use of internet and websites, users are becoming more critical in the quality of the services provided by the software. Therefore, the issue of quality would be best addressed through software certification process. In this lecture, past and current efforts on finding suitable software certification framework and model based on user's perspective will be discussed. Software quality factors will be more user-orientated in the future; hence effort on software certification should be more towards user-centric approach. This lecture will conclude with some insights on how to approach future research in software certification.

## Keynote Speakers



**Haji Safiee Bin Haji Mohammad**

*Creating Sustainable Software: HeiTech Padu's Experience*

President of HeiTech Padu Berhad, Malaysia

**Haji Safiee** is the President of HeiTech Padu Berhad and was appointed as an Executive Director of HeiTech Padu Berhad on 11 April 1995. He serves as a Member of the Voluntary Separation Scheme (VSS) Committee. He is also a Director in HeiTech e-Business Solutions Sdn. Bhd., Padusoft Sdn. Bhd. and Tricubes Berhad. He attended all six (6) Board Meetings held during the financial year 2008.

### ***Abstract: Creating Sustainable Software: HeiTech Padu's Experience***

Software sustainability refers to the ability of software to meet its development purpose over a long period of time. To achieve sustainability, software should be flexible enough to suit business and technology changes without becoming obsolete. Software sustainability is challenging to be achieved due to several reasons such as complex nature of the business and changes in rules and regulation to name a few. Among factors that affect sustainability include vendor commitment, solution incompatibility, evolving requirements, lack of architecture robustness and tightly coupled design. This presentation also portrays some case studies related to unsustainable software and computer system failures that occurred in the past both locally and internationally. Oxford Health Plan Billing System, Netscape, Bursa Malaysia and KLIA are among some cases discussed. Apart from the challenges of software sustainability, the presentation also discuss at a considerable length on addressing the issues on sustainability. In addressing software sustainability, understanding user requirements, complying with good architecture and programming practices, choosing the right technology platform are among factors that are addressed. The presentation is concluded with some lessons learnt, and do and don'ts related to software sustainability.

## Conference Schedule (12, 13, 14 December 2011)

Pre-Conference Workshop (12 December 2011)	Venue
<b>3<sup>rd</sup> Software Engineering Postgraduates Workshop Co-Located Workshop in the 5<sup>th</sup> Malaysian Software Engineering Conference</b>	Time: 9-5pm Date: 12 December 2011 Venue: The Puteri Pacific, Johor Bahru, Malaysia
<b>International Workshop on CMMI based Software Process Improvement in Small and Medium Sized Enterprises (SPISME 2011) 12 December 2011 - Universiti Teknologi Malaysia, Johor Bahru, Malaysia</b>	Time: 8-12 PM Date: 12 December 2011 Venue: The Puteri Pacific, Johor Bahru, Malaysia
Conference Day (13 & 14 December 2011)	Venue
<b>2011 5th Malaysian Conference in Software Engineering (MySEC) - Day 1</b>	Time: 9-5pm Date: 13 December 2011 Venue: The Puteri Pacific, Johor Bahru, Malaysia
<b>2011 5th Malaysian Conference in Software Engineering (MySEC) -Day 2</b>	Time: 8-12 PM Date: 14 December 2011 Venue: The Puteri Pacific, Johor Bahru, Malaysia

# International Workshop on CMMI based Software Process Improvement in Small and Medium Sized Enterprises (SPISME 2011)

**Date: 12 December 2011**

**Venue: The Puteri Pacific, Johor Bahru, Malaysia**

## Program

<b>8:00 AM</b>	<b>9:00 AM</b>	<b>Registration &amp; Morning Coffee</b>	
<b>9:00 AM</b>	9:05 AM	Toni Anwar UTM Johor Bahru, Malaysia	Opening
<b>9:05 AM</b>	9:30 AM	Horst Lichter RWTH Aachen University, Germany	Software Processes in an Agile World
<b>9:30 AM</b>	9:55 AM	Chayakorn Piyabunditkul NECTEC Bangkok, Thailand	The NECTEC-CMMI ML3 Implementation Project
<b>9:55 AM</b>	10:20 AM	Mohd. Naz'ri Mahrin UTM Kuala Lumpur, Malaysia	SPI Initiative in Malaysia
<b>10:20 AM</b>	10:45 AM	Tachanun Kangwantrakool ISEM Bangkok, Thailand	Challenges and Pitfalls of CMMI Appraisals
<b>10:45 AM</b>	11:00 AM	Refreshments	
<b>11:00 AM</b>	11:20 AM	Fariha Motherudin, Wong Wai Tong	Evaluation of Code Quality Best Practices into Dashboard
<b>11:20 AM</b>	11:40 AM	Nor Izyani Daud, Rudhuwan Abu Bakar, Galoh Rashidah Haron	Improvement and Enhancement in Configuration Management Process Area within the Organization
<b>11:40 AM</b>	12:00 PM	Nasir Mehmood Minhas, Javed Iqbal	Software Process Improvement Practices – A Pakistani Perspective
<b>12:00 PM</b>	12:30 PM	All speakers	Panel and Summary
		Lunch	

