

HONET-ICT 2018 (PROGRAM)

Day 0

TIME	Sunday					
	7-Oct-18					
LOCATION	SEECS					
0800-0930	REGISTRATION					
LOCATION	Tutorial 1 SEECS CR-1	Tutorial 2 SEECS Computing Lab 5	Tutorial 3 SEECS Computing Lab 1	Tutorial 4 SEECS Seminar Hall	Workshop 1 SEECS Computing Lab 2	Workshop 2 SEECS Control Lab
0930-1000	Tutorial on "Internet of Things" by Dr. Rafia Mumtaz, NUST- SEECS (3 Hours)	Tutorial on "Making Sense of Bitcoin" by Dr. Syed Taha Ali, NUST- SEECS (1 Hour)	Tutorial on "Big Data Analytics" by Dr Asad Ali Shah, NUST- SEECS and Dr. Kifayat Ullah Khan, FAST Islamabad (2 Hours)	Tutorial on "Formal Specification and Verification of Real-time and Cyber Physical Systems (CPS)" by Prof. Dr. Peter Csaba Ölveczky, University of Oslo, Norway, Prof. Dr. Sofiene Tahar, Concordia University, Canada and Dr. Osman Hasan NUST-SEECS	Workshop on "Practical Machine Learning Using Python" by Dr. Hassan Aqeel, NUST- SEECS (4 Hours)	Workshop on "Automation in Smart Grids" by Dr. Ammar Hassan, NUST- SEECS (4 Hours)
1000-1030						
1030-1100						
1100-1130						
1130-1200	Coffee/Tea Break					
1200-1230	Tutorial 1 contd...			Tutorial 4 contd...	Workshop 1 contd...	Workshop 2 contd...
1230-1300						
1300-1330						
1330-1430	LUNCH/PRAYER BREAK					

LOCATION	Tutorial 5 SEECs Seminar Hall	Tutorial 6 SEECs CR-1	Tutorial 7 SEECs Computing Lab 3	Workshop 3 SEECs Computing Lab 4		
1430-1500	Tutorial on "File Craving for NTFS" By Dr. Shahzad Saleem, NUST-SEECs (2 Hours)	Tutorial on "Cooperative Communications in Next Generation Networks" by Dr. Syed Ali Hassan, NUST-SEECs (2 Hours)	Tutorial on "Modeling and Simulation of Distributed Vehicular Computing" by Dr. Asad Waqar, NUST-SEECs (1.5 Hours)	Workshop on "Multi-Method Modeling of Complex IoT based Systems" by Dr. Imran Mehmood, NUST-SEECs (2 Hours)		
1500-1530						
1530-1600						
1600-1630						
1630-1700						
END OF Tutorial/Workshop Day						

Day 1

TIME	MONDAY			
	8-Oct-18			
LOCATION	JINNAH AUDITORIUM			
0800-1000	REGISTRATION			
1000-1005	INAUGURAL CEREMONY	Recitation of Holy Quran		
1005-1015		Overview by General Chair		
1015-1020		Address by Steering Committee Co-Chair		
1020-1030		Welcome Address by Rector		
1030-1050		KEYNOTE By: Prof Dr. Mohammad Shahidehpour , Illinois Institute of Technology, USA		
1050-1105		Address by Chief Guest		
1105-1130		COFFEE/TEA BREAK		
1130-1205	INAUGURAL CEREMONY Contd...	Talk Title: UAVs as a Service (UaaS) for Wireless Networks by Prof. Dr. Ahmed E. Kamal, Iowa State University, USA		Industry Exhibition Jinnah Auditorium Lobby
1205-1240		Talk Title: Trans active Energy in Networked Micro grids for Enhancing the Resilience, Reliability, Security and Economics of Distributed Electric Power Systems by Prof Dr. Mohammad Shahidehpour, Illinois Institute of Technology, USA		
1240-1255		HUAWEI ICT Skills Competition		
1300-1355	LUNCH/PRAAYER BREAK			

