# Program for 2014 IEEE 2nd International Symposium on Telecommunication Technologies

## Monday, November 24

<table>
<thead>
<tr>
<th>Time</th>
<th>Ballroom 1</th>
<th>Ballroom 2</th>
<th>Kenchana 2</th>
<th>Kenchana 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30 AM</td>
<td>R1: Registration</td>
<td>T1 - 1: Tutorial 1: Mobile Communication Evolution from LTE Advanced Towards 5G</td>
<td>T2 - 1: Tutorial 2: Application of InSAR for Earth Surface Deformation Disaster Analysis</td>
<td>T3 - 1: Tutorial 3: Power Efficiency in Broadband Communication Systems</td>
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<td>09:00 AM</td>
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<td>T1 - 2: Tutorial 1: Mobile Communication Evolution from LTE Advanced Towards 5G</td>
<td>T2 - 2: Tutorial 2: Application of InSAR for Earth Surface Deformation Disaster Analysis</td>
<td>T3 - 2: Tutorial 3: Power Efficiency in Broadband Communication Systems</td>
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<tr>
<td>10:30 AM</td>
<td>BR1: Tea Break</td>
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<tr>
<td>11:00 AM</td>
<td>T1 - 2: Tutorial 1: Mobile Communication Evolution from LTE Advanced Towards 5G</td>
<td>T2 - 2: Tutorial 2: Application of InSAR for Earth Surface Deformation Disaster Analysis</td>
<td>T3 - 2: Tutorial 3: Power Efficiency in Broadband Communication Systems</td>
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<tr>
<td>12:30 PM</td>
<td>LD1: Lunch</td>
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<tr>
<td>02:00 PM</td>
<td>T4 - 1: Tutorial 4: Antennas for Small MIMO Terminals</td>
<td>T5 - 1: Tutorial 5: Opportunities, Challenges and Future Directions in TV White Space</td>
<td>T6 - 1: Tutorial 6: MikroTik: Wireless Network Application</td>
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<tr>
<td>03:30 PM</td>
<td>BR2: Tea Break</td>
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<tr>
<td>04:00 PM</td>
<td>T4 - 2: Tutorial 4: Antennas for Small MIMO Terminals</td>
<td>T5 - 2: Tutorial 5: Opportunities, Challenges and Future Directions in TV White Space</td>
<td>T6 - 2: Tutorial 6: MikroTik: Wireless Network Application</td>
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<td>05:30 PM</td>
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<td>D1-E: End of Day 1</td>
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## Tuesday, November 25

<table>
<thead>
<tr>
<th>Time</th>
<th>Ballroom 1</th>
<th>Ballroom 2</th>
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<tbody>
<tr>
<td>07:30 AM</td>
<td>D2-R: Registration</td>
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<tr>
<td>08:30 AM</td>
<td>S1-1: Session 1-1: LTE/LTE-A</td>
<td>Session 1-2: Session 1-2: Antenna System &amp; Design I</td>
<td>S1-3: Session 1 - 3 : Ad Hoc and Sensor Networking</td>
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<tr>
<td>10:00 AM</td>
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<tr>
<td>10:15 AM</td>
<td>OP-1: Opening Ceremony - Welcoming Remarks</td>
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<tr>
<td>10:30 AM</td>
<td>OC2: Opening Ceremony - Welcoming Remarks</td>
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<tr>
<td>11:00 AM</td>
<td>KN-1: Keynote Address 1: Development of Synthetic Aperture Radar onboard UAV and Microsatellite</td>
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<tr>
<td>11:45 AM</td>
<td>KN-2: Keynote Address 2: 5G Evolution and Candidate</td>
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<td>Time</td>
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<tr>
<td>12:30</td>
<td>LD2: Lunch</td>
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<tr>
<td>02:00</td>
<td>IN-1: [Invited Talk]- GIRN: Emergency Communication Infrastructure</td>
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<tr>
<td>02:30</td>
<td>IN-2: [Invited Talk] - Emergency Communication Infra in Department of Irrigation and Drainage Malaysia</td>
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<tr>
<td>03:00</td>
<td>S2-3: Special Track 1: Emergency Communications for Disaster Management 1</td>
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<tr>
<td>03:45</td>
<td>BR4: Tea Break</td>
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<tr>
<td>04:00</td>
<td>IN-3: [Invited Talk] Application of high-capacity E-band wireless links as disaster countermeasures</td>
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<tr>
<td>04:30</td>
<td>S3-3: Session 3-3: Special Track on Disaster Management 2</td>
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<tr>
<td>08:00</td>
<td>Dinner: Conference Dinner</td>
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<tr>
<td>10:00</td>
<td>D2-E: End of Day 2</td>
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**Monday, November 24**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
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<tbody>
<tr>
<td>08:00</td>
<td>D3-R: Registration</td>
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<tr>
<td>08:30</td>
<td>S4-3: Session 4-3: Adhoc and Wireless Sensor Networking 2</td>
</tr>
<tr>
<td>08:30</td>
<td>S4-2: Session 4-2 (Optical Network and System)</td>
</tr>
<tr>
<td>10:00</td>
<td>BR5: Tea Break</td>
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<tr>
<td>10:15</td>
<td>KN3: Keynote Address 3: Geospatial Information for Emergency Communications in Disaster Management</td>
</tr>
<tr>
<td>11:00</td>
<td>KN4: Keynote Address 4: Smartgrid Communications</td>
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<tr>
<td>11:45</td>
<td>IP-1: Industry Forum: Internet of Things</td>
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<tr>
<td>12:45</td>
<td>LD3: Lunch</td>
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<tr>
<td>02:00</td>
<td>S5-3: Special Track 2: Smart Grid and Utility Communication</td>
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<tr>
<td>03:30</td>
<td>BR6: Tea Break</td>
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<tr>
<td>04:00</td>
<td>D3-E: ISTT2014 Conference End</td>
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**Wednesday, November 26**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session/Activity</th>
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<tbody>
<tr>
<td>08:00</td>
<td>D3-R: Registration</td>
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<tr>
<td>08:30</td>
<td>S4-3: Session 4-3: Adhoc and Wireless Sensor Networking 2</td>
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<tr>
<td>08:30</td>
<td>S4-2: Session 4-2 (Optical Network and System)</td>
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<tr>
<td>10:00</td>
<td>BR5: Tea Break</td>
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<tr>
<td>10:15</td>
<td>KN3: Keynote Address 3: Geospatial Information for Emergency Communications in Disaster Management</td>
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<tr>
<td>11:00</td>
<td>KN4: Keynote Address 4: Smartgrid Communications</td>
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<td>LD3: Lunch</td>
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<td>02:00</td>
<td>S5-3: Special Track 2: Smart Grid and Utility Communication</td>
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<tr>
<td>03:30</td>
<td>BR6: Tea Break</td>
</tr>
<tr>
<td>04:00</td>
<td>D3-E: ISTT2014 Conference End</td>
</tr>
</tbody>
</table>
8:30 AM - 9:00 AM