**3<sup>rd</sup> Software Engineering Postgraduates Workshop**

# Co-Located Workshop in the 5<sup>th</sup> Malaysian Software Engineering Conference

Date: 12 December 2011

Venue: The Puteri Pacific, Johor Bahru, Malaysia

## Programme

TIME	AGENDA	
8.30 - 9.00 am	Registration	
9.00 - 9.15 am	Welcome Speech by MySEC 2011 Chair	
9.15 - 10.45 am	Tutorial For Writing Journals Papers Professor Dr. Pericles Locoupolos Loughborough University, UK	
10.45 - 11.00 am	Refreshment	
11.00 - 12.30 pm	Tutorial For Writing Research Proposal and Thesis Professor Dr. Abdullah Mohd. Zain Universiti Kebangsaan Malaysia	
12.30 - 2.15 pm	Lunch	
2.15 - 4.30 pm	Parallel Session 1 Session Chair: Assoc. Prof. Dr. Kamal Zuhairi Zamli (USM, Malaysia) Professor Pericles Loucopoulos (Loughborough University, UK) Professor Dr. Rosziati Binti Ibrahim (UTHM, Malaysia)	Parallel Session 2 Session Chair: Assoc. Prof. Dr. Rusli Abdullah (UPM, Malaysia) Professor Abdullah Mohd Zin (UKM, Malaysia) Professor Horst Lichter (Aachen, Germany)
4.30 - 4.45 pm	Refreshment	



**CONFERENCE PROGRAM (13 & 14 December 2011)**

<b>1st Day (13th December 2011)</b>	
<b>09.00 – 09.45 am</b>	Opening ceremony by UTM Vice Chancellor – <b>Prof Dato’ Ir. Dr. Zaini Ujang</b>
<b>09.45 – 10.45 am</b>	Keynote Speaker 1: <b>Prof Dato’ Dr. Aziz Deraman</b> , Vice Chancellor, University Malaysia Terengganu (UMT) <i>Software Certification: The Way Forward</i>
<b>10.45 - 11.00 am</b>	<b>Refreshment</b>
<b>11.00 – 1.00 pm</b>	<b>Parallel Session 1</b> 1A: Requirements Engineering 1B: Software Architecture & Design 1C: Software Architecture & Design
<b>01.00 - 02.15pm</b>	Lunch
<b>02.15 – 03.15 pm</b>	Keynote Speaker 2: <b>Haji Safiee Bin Haji Mohammad</b> , President of HeiTech Padu Berhad, Malaysia. <i>Creating Sustainable Software: HeiTech Padu’s Experience</i>
<b>03.15 – 05.15 pm</b>	<b>Parallel Session 2</b> 2A: Software Processes and Workflows 2B: Software Processes and Workflows 2C: Software Quality and Testing
<b>05.15 – 05.30 pm</b>	<b>Refreshment</b>
<b>08.00 – 10.30 pm</b>	Dinner

<b>2nd Day (14th December 2011)</b>	
<b>09.00 - 10.00 am</b>	Keynote Speaker 3: <b>Professor Pericles Locoupolos</b> , Management Science and Information Systems, Loughborough University, UK <i>Requirements Engineering in a Changing Landscape</i>
<b>10.00 - 10.30 am</b>	<b>Refreshment</b>
<b>10.30 – 12.50 pm</b>	<b>Parallel Session 3:</b> 3A: Software Quality and Testing 3B: Domain-Specific Software Engineering, Formal Methods, Software Reuse, Re-Engineering, Software Quality And Testing 3C: Formal Methods, Knowledge Based, Domain-Specific Software Engineering
<b>12.50 – 02.00 pm</b>	Lunch
<b>02.00 – 03.20 pm</b>	<b>Parallel Session 4:</b> 4A: Intelligent Software Engineering And Software Components 4B: Software Components, Agile Methodologies And Software Engineering In Practice 4C: Software Components, Agile Methodologies And Knowledge Base Software Engineering
<b>04.00 – 05.30 pm</b>	<b>Refreshment</b>
<b>3rd Day (15th December 2011)</b>	
<b>9.00 - 5.00 pm</b>	<b>Excursions (Interested participant could book a seat at MySec2011 Information Counter)</b>

