

## **NUSYS 2020: TENTATIVE**

### **Venue for Opening Ceremony and Keynote Speaker Sessions**

#### **Room 1:**

<https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWhvbU9HS1lEWWxmRjJScz09>

**Meeting ID:** 953 5871 7150

**Passcode:** 241120

#### **Tuesday: 24<sup>th</sup> November 2020**

<b>Time (Malaysia)</b>	<b>Programme</b>
08:45 – 09:15	Registration
09:15 – 10:00	<b>Opening Ceremony</b> Opening Remarks by <b>Prof. Ir. Ts. Dr. Mohd Rizal Arshad</b> Past Chair of IEEE OES Malaysia Chapter and Advisor of NUSYS'20  <b>Session Chair:</b> <u>Ts. Dr. Khalid Isa</u>
10:00 – 11:00	<b>Keynote Speaker Session I</b> <b>Prof. Dr. Norimitsu Sakagami</b> Founder of Sakagami Laboratory, Tokai University, Shizuoka, Japan  <b>Title:</b> <i>Negative pressure effect plate (NPEP) and Haptic Shared Control (HSC) for Underwater Vehicles</i>  <b>Session Chair:</b> <u>Ts. Dr. Khalid Isa</u>
11:00 – 12:00	<b>Keynote Speaker Session II</b> <b>Dr. Ouzani Bachir</b> Geohazards Analyst, Offshore Professionals Sdn. Bhd.  <b>Title:</b> <i>Autonomous Underwater Vehicle Technology in Gallops</i>  <b>Session Chair:</b> <u>Assoc. Prof. Dr. Mohd Shahrieel Mohd Aras</u>
12:00 – 14:00	Lunch Break
14:00 – 16:45	<b>Parallel Session I</b> (3 break-up rooms)
16:45	End Day 1

#### **Wednesday: 25<sup>th</sup> November 2020**

<b>Time (Malaysia)</b>	<b>Programme</b>
08:30 – 10:15	<b>Parallel Session II</b> (2 break-up rooms)
10:15 – 11:15	<b>Keynote Speaker Session III</b> <b>Assoc. Prof. Ir. Dr. Rosmiwati Mohd Mokhtar</b> Secretary of IEEE Malaysia Section and Programme Chair (Mechatronics Engineering) School of Electrical and Electronic Engineering, USM  <b>Title:</b> <i>Model order reduction techniques: An approach to a stable and unstable dynamical system</i>  <b>Session Chair:</b> <u>Dr. Herdawatie Abdul Kadir</u>
11:15 – 13:00	<b>Parallel Session III</b> (3 break-up rooms)
13:00 – 14:00	Lunch Break
14:00 – 16:30	<b>Parallel Session IV</b> (3 break-up rooms)
16:30	End

NUSYS'20: PARALLEL SESSION DETAILS

Parallel Session I

Date: 24 November 2020 (Tuesday)

Time: 2:00pm - 4:45pm (Malaysia Time)