R1: Registration

Registration

9:00 AM - 10:30 AM

T1 - 1: Tutorial 1: Mobile Communication Evolution from LTE Advanced Towards 5G

Prof. Tharek Abd Rahman (Universiti Teknologi Malaysia)

Room: Ballroom 2

T2 - 1: Tutorial 2: Application of InSAR for Earth Surface Deformation Disaster Analysis

Dr. Luhur Bayuaji, Universiti Malaysia Pahang
Room: Kenchana 2

T3 - 1: Tutorial 3: Power Efficiency in Broadband Communication Systems

Dr. Pooria Varahram, Universiti Putra Malaysia

Room: Kenchana 3
Chair: Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

10:30 AM - 11:00 AM

BR1: Tea Break

11:00 AM - 12:30 PM

T1 - 2: Tutorial 1: Mobile Communication Evolution from LTE Advanced Towards 5G

Continue
Prof. Tharek Abd Rahman, Universiti Teknologi Malaysia

Room: Ballroom 2

T2 - 2: Tutorial 2: Application of InSAR for Earth Surface Deformation Disaster Analysis

Continue
Dr. Luhur Bayuaji, Universiti Pahang Malaysia
Room: Kenchana 2

T3 - 2: Tutorial 3: Power Efficiency in Broadband Communication Systems

Dr. Pooria Varahram, Universiti Putra Malaysia
Room: Kenchana 3

12:30 PM - 2:00 PM

LD1: Lunch

Lunch

2:00 PM - 3:30 PM
T4 - 1: Tutorial 4: Antennas for Small MIMO Terminals

Dr. Azremi Abdullah Al-Hadi, Universiti Malaysia Perlis
Room: Ballroom 2

T5 - 1: Tutorial 5: Opportunities, Challenges and Future Directions in TV White Space

Room: Kenchana 2

T6 - 1: Tutorial 6: MikroTik: Wireless Network Application

Dr. Mohd Faizal Jamlos, Universiti Malaysia Perlis
Room: Kenchana 3
Chair: Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

3:30 PM - 4:00 PM
BR2: Tea Break

4:00 PM - 5:30 PM
T4 - 2: Tutorial 4: Antennas for Small MIMO Terminals

Continue
Dr. Azremi Abdullah Al-Hadi, Universiti Malaysia Perlis
Room: Ballroom 2

T5 - 2: Tutorial 5: Opportunities, Challenges and Future Directions in TV White Space

Dr. Rosdiadee Nordin, Universiti Kebangsaan Malaysia
Room: Kenchana 2

T6 - 2: Tutorial 6: MikroTik: Wireless Network Application

Dr. Mohd Faizal Jamlos, Universiti Malaysia Perlis
Room: Kenchana 3

5:30 PM - 6:00 PM
D1-E: End of Day 1

Tuesday, November 25

7:30 AM - 8:30 AM
D2-R: Registration
Registration

8:30 AM - 10:00 AM
S1-1: Session 1-1: LTE/LTE-A
Room: Ballroom 2
Chair: Sieh Kiong Tiong (UNITEN, Malaysia)

**Optimization of Hybrid Renewable Energy Power System for Urban LTE Base Station Deployment in Malaysia**
Mohammed Alsharif, Rosdiadee Nordin and Mahamod Ismail (Universiti Kebangsaan Malaysia, Malaysia)

**Investigation of Rate-Loss Due to Limited Feedback in LTE-Advanced Distributed Antenna Systems**
Mehran Behjati (National University of Malaysia (UKM), Malaysia); Rosdiadee Nordin and Mahamod Ismail (Universiti Kebangsaan Malaysia, Malaysia)

**Self-organizing Joint Sensing and Power Allocation (SJSPA) Scheme to Coordinate Cross-Tier Interference for LTE-A Heterogeneous Networks**
Mohammad Kamrul Hasan and Ahmad Fadzil Ismail (International Islamic University Malaysia, Malaysia); Aisha-Hassan Abdulla (International Islamic University Malaysia, Malaysia); Shaila Islam, Khairayu Badron and Khaizuran Abdullah (International Islamic University Malaysia, Malaysia)