## SCHEDULE DETAILS FOR PARALLEL SESSIONS

<b>SESSION 1A</b>	<b>REQUIREMENT ENGINEERING</b>
<b>Date</b>	: 13 December 2011 (Tuesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 11am – 1pm
<b>Chairperson</b>	: AP Dr. Rusli Abdullah
<b>Assistant</b>	: Noraini Ibrahim
<b>11.00am – 11.15am</b>	101- REDUCE FAULT DENSITY FOR TOP 3 REQUIREMENT FAULTS <i>Ros-Liza Abdul Rahman (MIMOS)</i>
<b>11.15am – 11.30am</b>	137- THE ADOPTION OF UML-MARTE PROFILE FOR WEAKLY HARD REAL-TIME REQUIREMENTS <i>Habibah Ismail, Dayang N. A. Jawawi (UTM)</i>
<b>11.30am – 11.45am</b>	163- CONTROLLED VOCABULARY BASED SOFTWARE REQUIREMENTS CLASSIFICATION <i>Nasir Mehmood Minhas, Shahla Majeed, Zia ul Qayyum, Muhammad Aasem (UIIT PMAS-Arid Agriculture University, Rawalpindi, Pakistan)</i>
<b>11.45am – 12.00pm</b>	208- REQUIREMENT ENGINEERING PRACTICE RESEARCH FRAMEWORK FOR THE PUBLIC SERVICE ORGANISATION <i>Azlena Haron, Shamsul Sahibuddin, Nor Hawaniah Zakaria (UTM), Mazlan Harun (INTAN)</i>
<b>12.00pm – 12.15pm</b>	218- PAIR ANALYSIS OF REQUIREMENTS IN SOFTWARE ENGINEERING EDUCATION <i>Kabas Albakry (Information Technology Program, AIS ST HELENS, Auckland, New Zealand), Massila Kamalrudin (UTEM)</i>
<b>12.15pm – 12.30pm</b>	114- USING ACTIVITY THEORY IN ANALYZING REQUIREMENTS FOR MOBILE PHONE APPLICATION <i>Kamalia Azma Kamaruddin, Nor Shahida Mohamad Yusop, Muhamad Azim Muhamad Ali (UITM, Shah Alam)</i>
<b>12.30pm – 12.45pm</b>	146- DESIGNING MULTIPLE TYPES OF SPATIAL AND NON SPATIAL DATABASES INTEGRATION MODEL USING FORMAL SPECIFICATION APPROACH <i>Mustafa Man, Mohammad Zaidi Zakaria (UTM), Julaily Aida Jusoh (UNISZA), Mohd. Shafry Mohd. Rahim (UTM)</i>
<b>12.45pm – 1pm</b>	159- STUDY ON ACCEPTANCE OF CUSTOMISED SOFTWARE PROCESS IMPROVEMENT (SPI) MODEL FOR MALAYSIA'S SME <i>Suhaimi Ibrahim (UTM), Raja Zurina Raja Mohamed Ali (SIRIM Berhad)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 1B</b>	<b>SOFTWARE ARCHITECTURE AND DESIGN</b>
<b>Date</b>	: 13 December 2011 (Tuesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 11am – 1pm
<b>Chairperson</b>	: AP Dr. Wan Mohd. Nasir Wan Kadir
<b>Assistant</b>	: Shahliza Abd. Halim
<b>11.00am – 11.15am</b>	135- A SYSTEMATIC LITERATURE REVIEW OF INTEROPERABLE ARCHITECTURE FOR E-GOVERNMENT PORTALS <i>Khairul Anwar Sedek (UITM, Perlis), Shahida Sulaiman (UTM), Mohd Adib Omar (USM)</i>
<b>11.15am – 11.30am</b>	195- SOFTWARE ARCHITECTURE RELIABILITY PREDICTION MODELS: AN OVERVIEW <i>Furkh Zeshan, Radziah Mohamad (UTM)</i>
<b>11.30am – 11.45am</b>	104- COMPARISON STUDY BETWEEN TRADITIONAL AND OBJECT-ORIENTED APPROACHES TO DEVELOP ALL PROJECTS IN SOFTWARE ENGINEERING <i>Nabil Mohammed Ali Munassar, Dr. A. Govardhan (Jawaharlal Nehru Technological University Hyderabad, India)</i>
<b>11.45am – 12.00pm</b>	107- AN AGENT-BASED MODEL OF MUSCLE CONTRACTION PROCESS AS A BIO-ROBOTIC PROCESS <i>H.R. Khataee, T.N. Mohd Aris, M.N. Sulaiman (UPM)</i>
<b>12.00pm – 12.15pm</b>	117- EVALUATION OF UML MARTE, SOAML PROFILES FOR DISTRIBUTED EMBEDDED REAL-TIME SYSTEMS DEVELOPMENT <i>Muhammad Waqar Aziz, Radziah Mohamad, Dayang N. A. Jawawi (UTM)</i>
<b>12.15pm – 12.30pm</b>	123- WSMO-M : NFP-AWARE WEB SERVICE DISCOVERY FOR MOBILE COMPUTING <i>Nor Azizah Saadon, Radziah Mohamad (UTM)</i>
<b>12.30pm – 12.45pm</b>	129- MODEL TRANSFORMATION SPECIFICATION FOR AUTOMATED FORMAL VERIFICATION <i>Asmiza Abdul Sani (UM), Fiona A. C. Polack, Richard F. Paige (University of York, UK)</i>
<b>12.45pm – 1pm</b>	203- HYBRID SIMPLE ARTIFICIAL IMMUNE SYSTEM (SAIS) & PARTICLE SWARM OPTIMIZATION (PSO) FOR SPAM DETECTION <i>Saber Salehi, Ali Selamat (UTM)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 1C</b>	<b>SOFTWARE ARCHITECTURE AND DESIGN</b>
<b>Date</b>	: 13 December 2011 (Tuesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 11am – 1pm
<b>Chairperson</b>	: Dr. Mohammad Nazir Ahmad Sharif
<b>Assistant</b>	: Muhammad Firdaus Harun
<b>11.00am – 11.15am</b>	138- FROM UNI-DIRECTIONAL MODEL TRANSFORMATION TO INCREMENTAL MODEL SYNCHRONIZATION <i>Fatemeh Hassani, Kavan Sedighiani, Fereidoon Shams Aliee (Shahid Beheshti University GC, Iran), Alireza Angabini (University of Tehran, Iran)</i>
<b>11.15am – 11.30am</b>	142- ANALYZING MODEL CHECKING APPROACH FOR MULTI AGENT SYSTEM VERIFICATION <i>Najwa Abu Bakar, Ali Selamat (UTM)</i>
<b>11.30am – 11.45am</b>	170- ARCHITECTING A PLUG-IN BASED TSM CLIENT APPLICATION <i>Tanthawat Khemavast (TGGs, KMUTNB, Thailand), Dirk Muthorst, Andreas Kinderreich (KISTERS AG, Germany), Toni Anwar (UTM)</i>
<b>11.45am – 12.00pm</b>	173- FORWARD ENGINEERING THE OBJECT ORIENTED ANALYSIS AND DESIGN <i>Prabodha Tilakaratna, Jayantha Rajapakse (Monash University Sunway Campus, Malaysia)</i>
<b>12.00pm – 12.15pm</b>	180- IDENTIFYING REFACTORING THROUGH FORMAL MODEL BASED ON DATA FLOW GRAPH <i>Panita Meananeatra, Songsakdi Rongviriyapanish (Thammasat University, Thailand), Taweessup Apiwattanapong (National Electronics and Computer Technology Center, Thailand)</i>
<b>12.15pm – 12.30pm</b>	120- MIDDLEWARE FRAMEWORK FOR INTEGRATION OF HETEROGENEOUS HARDWARE AND SOFTWARE <i>Ahmad Izzuddin bin Abu Bakar , Rodziah Atan , Razali Yaakob (UPM)</i>
<b>12.30pm – 12.45pm</b>	219- ONTOLOGY-BASED KNOWLEDGE MODEL FOR VIRTUAL COMMUNITIES PROFILE <i>Zeti Darleena Eri (UTM, Shah Alam), Rusli Abdullah, Marzanah A. Jabar ,Masrah Azrifah Azmi Murad (UPM)</i>