LOCATION	Plenary Session (JINNAH AUDITORIUM) Next Generation Higher Education: Prospects and Challenges In the Connected World Chair: Dr. M. Yasin Akhtar Raja Co-Chair: Dr. S. M. Hassan Zaidi	Session 1 Thematic Area: IoT and Smart Cities (SEECs Seminar Hall) Chair: Dr. Junaid Zubairi Co- Chair: Dr. Anis ur Rehman	(SEECs CR-1) Chair: Dr. Asad Ali Shah	Industry Exhibition
1400-1430	Introduction to the Session by Chair (5 mins)	Talk on "IoT (Internet of Things) smart city applications" by Dr. Junaid Zubairi, SUNY Fredonia, NY, USA	PhD Three Minutes Thesis Stage-1	Jinnah Auditorium Lobby Chair: Dr. Muhammad Shahzad/ Hamza
1430-1500	Invited Speaker 1: Dr. Athar Mahboob, Vice Chancellor, Khwaja Fareed University of Engineering and IT (10 mins)	Talk on "Design and Validation of Cloud Storage Systems using Formal Methods" by Prof. Dr. Peter Csaba Ölveczky, University of Oslo, Norway		
1500-1520	Invited Speaker 2: Dr. Muhammad Ayub Alvi, Rector FAST-NU, Lahore (10 mins)	Paper S1-1: An approach for demand side management of non-flexible load in academic buildings		
1520-1540	Invited Speaker 3: (10 mins) Invited Speaker 4: Prof Dr. Fazal Ahmed Khalid, Vice Chancellor, UET Lahore (10 mins)	Paper S1-2: Small Cell-based Ambulance Scenario for Medical Video Streaming: A 5G-health use case		
1540-1600	Invited Speaker 5: Dr. Muhammad Manhad Satti/Dr. S. M. Hassan Zaidi (10 mins) Discussion (55 mins)	Paper S1-3: DronAID- Smart Human Detection Drone for Rescue Paper S1-4: Prediction Of Cloud Computing Resource Utilization		
1600-1620	Tea Break	Paper S1-5: Two dimensional materials based heterostructures for photosensing applications		
1620-1700		Session Closing		
END OF DAY ONE				

Day 2

TIME	TUESDAY					
	9-Oct-18					
LOCATION	SEECs					
0800-0900	REGISTRATION					
LOCATION	<p>Symposium on ICT in Education (SEECs Seminar Hall) Chair: Dr. Asif Raza, Pro Rector Academics Co-Chair: Dr. Mudassir Malik</p>	<p>Session 2 Thematic Area: Smart Grids (SEECs CR-1) Chair: Prof. Dr. Sofiene Tahar Co-Chair: Dr. Ammar Hassan</p>	<p>Session 3 Thematic Area: AI and Machine Learning (SEECs Research Hub) Chair: Dr. Adrian Ulges Co-Chair: Dr. Seemab Latif</p>	<p>Workshop 4</p>	<p>Poster Exhibition</p>	<p>Industry Exhibition</p>
0900-0930	<p>Session Overview: Dr. Mudassir Malik (5 mins) Introduction to STEM: Ms Manzil-e-Maqsood (15 mins) How STEM Evolved?: Shamyil Bin Mansoor (20 mins) Need for STEM Education in Pakistan: Nida Athar (30 mins) STEM: Present and Future: Nishat Riaz (30 mins) STEM-US Perspective: Dr. Shagufta Y. Raja (15 mins) Concluding Remarks: Dr. Asif Raza (10 mins)</p> <p>Tea break (20 mins)</p>	<p>Talk on "Adaptive Scheduling of Big Data for Cloud based Smart City Services" by Prof. Dr. Sofiene Tahar, Concordia University, Canada</p>	<p>Talk on "Deep Learning in Natural Language Processing" By Prof. Dr. Adrian Ulges, RheinMain University of Applied Science, Germany</p>	<p>Workshop on "Programming Internet of Things" by Dr. Rafia Mumtaz, NUST-SEECs (4 Hours) SEECs Basic Electronic Lab</p>	<p>SEECs Innovation Hub Chair: Dr. Muhammad Zeeshan</p>	<p>Jinnah Auditorium Lobby Chair: Dr. Muhammad Shahzad/ Hamza</p>
0930-1000		<p>Paper S2-1: Review of High Voltage DC/DC Modular Multilevel Converters</p>	<p>Talk on "Artificial Intelligence and Unmanned Aerial Vehicles" by Prof. Dr. Ulrich Schwanecke, RheinMain University of Applied Science, Germany</p>			
0100-1020		<p>Paper S2-2: Virtual Power Quality Analyzer Emphasizing the Distortion Factor in Power Factor Calculation</p>	<p>Paper S3-1: Topic based Summarization of Multiple Documents using Semantic Analysis and clustering</p>			
1020-1040		<p>Paper S2-3: Performance analysis of 24/7 working environment of Switched Reluctance Motor</p>	<p>Paper S3-2: Changing the dynamics of training by predictive modeling</p>			
1040-1110		<p>Paper S4-4: A Low-Cost Smart Load Enabler Device</p>	<p>Paper S3-3: Energy Efficient Localization in Wireless Sensor Networks Using Computational Intelligence</p>			