**A Channel Quality Indicator (CQI) Prediction Scheme Using Feed Forward Neural Network (FF-NN) technique for MU-MIMO LTE System**
Muntadher Qasim Abdulhasan (Universiti Putra Malaysia, Malaysia); Mustafa Ismael Salman (UPM, Malaysia); Chee Kyun Ng, Nor K. Noordin, Shaiful Jahari Hashim and Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

**Low complexity MIMO Interleaved SC-FDMA receiver using MRC with iterative detection**
Takamasa Takahashi and Yasunori Iwanami (Nagoya Institute of Technology, Japan)

**S1-3: Session 1 - 3 : Ad Hoc and Sensor Networking**

Session 1 - 3
Room: Kenchana 3
Chair: Norazizah Mohd Aripin (Dept. of Electronics and Communication Engineerin, UNITEN, Malaysia)

**A Study on Relationship, Effects and Interactions Between Power Level and Received Signal Strength of 2.45 GHz Active Integrated Radio Frequency Identification System for Real Time Monitoring utilizing Wireless Sensor Network Platform**
Farhana Ahmad Poad (Universiti Tun Hussein Onn Malaysia & UTM, Malaysia); Widad Ismail (Engineering Campus, Universiti Sains Malaysia, Malaysia)

**The Impact of Clustering Algorithms on Routing in Wireless Sensor Networks**
Azrina Abd Aziz (Universiti Teknologi Petronas, Malaysia); Ahmet Sekercioglu (Monash University, Australia)

**E-D2CARP: A Joint Path and Spectrum Diversity Based Routing Protocol with an Optimized Path Selection for Cognitive Radio Ad Hoc Networks**
Zamree Che-aron (International Islamic University Malaysia (IIUM), Malaysia); Aisha-Hassan Abdulla (International Islamic University Malaysia, Malaysia); Khaizuran Abdullah (International Islamic University Malaysia, Malaysia); Arafatur Rahman (University of Naples Federico II, Italy)

**Energy-Aware Cluster Based Cooperative Spectrum Sensing for Cognitive Radio Sensor Networks**
Ibrahim Mustapha (Universiti Putra Malaysia, Malaysia); Borhan Ali (ITMA-UPM, Malaysia); Aduwati Sali (UPM, Malaysia); Mohd. Fadlee A. Raisid (Universiti Putra Malaysia, Malaysia); Hafizal Mohamad (MIMOS Berhad, Malaysia)

**Enhancement of PZT energy harvester power density using natural rubber**
Linasuriani Muhamad (Uniten, Malaysia)
Energy Efficient Protocol in Wireless Sensor Networks Using Mobile Base Station
Vijayalakshmi Devasvaran, Nurul Mu'azzah Abdul Latiff and Nik Noordini Nik Abd Malik
(Universiti Teknologi Malaysia, Malaysia)

Session 1-2: Session 1-2: Antenna System & Design 1

Session 1-2
Room: Kenchana 2
Chair: Azremi Abdullah Al-Hadi (University Malaysia Perlis, Malaysia)

Compact Ultra High Frequency (UHF) slotted array antenna
Nur Akmal Abd. Rahman and Faizal Jamlos (Universiti Malaysia Perlis, Malaysia)

Combination of Defected Ground Structure (DGS) and Dielectric rod in Normal Mode Helical Antenna Design
Nabilah Ripin (UiTM, Malaysia); Ahmad Asari Sulaiman and Nur Emileen Abd Rashid
(Universiti Teknologi MARA, Malaysia); Mohamad Fahmi Hussin (UiTM, Malaysia)

High Performance of Coaxial Feed UWB Antenna for Human Brain Microwave Imaging
Aminudin Jamlos (Advanced Communication Engineering (ACE) Centre, Malaysia); Faizal Jamlos
(Universiti Malaysia Perlis, Malaysia)

Rectangular Spiral Microstrip Patch Antenna Integrated With LED For Wifi Application
Mohd Syafiq Amari (Antenna Research Centre (ARC), Microwave Technology Centre (MTC)
& Universiti Teknologi MARA, Malaysia); Mohd Tarmizi Ali (Universiti Teknologi Mara,
Malaysia); Suhaila Subahir (Universiti Teknologi MARA, Malaysia); Siti Norhidayah
Kamarudin (UiTM, Malaysia); Faizal Jamlos (Universiti Malaysia Perlis, Malaysia)

Investigation and Analysis a Carbon Nanotube Antenna Array for Wireless Applications
Abdulrahman Shueai Mohsen Alqadami (Advanced Communication Engineering Centre
(ACE), University Malaysia Perlis (UniMAP), Malaysia); Faizal Jamlos (Universiti Malaysia
Perlis, Malaysia)

Analysis of GPS Link Ionospheric Scintillation during Solar Maximum at UTEm, Malaysia
Emad F. Aon (University Teknikal Malaysia of Malacca, Tripoli University, Libya, Malaysia);
Abdul Rani Othman (, Malaysia); Yih Hwa Ho (Universiti Teknikal Malaysia Melaka,
Malaysia); Redhwan Q. Shaddad (Universiti Teknologi Malaysia (UTM) & Taiz University,
Malaysia)

10:00 AM - 10:15 AM

BR3: Tea Break

Tea Break

10:15 AM - 10:30 AM

OP-1: Opening Ceremony - Welcoming Remarks

YB Noor Sabrina Mohd Noor, Kedah State Executive Councillor, Chairman of Kedah Science, Innovation, Information Technology, Communications and High-Technology Committee