<b>12.45pm – 1pm</b>	215- SOFTWARE ENGINEERING APPROACH TO ENTERPRISE-STRENGTH ONTOLOGY ENGINEERING <i>Muthukkaruppan Annamalai ,Marshima Mohd Rosli (UITM, Shah Alam)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 2A</b>	<b>SOFTWARE PROCESSES AND WORKFLOWS</b>
<b>Date</b>	: 13 December 2011 (Tuesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 3.15pm – 5.15pm
<b>Chairperson</b>	: AP Dr. Suhaimi Ibrahim
<b>Assistant</b>	: Najwa Abu Bakar
<b>3.15pm – 3.30pm</b>	110- INTEGRATION OF CULTURAL DIMENSIONS INTO SOFTWARE LOCALISATION TESTING OF ASSISTIVE TECHNOLOGY FOR DEAF CHILDREN <i>Tan Ping Ping, Chiu Po Chan, Hamizan Sharbini, Azlina Ahmadi Julaihi (UNIMAS)</i>
<b>3.30pm – 3.45pm</b>	118- SOFTWARE ENGINEERING TRACEABILITY METHOD FOR FOOD INGREDIENT TRACING <i>Nur Adila binti Azram, Rodziah binti Atan (UPM)</i>
<b>3.45pm – 4.00pm</b>	127- A COMPARATIVE SURVEY OF ASPECT-ORIENTED CODE GENERATION APPROACHES <i>Abid Mehmood, Dayang N.A. Jawawi (UTM)</i>
<b>4.00pm – 4.15pm</b>	128- A UNIFIED FRAMEWORK FOR SOFTWARE ENGINEERING PROCESS IMPROVEMENT – A TAXONOMY COMPARATIVE ANALYSIS <i>Aedah Abd Rahman (UNIKL), Shamsul Sahibuddin, Suhaimi Ibrahim (UTM)</i>
<b>4.15pm – 4.30pm</b>	149- USER-CENTERED TECHNIQUE FOR MANAGING AND TRACKING MODIFICATION REQUESTS IN PROTOTYPE-BASED WEB APPLICATIONS <i>Siti Nor Asikin Kamalzaman, Sharifah Mashita Syed-Mohamad (USM), Shahida Sulaiman (UTM)</i>
<b>4.30pm – 4.45pm</b>	160- AN APPLICATION TOOL TO SUPPORT THE IMPLEMENTATION OF INTEGRATED SOFTWARE PROCESS IMPROVEMENT FOR MALAYSIA'S SME <i>Raja Zurina Raja Mohamed Ali (SIRIM, Malaysia), Suhaimi Ibrahim (UTM)</i>
<b>4.45pm – 5.00pm</b>	155- POLICY-BASED APPROACH FOR DYNAMIC ARCHITECTURAL ADAPTATION: A CASE STUDY ON LOCATION-BASED SYSTEM <i>Abdehamid Abdelhadi Mansor (University of Khartoum, Sudan), Wan M.N. Wan Kadir, Hidayah Elias (UTM)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 2B</b>	<b>SOFTWARE PROCESSES AND WORKFLOWS</b>
<b>Date</b>	: 13 December 2011 (Tuesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 3.15pm – 5.15pm
<b>Chairperson</b>	: AP Dr. Shahida Sulaiman
<b>Assistant</b>	: Nor Azizah Sa'adon
<b>3.15pm – 3.30pm</b>	169- MODEL CHECKING AND VERIFICATION METHOD OF ENGINE CONTROL UNITS <i>Surapa Ratanaprutthakul (TGGS, KMUTNB, Thailand), Sebastian Grobosch (VEMAC GmbH &amp; Co.KG, Germany)</i>
<b>3.30pm – 3.45pm</b>	178- IMPACT OF CHANGING COMMUNICATION MEDIA ON CONFLICT RESOLUTION IN DISTRIBUTED SOFTWARE DEVELOPMENT PROJECTS <i>Huma Hayat Khan, Nauman Malik (National University of Modern Languages, Islamabad, Pakistan), Muhammad Usman, Naveed Ikram (International Islamic University, Islamabad, Pakistan)</i>
<b>3.45pm – 4.00pm</b>	181- SPIALS: A LIGHT-WEIGHT SOFTWARE PROCESS IMPROVEMENT SELF-ASSESSMENT TOOL <i>Chayakorn Piyabunditkul, Disorn Homchuenchom (TGGS, KMUTNB, Thailand), Horst Lichter (RWTH Aachen, Germany), Toni Anwar (UTM)</i>
<b>4.00pm – 4.15pm</b>	185- AN ANALYTICAL APPROACH FOR PROJECT MANAGERS IN EFFECTIVE DEFECT MANAGEMENT IN SOFTWARE PROCESS <i>T.R. Gopalakrishnan Nair, V. Suma, N. R. Shashi Kumar (Dayananda Sagar Institutions, India)</i>
<b>4.15pm – 4.30pm</b>	206- SOA-BASED BUSINESS PROCESS FOR SUPPLY CHAIN MANAGEMENT <i>Mohsen Mohammadi, Muriati Bt. Mukhtar (UKM)</i>
<b>4.30pm – 4.45pm</b>	133- CRM SOFTWARE IMPLEMENTATION FACTORS IN HOSPITAL SOFTWARE & PATIENT PERSPECTIVES <i>Hossein Monem (UTM), Ab Razak Che Hussin (UTM), Roxana Sharifian (SUMS, Iran), Habib Shaterzadeh (Tahlilgaran Fanavare Eteleate-e-Fars)</i>
<b>4.45pm – 5.00pm</b>	188- APPLYING PARTICLE SWARM OPTIMIZATION TO SOFTWARE PERFORMANCE PREDICTION: AN INTRODUCTION TO THE APPROACH <i>Adil .A. A. Saed, Wan M.N. Wan Kadir (UTM)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 2C</b>	<b>SOFTWARE QUALITY AND TESTING</b>
<b>Date</b>	: 13 December 2011 (Tuesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 3.15pm – 5.15pm
<b>Chairperson</b>	: Dr. Mohd Naz'ri Mahrin
<b>Assistant</b>	: Noraini Ibrahim
<b>3.15pm – 3.30pm</b>	105- RELIABILITY ANALYSIS FOR PILOT SURVEY IN INTEGRATED SURVEY MANAGEMENT SYSTEM <i>Raihana Reh, Masru Laili Mursidi, Nur Azlin Atikah Husin (TM R&amp;D)</i>
<b>3.30pm – 3.45pm</b>	108- A CLICKSTREAM-BASED WEB PAGE SIGNIFICANCE RANKING METRIC FOR WEB CRAWLERS <i>F. Ahmadi-Abkenari, Ali Selamat (UTM)</i>
<b>3.45pm – 4.00pm</b>	119- A MODEL OF KNOWLEDGE MANAGEMENT SYSTEM IN MANAGING KNOWLEDGE OF SOFTWARE TESTING ENVIRONMENT <i>Rusli Abdullah (UPM), Zeti Darleena Erib, Amir Mohamed Talib (UiTM, Shah Alam)</i>
<b>4.00pm – 4.15pm</b>	124- AN INTERMEDIATE METAMODEL FOR FAILURE-BASED BEHAVIOR OF PERFORMANCE AND RELIABILITY <i>M.A. Isa, Dayang N.A. Jawawi (UTM)</i>
<b>4.15pm – 4.30pm</b>	125- ADOPTING SIX SIGMA APPROACH IN PREDICTING FUNCTIONAL DEFECTS FOR SYSTEM TESTING <i>Muhammad Dhiauddin Mohamed Suffian, Suhaimi Ibrahim (UTM)</i>
<b>4.30pm – 4.45pm</b>	148- IMPROVING LEARNABILITY AND UNDERSTANDABILITY OF A WEB APPLICATION USING AN ACTION-BASED TECHNIQUE <i>Nurul Afiqah Shamsuddin, Sharifah Mashita Syed-Mohamad, Kamal Zuhairi Zamli (USM), Shahida Sulaiman (UTM)</i>
<b>4.45pm – 5.00pm</b>	102- AGILE TESTING WITH SELENIUM <i>Rosnisa Abdull Razak, Fairul Rizal Fahrurazi (MIMOS)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**