1110-1130	PhD Three Minutes Thesis Stage-2 SEECs Seminar Hall Chair: Dr. Asad Ali Shah	Paper S2-5: An Optimal Distributed Algorithm for Best AP Selection and Load Balancing in WiFi	Paper S3-4: Solution of Economic Load Dispatch Problem by Modified Whales Optimization Algorithm		
1130-1140		Session Closing	Paper S3-5: Neuron Simulation; Simulating Neuron through Agent-Based Modeling		
1140-1200			Session Closing		
1200-1230					
1230-1300					
1300-1355	LUNCH/PRAYER BREAK				
LOCATION	Symposium JINNAH AUDITORIUM Symposium on Industry-Academia Interaction: Approaches, Options and Challenges Chair: Dr. Nassar Ikram, Pro Rector RIC Co-Chair: Dr. S. M. Hassan Zaidi				Industry Exhibition
1400-1430	Introduction to the Session by Chair (5 mins) Industry Invited Speaker 1: Mr. Nadeem Malik, CEO, Naxis (10 mins) Industry Invited Speaker 2: Mr. Wahaj Us Siraj, CEO, Nayatel (10 mins) Industry Invited Speaker 3: Mr. Haris Ali, Managing Director, Rhode & Schwaz (10 mins) Industry Invited Speaker 4: Academia Invited Speaker 1: Dr. Wasim Ikram, Director NU-FAST, Islamabad (10 mins) Academia Invited Speaker 2: Academia Invited Speaker 3: Academia Invited Speaker 4: Discussion (15 mins)				Jinnah Auditorium Lobby Chair: Dr. Muhammad Shahzad/ Hamza
1430-1500					
1500-1530					
1530-1600					
1600-1620				Tea Break	
1620-1700	END OF DAY TWO				