Room: Ballroom 1
Chair: Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

YB Noor Sabrina Mohd Noor, Kedah State Executive Councillor, Chairman of Kedah Science, Innovation, Information Technology, Communications and High-Technology Committee
10:30 AM - 11:00 AM

**OC2: Opening Ceremony - Welcoming Remarks**

Y.B. Dato’ Jailani Bin Johari, Deputy Minister of Communications and Multimedia, Malaysia

Room: Ballroom 1
Chair: Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

Y.B. Dato’ Jailani Bin Johari, Deputy Minister of Communications and Multimedia, Malaysia

11:00 AM - 11:45 AM

**KN-1: Keynote Address 1: Development of Synthetic Aperture Radar onboard UAV and Microsatellite**

Prof. Josaphat Tetuko Sri Sumantyo, Chiba University, Japan

Room: Ballroom 1
Chair: Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

11:45 AM - 12:30 PM

**KN-2: Keynote Address 2: 5G Evolution and Candidate Technologies**

Dr. Rath Vannithamby, Intel Corporation, USA

Room: Ballroom 1
Chair: Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

12:30 PM - 2:00 PM

**LD2: Lunch**

Lunch

2:00 PM - 2:30 PM

**IN-1: [Invited Talk] GIRN: Malaysian Government Emergency Communication Infrastructure**

En Mahzan Yusof, Sapura Secured Technologies, MALAYSIA

Room: Ballroom 2

2:00 PM - 3:30 PM

**S2-1: Session 2-1 : Cognitive Radio Network**

Room: Kenchana 3
Chair: Ahmad Asari Sulaiman (Universiti Teknologi MARA, Malaysia)
Spectrum Opportunity Forecasting for Energy Efficient Sensing in Cognitive Radio Networks
Simon D Barnes and Bodhaswar TJ Maharaj (University of Pretoria, South Africa); Attahiru S. Alfa (University of Manitoba, Canada)

Base Station Blossoming and Withering Technique for Heterogeneous Wireless Networks Using Fuzzy Logic
Aida Al-Samawi and Aduwati Sali (UPM, Malaysia); Nor K. Noordin, Mohamed Othman and Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

Rural Broadband Plan in India: A TVWS Scenario
Priyanka Sharma (International Institute of Information Technology, Hyderabad, India); Rama Garimella (IIIT Hyderabad, India)

A RSSI-based Rogue Access Point Detection Framework for Wi-Fi Hotspots
Nazrul Muhaimin Ahmad (Multimedia University, Malaysia); Mohd Faizal Abdollah and Robiah Yusof (Universiti Teknikal Malaysia Melaka, Malaysia); Anang Hudaya Muhamad Amin (MMU, Malaysia); Subarmaniam Kannan (Multimedia University, Malaysia)

On the Detection Performance of Cooperative Spectrum Sensing using Particle Swarm Optimization Algorithms
Tareq M. Shami (MMU, Malaysia); Ayman A. El-Saleh (University Multimedia (MMU), Malaysia); Aymen M. Kareem (MMU, Cyberjaya, Malaysia)

S2-2: Session 2-2: Information & Coding Theory

Room: Kenchana 2
Chair:sieh Kiong Tiong (UNITEN, Malaysia)

Low Complexity Technique Exploiting 2D Source Correlation using Single Parity Check Codes
Mohd Azri Mohd Izhar, Hazilah Mad Kaidi, Rudzidatul Dziyauddin and Norulhusna Ahmad (Universiti Teknologi Malaysia, Malaysia)

ReLaB: A Subtree Based Labeling Scheme For Efficient XML Query Processing
Samini Subramaniam (Multimedia University, Malaysia); Su-Cheng Haw (MMU, Malaysia); Soon Lay-Ki (Multimedia University, Malaysia)

ME Labeling: A Robust Hybrid Scheme for Dynamic Update in XML Databases
Samini Subramaniam (Multimedia University, Malaysia); Su-Cheng Haw (MMU, Malaysia)

Performance Analysis of MapReduce on OpenStack-based Hadoop Virtual Cluster
Nazrul Muhaimin Ahmad (Multimedia University, Malaysia); Anang Hudaya Muhamad Amin (MMU, Malaysia); Subarmaniam Kannan and Asrul Hadi Yaacob (Multimedia University, Malaysia)

Hep-2 Cell Images Fluorescence Intensity Classification To Determine Positivity Based On Neural Network
Hasyeme Nasir (Universiti Teknologi PETRONAS, Malaysia); Zazilah May (Universiti Teknologi Petronas, Malaysia); Nor Zaihar Yahaya (Universiti Teknologi PETRONAS, Malaysia)

Wireless Infrared Proximity Array Sensor for Three-Dimensional Surface Reconstruction
Siti Asmah Daud, Nasrul Humaimi Mahmood and Pei Ling Leow (Universiti Teknologi Malaysia, Malaysia)

2:30 PM - 3:00 PM
IN-2: [Invited Talk] - Emergency Communication Infra in Department of Irrigation and Drainage Malaysia

Dato' Ir. Hj. Mohd Nassir Bin Bidin, Pegarah, Bahagian Pengurusan Sumber Air dan Hidrologi, Jabatan Pengaliran dan Saliran, Malaysia

Dato' Ir. Hj. Mohd Nassir Bin Bidin, Pegarah, Bahagian Pengurusan Sumber Air dan Hidrologi, Jabatan Pengaliran dan Saliran, Malaysia

Room: Ballroom 2
Chair: Norashidah Din (Universiti Tenaga Nasional, Malaysia)