<b>SESSION 3A</b>	<b>SOFTWARE QUALITY AND TESTING</b>
<b>Date</b>	: 14 December 2011 (Wednesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 10.30am – 12.50pm
<b>Chairperson</b>	: AP Dr. Toni Anwar
<b>Assistant</b>	: Mohd Zulkifli Zaki
<b>10.30am – 10.45am</b>	156- EFFICIENT PREDICTION OF SOFTWARE FAULT PRONENESS MODULES USING SUPPORT VECTOR MACHINES AND PROBABILISTIC NEURAL NETWORKS <i>Hamdi A. Al-Jamimi, Lahouari Ghouti (King Fahd University of Petroleum and Minerals, Saudi Arabia )</i>
<b>10.45am – 11.00am</b>	164- SOFTWARE COMPLEXITY LEVEL DETERMINATION USING SOFTWARE EFFORT ESTIMATION USE CASE POINTS METRICS <i>Yaeghoob yavari , Mojtaba Karami (Hamedan Branch Islamic Azad University), Mohsen Afsharchi (Zanjan University, Iran)</i>
<b>11.00am – 11.15am</b>	189- INCREASING TEST COVERAGE USING HUMAN-BASED APPROACH OF FAULT INJECTION TESTING <i>Nor Shahida Mohamad Yusop, Wan Faezah Abbas, Haryani Haron, Kamalia Azma Kamaruddin (UITM, Shah Alam)</i>
<b>11.15am – 11.30am</b>	192- PRIORITIZING INTERACTION TEST SUITE FOR T-WAY TESTING <i>Saidatul K. Said, Rozmie R. Othman, Kamal Z. Zamli (USM)</i>
<b>11.30am – 12.00pm</b>	193- AN APPROACH TO ESTIMATE THE SAVINGS FROM NEGOTIATION BASED ON COST-BENEFIT ANALYSIS MODEL <i>Sabrina Ahmad, Azah Kamilah Muda, Noor Azilah Muda, Zahriah Othman (UTEM)</i>
<b>12.00pm – 12.15pm</b>	205- FEATURE SUBSET SELECTION METHOD FOR DYNAMIC SOFTWARE QUALITY ASSESSMENT <i>Siti Sakira Kamaruddin (UUM), Aziz Deraman (UMT), Jamaiah Yahaya (UKM), Ruzita Ahmad (UKM)</i>
<b>12.15pm – 12.30pm</b>	176- PERSONALISATION AS A TOOL FOR IMPROVING USABILITY OF A HIGHER EDUCATIONAL WEBSITE <i>Faduma Ali Nuradin, Thiam Kian Chiew (UM)</i>
<b>12.30pm – 12.45pm</b>	174- SOFTWARE ENGINEERING CURRICULUM: A SYSTEMATIC MAPPING STUDY <i>Muhammad Manan Qadir, Muhammad Usman (International Islamic University Islamabad, Pakistan)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 3B</b>	<b>DOMAIN-SPECIFIC SOFTWARE ENGINEERING, FORMAL METHODS, SOFTWARE REUSE, RE-ENGINEERING, SOFTWARE QUALITY AND TESTING</b>
<b>Date</b>	: 14 December 2011 (Wednesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 10.30am – 12.50pm
<b>Chairperson</b>	: Dr. Imran Ghani
<b>Assistant</b>	: Najwa Abu Bakar
<b>10.30am – 10.45am</b>	130- A COMPARISON OF SOFTWARE REUSE IN SOFTWARE DEVELOPMENT COMMUNITIES <i>Meena Jha (The University of New South Wales, Australia), Liam O'Brien (Australian National University, Australia)</i>
<b>10.45am – 11.00am</b>	204- EXPERT-BASED DECISION SUPPORT FRAMEWORK FOR SOFTWARE REENGINEERING <i>Rahma A. Kamaludeen, Yu-N Cheah (USM), Shahida Sulaiman (UTM)</i>
<b>11.00am – 11.15am</b>	207- USABILITY IN SOFTWARE DEVELOPMENT: FRAMEWORKS COMPARISON BETWEEN IKNOWU AND USER BEHAVIOR ANALYSIS FRAMEWORK (UBAF) <i>Norliza Abd Razak, Masitah Ghazali (UTM)</i>
<b>11.15am – 11.30am</b>	214- INVESTIGATING PHYSICAL INTERACTION COMPLEXITIES IN EMBEDDED SYSTEMS <i>Mahmood Ashraf, Masitah Ghazali (UTM)</i>
<b>11.30am – 12.00pm</b>	161- MULTIFEATURE BASED RETRIEVAL OF 2D AND COLOR DOPPLER ECHOCARDIOGRAPHIC IMAGES FOR CLINICAL DECISION SUPPORT <i>S. Nandagopalan, T S B Sudarshan (Amrita School of Engineering, India), B. S. Adiga (Tata Consultancy Services, India), Dhanalakshmi C (Sri Jayadeva Institute of Cardiovascular Sciences and Research, India)</i>
<b>12.00pm – 12.15pm</b>	113- GAME-BASED APPROACH AND ITS FEASIBILITY TO SUPPORT THE LEARNING OF OBJECT-ORIENTED CONCEPTS AND PROGRAMMING <i>Aimi Elliyana Rais, Sharifah Mashita Syed-Mohamad (USM), Shahida Sulaiman (UTM)</i>
<b>12.15pm – 12.30pm</b>	165- POWER CABLE INSPECTIONS USING MATLAB GRAPHICAL USER INTERFACE AIDED BY THERMAL IMAGING <i>F. Selim Kafrelshiekh (University, Egypt), I. Bedir Tanta (University, Egypt), H. El desuoki (Arab Academy for Science and Technology, Egypt)</i>
<b>12.30pm – 12.45pm</b>	177- CRITICAL COMPONENT ANALYZER - A NOVEL TEST PRIORITIZATION FRAMEWORK FOR COMPONENT BASED REAL TIME SYSTEMS <i>D.Jeya Mala (Thiagarajar College of Engineering, India), M. Ramalakshmi Praba (KLN College of Information Technology, India )</i>