Day 3

TIME	WEDNESDAY			
	10-Oct-18			
LOCATION	SE ECS			
0800-0900	REGISTRATION			
LOCATION		Session 4 Thematic Area: IoT SE ECS CR-1 Chair: Dr. Masud Chowdhury Co-Chair: Dr. Rafia Mumtaz	Session 5 Thematic Area: Wireless/Photonic Networks SE ECS Research Hub Chair: Dr. Robert Splinter Chair: Dr. Syed Ali Hassan	Industry Exhibition
0900-0930		Talk on "Next Generation Ultra-Low-Power Technologies for Internet-of-Things (IOT), Wireless Sensor Network (WSN) and Artificial Intelligence (AI) Era" by Dr. Masud Chowdhury, University of Missouri, Kansas, USA	Talk on "Nano-Biosensor Systems in Clinical Diagnostics and Physiological Monitoring Networks" by Dr. Robert Splinter, University of North Carolina, Charlotte, USA	Jinnah Auditorium Lobby Chair: Dr. Muhammad Shahzad/ Hamza
0930-0950		Talk on "IoT Enabled Citizen Science Project and the Need for Satisficing" by Dr. Stefan Poslad, University of Queens Mary, UK (Video Talk)	Paper S5-1: A Holistic Approach for Lifetime Prolonging and Femto Base Station's Sleeping Strategy in HetNets	
0950-1010		Paper S4-1: Zigbee Based Time and Energy Efficient Smart City Parking System Using IOT	Paper S5-2: Congestion-Aware Routing Algorithm Based on Traffic Priority in Wireless Sensor Networks	
1010-1030		Paper S4-2: Automatic Formal Verification of Digital Components of IoTs Using CBMC	Paper S5-3: Real time and Efficient Unicast Routing Protocols for Vehicular Ad Hoc Network: A Survey and Recommendations for efficiency enhancement	
1030-1050		Paper S4-3: Surface Water Pollution Detection using Internet of Things	Paper S5-4: End to End Latency incurred in Cooperative Communication System	

1050-1100	Symposium on ICT for CPEC Seminar Hall Chair: Mr. Zhao Li Jian Co-Chair: Dr. Imran Mehmood	Paper S4-4: Scenario-based Impediments for Intelligent Freight Transportation in Pakistan	Paper S5-5: A Self-Adaptive Superframe Structure for Emergency Traffic Based IEEE 802.15.5	
1100-1115	Welcome Note: Dr. Imran Mehmood (5 mins) Invited Speaker 1: Mr. Amer Hashmi(15 mins) Invited Speaker 2: Syed Hassan Javeed (15 mins) Invited Speaker 3: Dr. Imran Mehmood-ICT Problems and Opportunities-CPEC Perspective (15 mins) Invited Speaker 4: Dr. Zamir Ahmed Awan (15 mins) Invited Speaker 5: Dr. Hassan Arshad - Challenges and Innovations in Smart Transportation – CPEC Perspective (15 mins) Panel Discussion (30 mins) Concluding Remarks by Chief Guest: Mr. Zhao Li Jian (15 mins)	Paper S4-5: A Very Low Cost, Open, Wireless, Internet of Things (IoT) Air Quality Monitoring Platform	Paper S5-6: Design and Modeling of VTOL Tri Tilt-rotor Aircraft	
1100-1115		Session Closing	Session Closing	
1115-1130		COFFEE/TEA BREAK		
1130-1150				Closing industry Exhibition
1150-1210				
1210-1230				
1230-1300				
1300-1355	LUNCH/PRAAYER BREAK			
LOCATION	JINNAH AUDITORIUM			
1600-1605	CLOSING CEREMONY	Recitation of Holy Quran		
1605-1615		Review by Conference Chair (Dr. Muazzam Ali Khan Khattak)		
1615-1620		Address by General Chair		
1620-1625		Address by Steering Committee Co-Chair		
1625-1635		Address by Rector		
1635-1650		Address by Chief Guest		
1650-1705	COFFEE/TEA BREAK			
END OF DAY THREE				