<p><a href="https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWVhbU9HS1E1WVxmRjJSdz09">https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWVhbU9HS1E1WVxmRjJSdz09</a>  <b>Room 1 - Applied Electronics and Computer Engineering</b>  <b>Meeting ID:</b> 953 5871 7150  <b>Passcode:</b> 241120  <b>Chair:</b> Assoc. Prof. Dr. Nabilah Ibrahim  <b>Co-Chair:</b> Dr. Herdawatie Abdul Kadir</p>	<p><a href="https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWVhpN053NTU0aiNlUWtVaCtKdz09">https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWVhpN053NTU0aiNlUWtVaCtKdz09</a>  <b>Room 2 - Control, Instrumentation and Artificial Intelligent Systems</b>  <b>Meeting ID:</b> 954 8812 4538  <b>Passcode:</b> 241120  <b>Chair:</b> Dr. Mohd Nadhir Ab Wahab  <b>Co-Chair:</b> Assoc. Prof. Dr. Syed Saad Azhar Ali</p>	<p><a href="https://uthm-edu-my.zoom.us/j/92597227111?pwd=aVVhWW5XZ1lXdfRDL2xpVnZ6ZDE2QT09">https://uthm-edu-my.zoom.us/j/92597227111?pwd=aVVhWW5XZ1lXdfRDL2xpVnZ6ZDE2QT09</a>  <b>Room 3 - Power Systems and Sustainable Energy</b>  <b>Meeting ID:</b> 925 9722 7111  <b>Passcode:</b> 241120  <b>Chair:</b> Assoc. Prof. Dr. Mohd Herwan Sulaiman  <b>Co-Chair:</b> Assoc. Prof. Dr. Mohd Shahrieel Mohd Aras</p>
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No.	Start	End	Paper ID	Authors, Title	Paper ID	Authors, Title	Paper ID	Authors, Title
1	14:00	14:15	11	Nabilah Binti Ibrahim, Akmal Hafiz Jamhari and Nor Azizah Marzuki. <i>Vision Aids for Colour Deficiency in Development of Contactless Colour Recognition Device</i>	12	Mohd Nadhir Ab Wahab, Sheik Chi Tay, Abdul Syafiq Abdull Sukor, Ahmad Sufril Azlan Mohamed and Manmeet Kaur Mahinderjit Singh. <i>Smart Waste Management System for Household</i>	4	Mohd Herwan Sulaiman, Zuriani Mustaffa, Omar Aliman, Mohd Mawardi Saari and Ahmad Johari Mohamad. <i>Solving combined economic and emission load dispatch using cohesive meta-heuristic approach</i>
2	14:15	14:30	13	Mohamad Hafiz Ahmad, Nurul Amierah Cheah Yasser Cheah and Mohamad Tarmizi Bin Seman. <i>Embedded RFID System: OKU Smart Parking</i>	17	Fakhitah Ridzuan, Wan Mohd Nazmee Wan Zainon and Mohd Zairul. <i>A Thematic Review on Data Quality Challenges and Dimension in the Era of Big Data</i>	10	Wan Mustafa and M. Saifizi. <i>Harmonic Elimination Simulation of Seven Level Cascaded H-bridge Inverter Based on Newton Raphson Method</i>
3	14:30	14:45	14	Mohammed K. Al-Obaidi, Noorsaliza Abdullah, Samsul Haimi Dahlan and Ezri Mohd. <i>Microstrip Lens Formulation and Analysis: Comprehensive Study</i>	19	Masoud Vazifekkhahi, Tohid Yousefi Rezaii and Ali Farzamniah. <i>Recursive Dictionary Learning Approach Exploiting between-channel Correlations for EEG Signal Recon-struction</i>	35	Mohd Shawal Jadin, Abdul Hadi Bin Mohd Hanif, Norizam Sulaiman, Airul Sharizli Abdullah and Lee Woan Jun. <i>Improving the Effect of Non-Uniform Thermal Distribution and Electrical Mismatch for PV Panel During Partial Shading Condition</i>