<b>SESSION 3C</b>	<b>FORMAL METHODS, KNOWLEDGE BASED, DOMAIN-SPECIFIC SOFTWARE ENGINEERING</b>
<b>Date</b>	: 14 December 2011 (Wednesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 10.30am – 12.50pm
<b>Chairperson</b>	: Dr. Suriyati Chuprat
<b>Assistant</b>	: Ismaila Idris
<b>10.30am – 10.45am</b>	126- CLUSTERING SOFTWARE SYSTEMS TO IDENTIFY SUBSYSTEM STRUCTURES USING KNOWLEDGEBASE <i>Md. Nasim Adnan, Md. Rashedul Islam, Dr. Sazzad Hossain (University of Liberal Arts Bangladesh, Bangladesh)</i>
<b>10.45am – 11.00am</b>	131- A COMPUTATIONAL SYSTEM APPROACH TO DEVELOP STUDENT’S BASED EMOTION SYSTEM: AN ALTERNATIVE FEEDBACK TOOL FOR LECTURERS TO ENHANCE TEACHING AND LEARNING <i>Deshinta Arrova Dewi, Premylla Jeremiah, Zaidatul Haslinda Bt Abdullah Sani (INTI International University, Malaysia)</i>
<b>11.00am – 11.15am</b>	132- GAMIFICATION TOWARDS SUSTAINABLE MOBILE APPLICATION <i>Foong Li Law, Chun Kiat Gan (KDU University College), Zarinah Mohd Kasirun (UM)</i>
<b>11.15am – 11.30am</b>	136- A MODEL FOR KNOWLEDGE PORTAL TO SUPPORT COMMUNITIES OF PRACTICE <i>Aisyah Ismail (USM), Shahida Sulaiman (UTM)</i>
<b>11.30am – 12.00pm</b>	140- AN HYBRID MODEL THROUGH THE FUSION OF SENSITIVITY BASED LINEAR LEARNING METHOD AND TYPE-2 FUZZY LOGIC SYSTEMS FOR MODELING PVT PROPERTIES OF CRUDE OIL SYSTEMS <i>Sunday Olusanya Olatunji, Ali Selamat (UTM), Abdul Azeez Abdul Raheem (King Fahd University of Petroleum and Mineral, Kingdom of Saudi Arabia)</i>
<b>12.00pm – 12.15pm</b>	166- DATA FORMAT NOTATIONS FOR TECHNICAL COMMUNICATION AMONG HARDWARE AND SOFTWARE ENGINEERS <i>Ali MohammadAliZadeh Ghazijahani, Rodziah Atan (UPM)</i>
<b>12.15pm – 12.30pm</b>	163- GRAPH-BASED SIMULATED ANNEALING AND SUPPORT VECTOR MACHINE IN MALWARE DETECTION <i>Abubakr Sirageldin, Ali Selamat, Roliana Ibrahim (UTM)</i>
<b>12.30pm – 12.45pm</b>	-