Session Details

Session	Paper ID	Title	Authors
Session 1 Thematic Area: IoT and Smart Cities	Paper S1-1	An approach for demand side management of non-flexible load in academic buildings	<i>Abdul Hafeez Abid (National University of Science and Technology, Pakistan); Ammar Hasan (National University of Science and Technology, Islamabad, Pakistan)</i>
	Paper S1-2	Small Cell-based Ambulance Scenario for Medical Video Streaming: A 5G-health use case	<i>Ikram Ur Rehman (Coventry University, United Kingdom (Great Britain)); Moustafa M Nasralla (Prince Sultan University, Saudi Arabia); Ajaz Ali (Coventry University, United Kingdom (Great Britain)); Nada Y Philip (Kingston University, United Kingdom (Great Britain))</i>
	Paper S1-3	DronAID- Smart Human Detection Drone for Rescue	<i>Rameesha Tariq (4B 10/8A Nazimabad no 4 & Jinnah University For Women, Pakistan)</i>
	Paper S1-4	Prediction Of Cloud Computing Resource Utilization	<i>Tajwar Mehmood (NUST, Pakistan); Seemab Latif (National University of Science and Technology, Pakistan)</i>
	Paper S1-5	Two dimensional materials based heterostructures for photosensing applications	<i>Muhammad Zahir Iqbal (GIK Institute of Engineering Science and Technology & GIK Institute of Engineering Science and Technology, Pakistan); Sana Khan (GIK Institute of Engineering Sciences and Technology, Pakistan)</i>
Session 2 Thematic Area: Smart Grids	Paper S2-1	Review of High Voltage DC/DC Modular Multilevel Converters	<i>Seema Akbar (SEECS, NUST & Pakistan, Pakistan); Ammar Hasan (National University of Science and Technology, Islamabad, Pakistan)</i>

	Paper S2-2	Virtual Power Quality Analyzer Emphasizing the Distortion Factor in Power Factor Calculation	<i>Malik Muhammad Zaid (University of Engineering and Technology, Lahore, Pakistan); Syed Muhammad Taqi Haider (COMSATS University Islamabad, Pakistan); Muhammad Sibtain (International Islamic University Islamabad Pakistan, Pakistan); Muhammad Usama Malik (Pakistan Institute of Engineering and Applied Sciences, Pakistan)</i>
	Paper S2-3	Performance analysis of 24/7 working environment of Switched Reluctance Motor	<i>Omer Sajid (The University of Lahore, Pakistan)</i>
	Paper S2-4	A Low-Cost Smart Load Enabler Device	<i>Muhammad Bilal Satti and Nouman Ali (National University of Science and Technology, Islamabad, Pakistan); Mian Mohammad Arsalan Asif and Abdul Hafeez Abid (National University of Science and Technology, Pakistan); Ammar Hasan (National University of Science and Technology, Islamabad, Pakistan)</i>
	Paper S2-5	An Optimal Distributed Algorithm for Best AP Selection and Load Balancing in WiFi	<i>Uferah Shafi (National University of Science and Technology (NUST), Pakistan); Muhammad Zeeshan (National University of Sciences and Technology (NUST), Pakistan); Naveed Iqbal and Nadia Kalsoom (National University of Science and Technology (NUST), Pakistan); Rafia Mumtaz (National University of Sciences and Technology, Pakistan)</i>
Session 3 Thematic Area: Ai and Machine Learning	Paper S3-1	Topic based Summarization of Multiple Documents using Semantic Analysis and clustering	<i>Rubab Hafeez (National University of Sciences and Technology, Pakistan); Sharifullah Khan (NUST School of Elctrical Engineering and Computer Science, Pakistan); Muhammad Abbas (PMAS-Arid Agriculture University, Pakistan); Fahad Maqbool (National University of Science and Technology, Pakistan)</i>
	Paper S3-2	Changing the dynamics of training by predictive modeling	<i>Mohammad Nawaz (University of North Carolina at Charlotte, USA); Mirsad Hadzikadic (UNC Charlotte, USA)</i>