4	14:45	15:00	18	Kok Yeow You, Yeng Seng Lee, Kim Yee Lee and Ee Meng Cheng. <i>Development of CAD for Microwave Hybrid Branch-Line Coupler Design Using MATLAB-Based GUI</i>	20	Sania Eskandari, Saeed Meshgini and Ali Farzamniah. <i>Using a Novel Algorithm in Ultrasound Images to Detect Renal Stones and Comparison with Two Common Methods for This Purpose</i>	39	Clarence Rimong Jawa, Siti Amely Jumaat and Molzairy Yahya. <i>Identify the Potential of Food Waste in Batu Pahat, Johor, Malaysia for Electricity Production using Artificial Neural Network (ANN)</i>
5	15:00	15:15	25	Aeizaal Azman Abdul Wahab. <i>Paper Reduction of OFDM System Using Selective Mapping (SLM) And Firefly Algorithm (FA)</i>	21	Ngu War Hlaing, Ali Farzamniah, Manas Kumar Haldar and Tohid Yousefi Rezaii. <i>BER Analysis of SIMO and MIMO systems with Rayleigh fading using SIMULINK</i>	43	Umar Abubakar Saleh, Ya'U Shuaibu Haruna, Sani Mohammed Isa and Siti Amely Jumaat. <i>Statistical Evaluation of Wind Speed Data for Power Generation at Anyigba, Kogi State, Nigeria</i>
6	15:15	15:30	31	Nabilah Binti Ibrahim, Leong Kok Liang, Leong Zi Zheng, Lim Yu Ling, Khairul Hafizzuddin Khairulbadri and Mazita Mohamad. <i>Visualization of Hand Vein using Raspberry Pi Images in Contactless Vein Detector</i>	22	Ngu War Hlaing, Ali Farzamniah, Ye Zelee Lee Hou Yong Bin Roger, Manas Kumar Haldar and Tohid Yousefi Rezaii. <i>Investigation on Methods of Reducing High Peak-to-Average Power Ratio in MIMO-OFDM</i>	52	Deni S. Khaerudini, Sagir Alva and Triyanto Pangaribowo. <i>A Strategy to Enhance the Hydrolytic and Kinetic Reactions of Aluminium Scrap Waste for Rapid Hydrogen Generation</i>
7	15:30	15:45	37	Othman O. Khalifa, Nurul Hazirah Mohd Halid and Noreha Abd Malik. <i>Development of An Image Enhancement method for Android applications</i>	23	Ngu War Hlaing, Ali Farzamniah, Frydoreen Masmin, Manas Kumar Haldar and Tohid Yousefi Rezaii. <i>Performance Analysis of OFDM Channel Estimation Under IQ Imbalance</i>	69	Ibrahim Shanono, Nor Rul Hasma Abdullah, Nur Fajrina Binti Mohd Noh and Aisha Muhammad. <i>Distribution Network Reconfiguration for Transmission Loss Minimization and Voltage Profile Improvement using Salp Swarm Optimization Algorithm</i>
8	15:45	16:00	38	Othman O. Khalifa, Safiyah Hasmad and Noreha Abd Malik. <i>Speech Dreverberation Enhancement</i>	44	Ayad Kwad, Dirman Hanafi, Rosli Omar and Hisyam Abdul Rahman. <i>Online Nonlinear Series-parallel Hammerstein Model For Bi-directional DC Motor</i>		
9	16:00	16:15	40	Othman Khalifa, Azri A. Marzuki, Noreha Abd Malik and Mohammad H. Hassan Gani. <i>Traffic Congestion Detection for Smart and Control Transportation Management</i>				
10	16:15	16:30	45	Syed Muhamad Akid Syed Zainal Abidin, Haryati Jaafar and Lee Yeng Seng. <i>Home Service Robot based on Image Recognition System</i>				
11	16:30	16:45	60	Yeng Seng Lee, Kok Yeow You and Fwen Hoon Wee. <i>A Review of Agricultural Product Characterization using Microwave Sensor</i>				