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 4A</b>	<b>INTELLIGENT SOFTWARE ENGINEERING AND SOFTWARE COMPONENTS</b>
<b>Date</b>	: 14 December 2011 (Wednesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 2.00pm – 4.00pm
<b>Chairperson</b>	: Dr. Radziah Mohamad
<b>Assistant</b>	: Nor Azizah Saadon
<b>2.00pm – 2.15pm</b>	103- XMCCTREE: AN ALGORITHM FOR PRODUCING MCCTREE IN INCOMPACT STRUCTURE <i>Ummu Sulaim Sazaly, Mohd Hasan Selamat, Salmi Baharom, Marzanah Ab. Jabar (UPM)</i>
<b>2.15pm – 2.30pm</b>	111- NEGATIVE SELECTION ALGORITHM IN ARTIFICIAL IMMUNE SYSTEM FOR SPAM DETECTION <i>Ismaila Idris, Ali Selamat (UTM)</i>
<b>2.30pm – 2.45pm</b>	115- SELF-ADAPTIVE AND MULTI-AGENT REINFORCEMENT LEARNING IN ROUTE GUIDANCE SYSTEM <i>Mortaza Zolfpour-Arokhlo, Ali Selamat, Siti Zaiton Mohd Hashim (UTM)</i>
<b>2.45pm – 3.00pm</b>	122- CONTRACTOR SELECTION USING FUZZY COMPARISON JUDGEMENT <i>Ros Haslinda Alias, Noor Maizura Mohamad Noor, Md Yazid Mohd Saman, Mohd Lazim Abdullah (UMT), Ali Selamat (UTM)</i>
<b>3.00pm – 3.15pm</b>	154- REACTIVE POWER LOAD TRACING VIA BLENDED CROSSOVER CONTINUOUS ANT COLONY OPTIMIZATION <i>Z. Hamid, I. Musirin, M. M. Othman, M. N. A. Rahim (UITM, Shah Alam)</i>
<b>3.15pm – 3.30pm</b>	196- CALENDAR AGENT WITH COMMONSENSE REASONING <i>Patricia Anthony, Ooi Yu Wooi (UMS)</i>
<b>3.30pm – 4.00pm</b>	209- OBJECT-ORIENTED PROGRAMMING SEMANTICS EDUCATION BASED ON INTELLIGENT AGENTS <i>Teh Noranis Mohd Aris (UPM), Shahrin Azuan Nazeer (TM R&amp;D)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 4B</b>	<b>SOFTWARE COMPONENTS, AGILE METHODOLOGIES AND SOFTWARE ENGINEERING IN PRACTICE</b>
<b>Date</b>	: 14 December 2011 (Wednesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 2pm – 4pm
<b>Chairperson</b>	: Dr. Dayang Norhayati
<b>Assistant</b>	: Mohd Adham Isa
<b>2.00pm – 2.15pm</b>	109- USING JIRA AND REDMINE IN REQUIREMENT DEVELOPMENT FOR AGILE METHODOLOGY <i>Hasliza Md Sarkan, Tengku Puteri Suhilah Ahmad, Azuraini Abu Bakar (MIMOS Berhad)</i>
<b>2.15pm – 2.30pm</b>	187- CONTENT ANALYSIS ON AGILE VALUES: A PERCEPTION FROM SOFTWARE PRACTITIONERS <i>Tamer Madi, Zulkhairi Dahalin, Fauziah Baharom (UUM)</i>
<b>2.30pm – 2.45pm</b>	200- SERVICE DIFFERENTIATION FOR COLLABORATIVE CACHING QUERY PROCESS IN MOBILE DATABASE <i>Mohamed Ahmed Elfaki Hamidah Ibrahim, Ali Mamat, Mohamed Othman (UPM)</i>
<b>2.45pm – 3.00pm</b>	201- AN ENHANCED GENERIC PIPELINE MODEL FOR CODE CLONE DETECTION <i>Al-Fahim Mubarak Ali, Sharifah Mashita Syed-Mohamad (USM), Shahida Sulaiman (UPM)</i>
<b>3.00pm – 3.15pm</b>	121- SECURITY BACKLOG IN SCRUM SECURITY PRACTICES <i>Zulkarnain Azham, Imran Ghani, Norafida Ithnin (UTM)</i>
<b>3.15pm – 3.30pm</b>	134- A FILE-BASED IMPLEMENTATION OF XML ENCRYPTION <i>Sea Chong Seak, Ng Kang Siong (MIMOS Berhad)</i>
<b>3.30pm – 4.00pm</b>	211- DEVELOPMENT OF NETWORK MANAGEMENT SYSTEM FOR NETWORK SERVICES PROVIDER <i>Chakrit Wannachakrit (TGSS, KMUTNB, Thailand), Toni Anwar (UTM)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