3:00 PM - 3:30 PM

S2-3: Special Track 1 : Emergency Communications for Disaster Management 1

Special Track 1 : Emergency Communications for Disaster Management 1
Room: Ballroom 2

Development of Historical Landslide Database in Malay Peninsula
Satoshi Murakami (Ibaraki University & Faculty of Engineering, Japan); Tomomi Nishigaya (Ibaraki University, Japan); Tay Lea Tien and Habibah Lateh (Universiti Sains Malaysia, Malaysia)

Landslide Hazard Mapping of Penang Island Using Dominant Factors
Tay Lea Tien, Mutasem Sh. Alkhasawneh, Umi Kalthum Ngah and Habibah Lateh (Universiti Sains Malaysia, Malaysia)

Integrated Flood Analysis System (IFAS) for Kelant River Basin
Aminah Shakirah Jaafar (Universiti Tenaga Nasional, Malaysia)

3:45 PM - 4:00 PM

BR4: Tea Break

4:00 PM - 4:30 PM

IN-3: [Invited Talk] Application of high-capacity E-band wireless links as disaster countermeasures

Mr Choo Chee Leong, Fujitsu Telecommunications Asia Sdn Bhd
Mr Choo Chee Leong, Fujitsu Telecommunications Asia Sdn Bhd

Room: Ballroom 2

4:00 PM - 5:45 PM

S3-1: Session 3-1 : Antenna Design & Applications

Room: Kenchana 3
Chair: Mohd Fais Mansor (Universiti Kebangsaan Malaysia, Malaysia)

Performance of Ultra-Wideband Antenna in Different Mediums: Free Space vs. Water
Siti Zubaidah Aziz (UNIMAP, Malaysia); Faizal Jamlos (Universiti Malaysia Perlis, Malaysia)

Circular Polarized Phased Shift 90° MIMO Array Antenna for 5.8 GHz Application
Mohd Khairul Azhar Nayan and Faizal Jamlos (Universiti Malaysia Perlis, Malaysia)
Comparison of Indoor Propagation Models for Multi Floor Staircase at 900 MHz and 1800 MHz
Omar Abdul Aziz (Universiti Teknologi Malaysia, Malaysia); Tharek Abdul Rahman (Wireless Communication Centre, Malaysia)

Hybrid Carbon Nanotubes with Copper Radiator for 4x2 Array Antennas at 2.6 GHz
Wan Wan Muhamad, Wan Muhamad and Razali Ngah (Universiti Teknologi Malaysia, Malaysia); Faizal Jamlos (Universiti Malaysia Perlis, Malaysia); Aminudin Jamlos (Advanced Communication Engineering (ACE) Centre, Malaysia)

On the Capacity of the Underwater Acoustic Channel with Dominant Noise Sources
Mustafa A Kishk and Ahmed Alaa (Cairo University, Egypt)

UWB Microwave Imaging of the Lungs: A Review
Oluwatosin Babarinde and Faizal Jamlos (Universiti Malaysia Perlis, Malaysia); Nordin Ramli (MIMOS Berhad, Malaysia)

Initial Analysis On Dual Frequency Operation For Single Layer Reflectarray Antenna
Siti Hafizah Yusop (Universiti Kebangsaan Malaysia, Malaysia); Norbahiah Misran (University Kebangsaan Malaysia, Malaysia); Mohd Fais Mansor (Universiti Kebangsaan Malaysia, Malaysia); Mohammad Tariqul Islam (Universiti Kebangsaan Malaysia & Universiti Kebangsaan Malaysia, Malaysia); Maisarah Abu (Universiti Teknikal Malaysia Melaka, Malaysia)

S3-2: Session 3-2 : Telecommunication Network

Room: Kenchana 2
Chair: Mohd Azri Mohd Izhar (Universiti Teknologi Malaysia, Malaysia)

Enhanced Bandwidth Estimation Design based on probe-rate model for Multimedia Network
Pik Jian Low (TM Research & Development, Malaysia); Mohamad Yusoff Alias (Multimedia University & Academic Honorary Visitor at University of Manchester, Malaysia)

Performance Analysis of Real Time Media Application in OpenFlow Network
Sahrul Hilmi Ibrahim (TM R&D Sdn Bhd, Malaysia); Sevia Mahdaliza Idrus (Faculty Of Electrical Engineering & Universiti Teknologi Malaysia, Malaysia); Nadiatulhuda Zulkifli (Universiti Teknologi Malaysia, Malaysia)

Steps Toward the Design of Hybrid Metaheuristics for the Multi-Objective Frequency Assignment Problem in Broadcasting
Akram Bedoui, A. (University of Lorraine & TDF Company, France); Philippe Debreux (TDF, France); Lhassane Idoumghar (University of Haute Alsace, France); René Schott (LORIA, France); Thierry Schott (TDF, France)

Analysis of Internet service user audiences for network security problems
Andrei Sukhov (Samara State Aerospace University & Internet TV ltd., Russia); Evgeny Sagatov (Samara State Aerospace University & Internet TV Ltd., Russia); Alexander Baskakov (Samara State Aerospace University, Russia)

Energy Aware Resource Coordination in Heterogeneous Networks
Ayad Atiyah Abdulkafi (Universiti Tenaga Nasional & MIMOS, Malaysia); Sieh Kiong Tiong (UNITEN, Malaysia); David Chieng (MIMOS & Wireless Cluster, Malaysia); Alvin Kee Ngoh Ting (MIMOS, Malaysia); Johnny Koh (Universiti Tenaga Nasional, Malaysia); Abdulaziz M. Ghaleb (Qatar Mobility Innovations Center (QMIC), Qatar)