	Paper S3-3	Energy Efficient Localization in Wireless Sensor Networks Using Computational Intelligence	<i>Junaid Akram, Zeeshan Najam and Haider Rizvi (National University of Sciences and Technology (NUST), Pakistan)</i>
	Paper S3-4	Solution of Economic Load Dispatch Problem by Modified Whales Optimization Algorithm	<i>Muhammad Usama Malik (Pakistan Institute of Engineering and Applied Sciences, Pakistan)</i>
	Paper S3-5	Neuron Simulation; Simulating Neuron through Agent-Based Modeling	<i>Sadaf Nadeem, Tuba Riasat, Javaria Abid and Osama Rana (NUST, Pakistan)</i>
Session 4 Thematic Area: IoT	Paper S4-1	Zigbee Based Time and Energy Efficient Smart City Parking System Using IOT	<i>Zakria Qadir (Middle East Technical University, North Cyprus Campus, Turkey); Fadi Al-Turjman (Antalya Bilim University, Turkey); Muazzam A. Khan (National University of Sciences and Technology, Pakistan)</i>
	Paper S4-2	Automatic Formal Verification of Digital Components of IoTs Using CBMC	<i>Qurat ul Ain (SEECS, NUST, Pakistan); Osman Hasan (National University of Sciences and Technology, Pakistan); Kashif Saghar (NUST (SEECS), Pakistan)</i>
	Paper S4-3	Surface Water Pollution Detection using Internet of Things	<i>Uferah Shafi (National University of Science and Technology (NUST), Pakistan); Rafia Mumtaz (National University of Sciences and Technology, Pakistan); Hirra Anwar and Ali Qamar (National University of Science and Technology (NUST), Pakistan); Hamza Khurshid (NUST School of Electrical Engineering and Computer Science, Pakistan)</i>
	Paper S4-4	Scenario-based Impediments for Intelligent Freight Transportation in Pakistan	<i>Nazam Ali (University of Management and Technology, Lahore, Pakistan); Abdur Rahim (University of Engineering and Technology, Lahore, Pakistan)</i>
	Paper S4-5	A Very Low Cost, Open, Wireless, Internet of Things (IoT) Air Quality Monitoring Platform	<i>Hammad Aamer (National University of Science and Technology & School of Electrical Engineering and Computer Sciences, Pakistan); Rafia Mumtaz (National University of Sciences and Technology, Pakistan); Hirra Anwar (National University of Science and Technology (NUST), Pakistan); Stefan Poslad (Queen Mary University of London, United Kingdom (Great Britain))</i>

<p>Session 5 Thematic Area: Wireless/Photonic</p>	<p><u>Paper S5-1</u></p>	<p>A Holistic Approach for Lifetime Prolonging and Femto Base Station's Sleeping Strategy in HetNets</p>	<p><i>Abdullah Alqasir and Ahmed E. Kamal (Iowa State University, USA)</i></p>
	<p><u>Paper S5-2</u></p>	<p>Congestion-Aware Routing Algorithm Based on Traffic Priority in Wireless Sensor Networks</p>	<p><i>Muhammad Uzair Ghazi, Syed Shahbaz Haider Naqvi, Kamran Yamin and Osama Humayun (National University of Sciences and Technology, Pakistan)</i></p>
	<p><u>Paper S5-3</u></p>	<p>Real time and Efficient Unicast Routing Protocols for Vehicular Ad Hoc Network: A Survey and Recommendations for efficiency enhancement</p>	<p><i>Abd Ullah Khan (National University of Sciences and Technology (NUST), Pakistan)</i></p>
	<p><u>Paper S5-4</u></p>	<p>End to End Latency incurred in Cooperative Communication System</p>	<p><i>Syed Asad Ali (DHA Suffa University Karachi, Pakistan); Gul Shahzad (DHA Suffa University, Pakistan); Fahim Umrani (Mehran University of Engineering and Technology, Pakistan)</i></p>
	<p><u>Paper S5-5</u></p>	<p>A Self-Adaptive Superframe Structure for Emergency Traffic Based IEEE 802.15.6</p>	<p><i>Asad Khan, Shujaat Ali and Dilawar Shah (Bacha Khan University, Pakistan); Arshad Farhad (Chosun University, South Korea, Korea)</i></p>
	<p><u>Paper S5-6</u></p>	<p>Design and Modeling of VTOL Tri Tilt-rotor Aircraft</p>	<p><i>Muhammad Umer, Syed Mohsin Abbas Kazmi and Syed Muhammad Hassan Askari (NUST-SECS, Pakistan); Iftikhar Ahmad Rana (School of Electrical Engineering and Computer Science, NUST, Pakistan)</i></p>