<b>SESSION 4C</b>	<b>SOFTWARE COMPONENTS, AGILE METHODOLOGIES AND KNOWLEDGE BASE SOFTWARE ENGINEERING</b>
<b>Date</b>	: 14 December 2011 (Wednesday)
<b>Venue</b>	: T.B.A
<b>Time</b>	: 2pm – 4pm
<b>Chairperson</b>	: Dr. Masitah Ghazali
<b>Assistant</b>	: Muhammad Waqar Aziz
<b>2.00pm – 2.15pm</b>	141- SECURE CODING IN SOFTWARE DEVELOPMENT <i>Nor Harisah Zainuddin @ Zenah, Normaziah Abd Aziz (IIUM)</i>
<b>2.15pm – 2.30pm</b>	147- ASSESSMENT OF KNOWLEDGE ABILITY TOWARDS DECISION-MAKING IN INFORMATION SYSTEMS FROM MANAGERS PERSPECTIVE <i>Muhammad Nadeem Faisal, Waqar Ahmad, Qaisar Abbas (National Textile University, Pakistan), Muhammad Shahbaz, Sohail Tariq (GC University Faisalabad)</i>
<b>2.30pm – 2.45pm</b>	150- KNOWLEDGE SHARING MANAGEMENT IN OFFSHORE SOFTWARE DEVELOPMENT OUTSOURCING RELATIONSHIPS FROM VENDORS' PERSPECTIVE: A SYSTEMATIC LITERATURE REVIEW PROTOCOL <i>Asad Ullah Alam, Siffat Ullah Khan (University of Malakand Pakistan)</i>
<b>2.45pm – 3.00pm</b>	151- INTERCULTURAL CHALLENGES IN OFFSHORE SOFTWARE DEVELOPMENT OUTSOURCING RELATIONSHIPS: A SYSTEMATIC LITERATURE REVIEW PROTOCOL <i>Muhammad Ilyas Azeem, Siffat Ullah Khan (University of Malakand Pakistan)</i>
<b>3.00pm – 3.15pm</b>	167- INCORPORATING USER'S BACKGROUND KNOWLEDGE INTO RECOMMENDER SYSTEM FOR DIGITAL LIBRARIES <i>Bahram Amini, Roliana Ibrahim, Mohd Shahizan Othman (UTM)</i>
<b>3.15pm – 3.30pm</b>	172- MOBILE LANGUAGE TRANSLATOR <i>Sim Liew Fong, Abdelrahman Osman Elfaki Md Gapar bin Md Johar, Kevin Loo Teow Aik (Management and Science University)</i>
<b>3.30pm – 3.45pm</b>	171- RIOT: RAPID, ITERATIVE AND OFF-THE-SHELF TOOL-EVALUATION <i>Thanabbordee Thanarukvudhikorn (TGGS, KMUTNB, Thailand), Andreas Ganser, Horst Lichter (RWTH Aachen, Germany), Toni Anwar (UTM)</i>
<b>3.45pm – 4.00pm</b>	198- EMPIRICAL APPROACH IN ONTOLOGY ENGINEERING: AN ASSESSMENT ON NOVICE MODELERS <i>Namiah Abu Osman, Sin-Ban Ho, Su-Cheng Haw (MMU)</i>

**\*\* Each presenter will be given 10 minutes presentations and 5 minutes Q&A**