Recommendations for Enhancement on Ground Communication System at ANGKASA, Malaysia for Space Missions
Sock Theng Ooi and Hamid Salim (National Space Agency, Malaysia)

Optimal Null Steering of Minimum Variance Distortionless Response Adaptive
Beamforming Using Particle Swarm Optimization and Gravitational Search Algorithm
Soodabeh Darzi (Universiti Kebangsaan Malaysia, Malaysia); Sieh Kiong Tiong (UNITEN, Malaysia); Mohammad Tariqul Islam (University Kebangsaan Malaysia, Malaysia); Mahamod Ismail and Salehin Kibria (Universiti Kebangsaan Malaysia, Malaysia)

4:30 PM - 5:30 PM
S3-3: Session 3-3: Special Track on Disaster Management 2

Room: Ballroom 2

Development of a Semi-Automated SAR Test-Bed
Zafri Baharuddin (Chiba University & Universiti Tenaga Nasional, Japan); Kyohei Suto and Josaphat Tetuko Sri Sumantyo (Chiba University, Japan); Hiroaki Kuze (Center for Environmental Remote Sensing, Chiba University, Japan); Tien Sze Lim, Kuo Shen Jason Yee, Wen Guey Cheaw and Voon Koo (Multimedia University, Malaysia)

Hazard mapping of Slope failures in Malay Peninsula by using a Historical map of Slope disaster
Satoshi Murakami (Ibaraki University & Faculty of Engineering, Japan); Tomomi Nishigaya (Ibaraki University, Japan)

Dynamic Resource Block for Base Station Grouping in Macro-diversity Systems for LTE Public Safety Networks
Rosdiadee Nordin and Mohammed Alsharif (Universiti Kebangsaan Malaysia, Malaysia); Graeme K Woodward (University of Canterbury, New Zealand)

Generating 1 Meter Contour from ASTER-GDEM for Monitoring landslide in Merapuh Area
Mohd Firdaus Md Alip and Rohayu Che Omar (Universiti Tenaga Nasional, Malaysia)

8:00 PM - 10:00 PM
Dinner: Conference Dinner

Conference Dinner

10:00 PM - 11:00 PM
D2-E: End of Day 2

End of Day 2

Wednesday, November 26

8:00 AM - 8:30 AM
D3-R: Registration

Registration

8:30 AM - 10:00 AM
S4-1: Session 4-1: WiMAX, LTE, WMAN and Other Emerging Broadband Wireless Network

Session 4-1
Room: Kenchana 3
Chair: Chee Kyun Ng (Universiti Putra Malaysia, Malaysia)

**Two-Dimensional Burst Construction with QoS Assurance for OFDMA Mobile WiMAX System**
Ali Mohammed Alsahag (University Putra Malaysia, Malaysia); Hafizal Mohamad and Nordin Ramli (MIMOS Berhad, Malaysia); Borhan Ali (ITMA-UPM, Malaysia); Nor K. Noordin (Universiti Putra Malaysia, Malaysia)

**Implementation of high performance Advanced Encryption Standard-128 for WiMAX Application on FPGA**
Rafidah Ahmad (Universiti Sains Malaysia & Collaborative MicroElectronic Design Excellence Centre (CEDEC), Malaysia); Widad Ismail (Engineering Campus, Universiti Sains Malaysia, Malaysia)

**Investigation of User Scheduling Schemes Under Different MIMO Transmission Modes for Carrier Aggregation in LTE-A**
Ahmed A Ali Sabri, Rosdiadee Nordin, Mahamod Ismail and Huda Abdullah (Universiti Kebangsaan Malaysia, Malaysia)

**A Throughput Analysis of Uplink Subframe Polling in IEEE 802.16j Network**
Mohd Daud Alang Hassan, Habibah Hashim, Darmawaty Mohd Ali and Azlina Idris (Universiti Teknologi MARA, Malaysia)

**Distributed Resource Allocation For Spatially Distributed Irregular Cells**
Hashim Safdar (Universiti Teknologi Malaysia & IEEE Student Membership, Malaysia); Norsheila Fisal (Universiti Teknologi Malaysia & Faculty of Electrical Engineering, Malaysia); Rahat Ullah (Universiti Teknologi Malaysia (UTM), Malaysia)

**S4-2: Session 4-2 (Optical Network and System)**

Session 4-2
Room: Kenchana 2

**FTTH Link Loss Analysis for Coexistence of TWDM-PON System in Malaysia**
Zulhedry Abd Manaf (TM R&D Sdn Bhd & National University of Malaysia, Malaysia); Dedy Tarsono (TM Research & Development, Malaysia); Asmahanim Ahmad (TM R&D Sdn Bhd, Malaysia); Ummi Supya Ismail (TMR&D Sdn. Bhd., Malaysia); Zamzuri Abdul Kadir (Telekom Research & Development, Malaysia); Mohammad Harris Mokhtar and Mohammad Zulhafiz Hamidun (TM Research & Development, Malaysia)

**The study on pressure effect on characterization of directional coupler for different thickness of fiber cores in POF splitter development**
Latifah Supian, Mohd Syuhaimi Ab. Rahman and Norhana Arsad (Universiti Kebangsaan Malaysia, Malaysia)

**Multiple Access Ethernet Passive Optical Network Testbed**
Sajaa Almola, Norashidah Din and Nurul Asyikin Mohd. Radzi (Universiti Tenaga Nasional, Malaysia); Mashkuri Yaacob (UNITEN, Malaysia); Martin Maier (Institut National de la Recherche Scientifique (INRS), Canada)