**Parallel Session II**

**Date:** 25 November 2020 (Wednesday)

**Time:** 8:30am - 10:15am (Malaysia Time)

<p><b>Room 1 - Underwater Technology and Marine</b></p> <p><a href="https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWVhbU9HS1E1WWxmRiJSdz09">https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWVhbU9HS1E1WWxmRiJSdz09</a>  <b>Meeting ID:</b> 953 5871 7150  <b>Passcode:</b> 241120  <b>Chair:</b> Ms. Inani Yusra Amran  <b>Co-Chair:</b> Ts. Dr. Khalid Isa</p>	<p><b>Room 2 - Underwater Technology and Marine/Unmanned Systems</b></p> <p><a href="https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWVhpN053NTU0aiNjUWtVaCtKdz09">https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWVhpN053NTU0aiNjUWtVaCtKdz09</a>  <b>Meeting ID:</b> 954 8812 4538  <b>Passcode:</b> 241120  <b>Chair:</b> Mr. Muhamad Muzakkir Mohd Nadzri  <b>Co-Chair:</b> Assoc. Prof. Dr. Ahmad Anas Yusof</p>
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No.	Start	End	Paper ID	Authors, Title	Paper ID	Authors, Title
1	8:30	8:45	1	Mohd Bazli Bahar, Mohd Shahrieel Mohd Aras, Shahrum Shah Abdullah, Sin San Ng, Zainah Md Zain, Ahmad Anas Yusof and Mohd Zaidi Mohd Tumari. <i>Design and Development of Spherical Amphibian Vehicle (SAV)</i>	108	Muhamad Muzakkir Mohd Nadzri and Afandi Ahmad. <i>Design Issues and Challenges of Long-Range Ultrasonic Testing (LRUT) for Pipeline Inspection</i>
2	8:45	9:00	15	Inani Yusra Amran and Khalid Isa. <i>Modelling Analysis of a Bio-Inspired Triangular Underwater Robot for Aquaculture Biofouling Cleaning</i>	112	Ahmad Anas Yusof, Bin Mohamed Nor Mohd Khairi and Mohd Shahrieel Mohd Aras. <i>Installation and Testing for Wireless Control and Communication Capability for DugongBot 2.0</i>
3	9:00	9:15	16	Inani Yusra Amran and Khalid Isa. <i>Modelling Analysis of Spherical Underwater Robot for Aquaculture Biofouling Cleaning</i>	117	Ahmad Anas Yusof, Bin Mohamed Nor Mohd Khairi, Mohd Shahrieel Mohd Aras and Shamsul Anuar Shamsudin. <i>A Practical Open-Source Evaluation Platform for Underwater Drone</i>
4	9:15	9:30	46	Md Rabiul Awal, Muzammil Jusoh, Shakir Saat, Nurul Adilah Abdul Latiff, Nurafnida Afrizal and Salisa Abdul Rahman. <i>Acoustic Waves Propagation in Seawater Using Low Profile Multiple Obstacles</i>	120	Siti Nazurah Md Yusof, Herdawatie Abdul Kadir, Khalid Isa and Radzi Ambar. <i>An Analysis of Acoustics Fish Surveys Module for Autonomous Underwater Vehicle (AUV)</i>
5	9:30	9:45	79	Mohd Bazli Bahar, Shahrum Shah Abdullah, Mohd Shahrieel Mohd Aras and Fauzal Naim Zohedi. <i>Spherical Amphibian Robot Design with Novel Driving Principle</i>	121	Abdul Hakim Omar, Herdawatie Abdul Kadir and Mohd Rizal Arshad. <i>An Analysis of Energy Harvesting System for Ocean Data Acquisition System (ODAS) Buoy</i>
6	9:45	10:00	97	Afiza Jaafar, Hajar Ja' Afar, Idris Pasya Ibrahim, Yoshihide Yamada and Rina Abdullah. <i>Overview of Underwater Communication Technology</i>	48	Ali Olow Jimale, Wan Mohd Nazmee Wan Zainon and Yunis Ali Ahmed. <i>Deaf-Blind- Dysgraphia Communication Technique for Disabled Students Using Speech-To-Text And Text-To-Speech Technologies</i>
7	10:00	10:15	127	Mazyah Mat-Noh, Mohd Rizal Arshad and Rosmiwati Mohd-Mokhtar. <i>Robust Nonlinear Control of a Buoyancy-driven Airship System using Backstepping Integral Sliding Mode Control</i>	89	Nur Nabila Husna Mohd Sahabuddin, Norhidayah Mohamad Yatim, Zarina Mohd Noh and Norfariza Ab Wahab. <i>Performance Analysis of Particle Filter Localization Algorithm for Mobile Robot</i>