**Planar Terahertz Metamaterial Using Triangular Spiral Ring Resonator**
Nadeem Naeem (UPM, Malaysia); Alyani Ismail and Adam Alhawari (Universiti Putra Malaysia, Malaysia); Mohd. Adzir b. Mahdi (Photonics Laboratory, Department of Computer, Malaysia)

**A new dynamic bandwidth allocation algorithm for fiber wireless network**
Nurul Asyikin Mohd. Radzi and Norashidah Din (Universiti Tenaga Nasional, Malaysia); Mohammed Hayder Al-Mansoori (Sohar University & Faculty of Engineering, Oman); Nor Iza Mohd Rawi (Universiti Tenaga Nasional, Malaysia); Fairuz Abdullah (Universiti Tenaga
Nasional & Center for Photonic Technologies, Malaysia); **Aiman Ismail** (Universiti Tenaga Nasional, Malaysia)

**Accuracy Issues in Microwave Characterization of Graphene Transmission Lines**
Nur Amira Abdul Rahim (UITM, Malaysia); Zaiki Awang (Universiti Teknologi MARA, Malaysia)

**S4-3: Session 4-3: Adhoc and Wireless Sensor Networking 2**

Session 4-3
Room: Ballroom 2

**Multi-Objective Biological Mimicry Optimization Algorithm for WSN Sensor Node Placement**
Husna Zainol Abidin (Universiti Teknologi MARA, Malaysia); Norashidah Din and Nurul Asyikin Mohd. Radzi (Universiti Tenaga Nasional, Malaysia)

**Collaborative Beamforming Null-Steering Array for Wireless Sensor Networks**
Nik Noordini Nik Abd Malik and Nurul Mu’azzah Abdul Latiff (Universiti Teknologi Malaysia, Malaysia); Mazlina Esa (Universiti Teknologi Malaysia, Malaysia); Sharifah K. Syed-Yusof (Universiti Teknologi Malaysia, Malaysia)

**Wireless Sensor Network: A Complete Solution for Poultry Farming**
Muhammad Ayaz Arshad (University of Tabuk, KSA & University of Tabuk, Saudi Arabia); Muhammad Ammad-uddin (Sensor Networks and Cellular Systems University of Tabuk, Malaysia); Muhammad Sajjad (Government College Sahewal, Pakistan); Hadi Aggoune (University of Tabuk, Saudi Arabia)

**Overcomplete Source Expansion Aided, Soft-bit Assisted Speech Transceiver**
Noor Shamsiah Othman (Universiti Tenaga Nasional, Malaysia); Nurul Farahin (UNITEN, Malaysia); Ahmed Al-Zydi (University of Diyala & College Of Engineering, Iraq)

**Energy Efficient Virtual Machine Provisioning in Cloud Data Centers**
Nasrin Akhter and Mohamed Othman (Universiti Putra Malaysia, Malaysia)

**Performance Investigations of Frequency Agile Enabled TelosB Testbed in Home Area Network**
Rozeha A. Rashid and Muhammad Rezan Resat (Universiti Teknologi Malaysia, Malaysia); Mohd Adib Sarijadi (Universiti Teknologi Malaysia & Delft University of Technology, Malaysia); Nur HIja Mahalin (UTM, Malaysia); Mohd Sharil Abdullah (Delft University of Technology & Universiti Teknologi Malaysia, The Netherlands); Abdul Hadi Fikri Abdul Hamid (Universiti Teknologi Malaysia, Malaysia)

**Provisioning an Energy Efficient with Maximum Coverage WSN through Biological Inspired Sensor Node Placement**
Husna Zainol Abidin (Universiti Teknologi MARA, Malaysia); Norashidah Din (Universiti Tenaga Nasional, Malaysia)

**10:00 AM - 10:15 AM**

BR5: Tea Break

Tea Break

**10:15 AM - 11:00 AM**

KN3: Keynote Address 3: Geospatial Information for Emergency Communications in Disaster Management
Assoc Prof Dr. Abdul Rashid Bin Mohamed Shariff, Universiti Putra Malaysia, MALAYSIA

Room: Ballroom 1
Chair: Borhan Ali (ITMA-UPM, Malaysia)

11:00 AM - 11:45 AM

KN4: Keynote Address 4: Smartgrid Communications

Dr. Farrokh Farrokhi, Co-founder, EnVerv

Room: Ballroom 1
Chair: Borhan Ali (ITMA-UPM, Malaysia)

11:45 AM - 12:45 PM

IP-1: Industry Forum: Internet of Things

Dr. Gopinath Rao (MIMOS), Mohd Parid Sulaiman (Intel) and Yew Kok Han (Commaxion)

Room: Ballroom 1
Chair: Mahamod Ismail (Universiti Kebangsaan Malaysia, Malaysia)

Dr. Gopinath Rao (MIMOS), Mohd Parid Sulaiman (Intel) and Yew Kok Han (Commaxion)

12:45 PM - 2:00 PM

LD3: Lunch

Lunch

2:00 PM - 3:30 PM

S5-1: Session 5-1: Wireless Communication System

Room: Kenchana 3

Fractional Frequency Reuse for Irregular Cell Geometry OFDMA Systems
Rahat Ullah (Universiti Teknologi Malaysia (UTM), Malaysia); Norsheila Fisal (Universiti Teknologi Malaysia & Faculty of Electrical Engineering, Malaysia); Hashim Safdar (Universiti Teknologi Malaysia & IEEE Student Membership, Malaysia)