Parallel Session III

Date: 25 November 2020 (Wednesday)

Time: 11:15am - 1:00pm (Malaysia Time)

<p><a href="https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWhvbU9HS1E1EWxmrRjJSdz09">https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWhvbU9HS1E1EWxmrRjJSdz09</a></p> <p>Room 1 - Applied Electronics and Computer Engineering</p> <p><b>Meeting ID:</b> 953 5871 7150 <b>Passcode:</b> 241120</p> <p><b>Chair:</b> Dr. Noreha Abdul Malik <b>Co-Chair:</b> Assoc. Prof. Dr. Ahmad Faisal Mohamad Ayob</p>	<p><a href="https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWhpN053NTU0ajNlUWtVaCtKdz09">https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWhpN053NTU0ajNlUWtVaCtKdz09</a></p> <p>Room 2 - Control, Instrumentation and Artificial Intelligent Systems</p> <p><b>Meeting ID:</b> 954 8812 4538 <b>Passcode:</b> 241120</p> <p><b>Chair:</b> Mr. Anbia Adam <b>Co-Chair:</b> Dr. Maziyah Mat Noh</p>	<p><a href="https://uthm-edu-my.zoom.us/j/92597227111?pwd=aVVhWW5XZ1IXdFRDL2xpWnZ6ZDE2QT09">https://uthm-edu-my.zoom.us/j/92597227111?pwd=aVVhWW5XZ1IXdFRDL2xpWnZ6ZDE2QT09</a></p> <p>Room 3 - Power Systems and Sustainable Energy</p> <p><b>Meeting ID:</b> 925 9722 7111 <b>Passcode:</b> 241120</p> <p><b>Chair:</b> Dr. Amir Izzani Mohamed <b>Co-Chair:</b> Ir. Dr. Zool H. Ismail</p>
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1	11:15	11:30	41	Othman Khalifa, Hazwani Bt Abdul Khodir, Noreha Abdul Malik and Norun Fariah Abdul Malek. <i>Video-Based Abnormal Behaviour Detection in Smart Surveillance Systems</i>	63	Anbia Adam, Yusri Yusof, Kamran Latif, Aini Zuhra Abdul Kadir, Toong-Hai Sam and Danish Ali. <i>Development of a Novel Open Platform Controller Machining Module For 3-Axis CNC Milling Machine</i>	82	Amir Izzani Mohamed, Mohd Razali Daud, Mohd Herwan Sulaiman, Ahmad Afif Mohd Faudzi, Norlin Pauzi and Mohamad Kamarol Mohd Jamil. <i>Inactivation of mucose on bread by using plasma jet</i>
2	11:30	11:45	42	Maryam J. S. Emashharawi, Othman Khalifa and Noreha Abdul Malik. <i>Computer Vision Based Driver Assistance Drowsiness Detection</i>	65	Duc Chung Tran, Duc Long Nguyen, Hong Son Ha and Mohd Fadzil Hassan. <i>Speech Recognizing Comparisons between Web Speech API and FPT.AI API</i>	83	Md Rabiul Awal, Muhammad Syarifuddin Yahya, R Badlisah Ahmad, Mohd Zamri Ibrahim, Ahmad Nazri Dagang and Mohd Fairuz Affandi Aziz. <i>Hot Spots Identification for Global Solar Energy Potential: A Future Perspective</i>
3	11:45	12:00	49	Abdulrahman Ahmed Ghaleb Amer, Syarfa Zahirah Sapuan and Nasimuddin Nasimuddin. <i>Multi-band Metasurface Microwave Absorber Based on Square Split-Ring Resonator Structure</i>	66	Koon Meng Ang, Wei Hong Lim, Sew Sun Tiang, Chun Kit Ang, Elango Natarajan and Mka Ahamed Khan. <i>Optimal Training of Feedforward Neural Networks using Teaching-Learning-Based Optimization with Modified Learning Phases</i>	86	Shamsul Aizam. <i>Comparison on Online and Offline Power Converter Simulation using Low Cost Microcontroller for Active Power Filter</i>
4	12:00	12:15	50	Humaira Nisar and Kit Hwa Cheah. <i>Classification of Music-Induced Mental States using Convolutional Neural Networks for: A Study based on 14-channel EEG</i>	67	Wan Azani Wan Mustafa, M.A. M. Nawi and Mohd Sharizan Md Sarip. <i>Effect of Nozzle Diameter on Temperature Behavior in Spray Dryer via Computational Fluid Dynamics</i>	90	Wan Ismail Ibrahim. <i>The Potential of Hydrokinetic Energy Harnessing in Pahang River Basin</i>
5	12:15	12:30	57	Z. H. Husin, N. S. A. M. Taujuddin and S. Sari. <i>Bacterial Leaf Blight (BLB) Detection using Hue, Saturation, Value (HSV) Band Threshold Method</i>	68	Wan Azani Wan Mustafa, Mohd Al-Hafiz Mohd Nawi and Mohd Sharizan Md Sarip. <i>Influence of Nozzle Diameter Towards Velocity Distribution in Spray Dryer via Computational Fluid Dynamics</i>	101	Norazila Jaalam. <i>Current Limiter Strategy of Grid-connected PV System for LVRT enhancement</i>
6	12:30	12:45	58	Aravind Vivekanandan and Arun Kumar Shanmugam. <i>Feature Transformation through Stacked Autoencoder for Diabetes Classification</i>	84	Bakiss Hiyana Abu Bakar and Hamzah Ahmad. <i>Filter with Fuzzy Logic estimation: An analysis to refrain Finite Escape Time (FET)</i>	122	Ahmad Syafiq Deraman. <i>Study of Trapezoidal Flexible Horizontal Piezoelectric Cantilever Beam Based on ANSYS</i>
7	12:45	13:00	70	Nazmus Sakib, S. Noorjannah Ibrahim, Muhammad Ibn Ibrahimy, S. Yasmin Mohamad and M. M. Hasan Mahfuz. <i>Design a CPW Antenna on Rubber Substrate for Multi-band Applications</i>				