Compensation of Frequency In-dependent I/Q Imperfections using LMS algorithm
Faraz Talebpour (University Putra Malaysia, Malaysia); Pooria Varahram (UPM, Malaysia); Borhan Ali (ITMA-UPM, Malaysia); Aduwati Sali (UPM, Malaysia)

A Multihoming-based Mobility Management Scheme to Reduce Registration Delay on Proxy MIPv6 Domain in NEMO
Shayla Islam (International Islamic University Malaysia, Malaysia); Aisha-Hassan Abdulla (International Islamic University Malaysia, Malaysia); Mohamed Hadi Habaebi (International Islamic University Malaysia (IIUM), Malaysia); Suhaimi Latif and Mohammad Kamrul Hasan (International Islamic University Malaysia, Malaysia); Wan H Hassan (M'sia-Japan International Institute of Technology, UTM KL, Malaysia)

Mobility Recognition System for the Visually Impaired
Shapina Abdullah (Universiti Teknologi MARA, Malaysia)

**A Dynamic Approach for Device Characteristics based on String Matching Technique**

Nurshahril Idura Ramli (Universiti Teknologi MARA & Faculty of Computer and Mathematical Sciences, Malaysia); Mohd Faisal Ibrahim, Saadiah Yahya and Mohd Nasir Taib (Universiti Teknologi MARA, Malaysia); Alya Geogiana Buja (Universiti Teknologi MARA, Malaysia)

**Distributed Channel Assignment Based on Congestion Information in Wireless Mesh Network**

Arslan Musaddiq and Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

**Performance Analysis of Coordinated MultiPoint (CoMP) in Long Term Evolution-Advanced**

Liew Jiun Terng and Fazirulhisyam Hashim (Universiti Putra Malaysia, Malaysia)

**S5-2: Session 5-2: Antenna & Propagation**

Session 5-2  
Room: Kenchana 2  
Chair: Mohd Fais Mansor (Universiti Kebangsaan Malaysia, Malaysia)

**An Overview of Outdoor Propagation Prediction Models**

Siti Fuziah Binti Hamim and Faizal Jamlos (Universiti Malaysia Perlis, Malaysia)

**Assessment of ITU-R Predictions for Ku-Band Rain Attenuation in Malaysia**

Muhamad Haziq Khairolnuar (International Islamic University of Malaysia, Malaysia); Ahmad Fadzil Ismail, Khairayu Badron, Ahmad Jusoh and Farah Nadia Mohd Isa (International Islamic University Malaysia, Malaysia); Sheroz Khan (International Islamic University Malaysia, Malaysia)

**Assessment of Empirical Conversion Methods for Producing 1-min Integration Time Rainfall Rate in Malaysia**

Muhamad Haziq Khairolnuar (International Islamic University of Malaysia, Malaysia); Ahmad Fadzil Ismail and Ahmad Jusoh (International Islamic University Malaysia, Malaysia)

**Design of an Embedded Data Acquisition System for Remote Application**

Mostafijur Rahman, Md. (Universiti Malaysia Perlis (UNIMAP), Malaysia); Alaa Mashkor (Unimap, Malaysia); Badlishah R Ahmad and Zahraa Ali (Universiti Malaysia Perlis, Malaysia)

**Design and Development of C-Band Microwave Amplifier for Wireless Applications**

Abdulrahman Shueai Mohsen Alqadami (Advanced Communication Engineering Centre (ACE), University Malaysia Perlis (UnIMAP), Malaysia); Faizal Jamlos (Universiti Malaysia Perlis, Malaysia)

**A Compact Ultra Wideband Antenna with Band-Notched Design**

Yanti Erana Jalil and Chandan Chakrabarty (Universiti Tenaga Nasional, Malaysia); Baskaran Kasi (Universiti Infrastruktur Kuala Lumpur, Malaysia)

**S5-3: Special Track 2: Smart Grid and Utility Communication**

Special Track 2: Smart Grid and Utility Communication  
Room: Ballroom 2  
Chair: Hang See Ong (Universiti Tenaga Nasional, Malaysia)

**A Robust Receiver for OFDM Systems in Nonlinear Impulse Channels**

http://edas.info/p16981
Der-Feng Tseng, Li-Chung Chang and Yunghsiang Sam Han (National Taiwan University of Science and Technology, Taiwan)

**Performance of Cognitive Smart Grid Communication in Home Area Network**
Yik Kuan Hiew (Universiti Tenaga Nasional, Malaysia); Norazizah Mohd Aripin (Dept. of Electronics and Communication Engineerin, UNITEN, Malaysia); Norashidah Din (Universiti Tenaga Nasional, Malaysia)

**Investigation of Mobility Supports for Smart-Secured-Seamless (SSS) Public Transportation in Kuala-Lumpur Based on TV White Space**
Hilary Anabi, Rosdiadee Nordin and Mahamod Ismail (Universiti Kebangsaan Malaysia, Malaysia)

**High frequency AC characteristics of 132kV power cable**
Chandan Chakrabarty (Universiti Tenaga Nasional, Malaysia)

**Development of High Frequency Tan Delta Measurement Method for 132kV Transmission Underground Cables**
Chandan Chakrabarty (Universiti Tenaga Nasional, Malaysia)

**Optimized Load Balancing for Efficient Resource Provisioning in the Cloud**
Ranesh Naha and Mohamed Othman (Universiti Putra Malaysia, Malaysia)

**3:30 PM - 4:00 PM**

**BR6: Tea Break**

Tea Break

Tea Break

**4:00 PM - 4:15 PM**

**D3-E: ISTT2014 Conference End**