**Parallel Session IV**

**Date:** 25 November 2020 (Wednesday)

**Time:** 2:00pm - 4:30pm (Malaysia Time)

<p><a href="https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWhvbU9HS1E1EWtWmRjSdz09">https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWhvbU9HS1E1EWtWmRjSdz09</a>  <b>Room 1 - Applied Electronics and Computer Engineering</b>  <b>Meeting ID:</b> 953 5871 7150  <b>Passcode:</b> 241120  <b>Chair:</b> Dr. Nur Nabilah Abu Mangshor  <b>Co-Chair:</b> Dr. Zainah Md. Zain</p>	<p><a href="https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWVhN053NTU0aiNlUWtVaCtKdz09">https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWVhN053NTU0aiNlUWtVaCtKdz09</a>  <b>Room 2 - Applied Electronics and Computer Engineering</b>  <b>Meeting ID:</b> 954 8812 4538  <b>Passcode:</b> 241120  <b>Chair:</b> Mr. Ibrahim Al-Amuodi  <b>Co-Chair:</b> Dr. Radzi Ambar</p>	<p><a href="https://uthm-edu-my.zoom.us/j/92597227111?pwd=aVhWW5XZ1lXdFRDL2xpWnZ6ZDE2QT09">https://uthm-edu-my.zoom.us/j/92597227111?pwd=aVhWW5XZ1lXdFRDL2xpWnZ6ZDE2QT09</a>  <b>Room 3 - Control, Instrumentation and Artificial Intelligent Systems</b>  <b>Meeting ID:</b> 925 9722 7111  <b>Passcode:</b> 241120  <b>Chair:</b> Mr. Ahmad Azwan Abdul Razak  <b>Co-Chair:</b> Assoc. Prof. Ir. Dr. Rosmiwati Mohd Mokhtar</p>
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No.	Start	End	Paper ID	Authors, Title	Paper ID	Authors, Title	Paper ID	Authors, Title
1	14:00	14:15	32	Nur Nabilah Abu Mangshor, Nurul Paudziah Aida Mohd Paudzi, Shafaf Ibrahim and Nurbaity Sabri. <i>A Real-Time Malaysian Traffic Sign Recognition Using YOLO Algorithm</i>	107	Ibrahim Al-Amuodi, Rosdiyana Samad, Nor Rul Hasma Abdullah, Mahfuzah Mustafa and Dwi Pebrianti. <i>Automatic Attendance System using Face Recognition with Deep Learning Algorithm</i>	91	Ahmad Azwan Abdul Razak, Ahmad Nor Kasruddin Nasir, Nor Maniha Abdul Ghani, Shuhairie Mohammad, Mohd Falfazli Mat Jusof and Nurul Amira Mhd Rizal. <i>Quasi Oppositional-based Manta Ray Foraging Optimization for Faster Convergence Speed and Better Accuracy and The Application to PID-Controller of an Inverted Pendulum System</i>
2	14:15	14:30	74	Nur Nabilah Abu Mangshor, Fatin Nur Afiqa Yazid, Nurbaity Sabri, Shafaf Ibrahim, Nur Farahin Mohd Johari, Siti Nazifah Zainol Abidin and Salehah Hamzah. <i>Driver's Fatigue and Drowsy Expression Recognition using Shape Features and Support Vector Machine</i>	109	P.A.A. Avirachmi Gresy Narwati, Abd Kadir Mahamad and Sharifah Saon. <i>Automated Door Accessing System with Face Recognition and NFC</i>	96	F. S. Gideon, N. M. Tahir, U. I. Bature, A. Y. Zimit, A. Abubakar and M. Ahmed. <i>Autonomous Lane Navigation: Using Hand-Coded Method and Deep Learning Method</i>
3	14:30	14:45	78	Mohd Ali Mat Nong, Juraina Md Yusof, Suzila Sabil, Roslina Mohd Sidek and Rosiah Osman. <i>Histogram analysis with MATLAB Software for motorcycle image processing</i>	110	Mohd Najmi Tahir, Abd Kadir Mahamad Mahamad and Sharifah Saon. <i>Machine Remaining Useful Life (RUL) Prediction Based on Particle Swarm Optimization (PSO)</i>	100	Nur Rodiatul Raudah Mohamed Radzuan, Haryati Jaafar and Aimi Saliyah Abdul Nasir. <i>An Identification of Aspergillus Species: A Comparison on Supervised Classification Methods</i>
4	14:45	15:00	80	Shamsiah Suhaili, Rene Brooke Fredrick, Zainah Md. Zain and Julai Norhuzaimin. <i>Design and Implementation of Advanced Encryption Standard using Verilog HDL</i>	114	Norizam Sulaiman, Nuraini Ismail, Nahidul Islam, Mamunur Rashid, Mohd Shawal Jadin, Mahfuzah Mustafa and Fahmi Samsuri. <i>Development of EEG-Based System to Identify Student Learning Attention Ability</i>	102	Nurul Najihah Zulkifli, Mohd Syakirin Ramli, Hamzah Ahmad and Addie Irawan. <i>Model-Free State Feedback Controller Tuning for A Liquid Slosh Suppression System</i>
5	15:00	15:15	81	Shamsiah Suhaili, Cleopatra Chundang Anak Niam, Zainah Md. Zain and Norhuzaimin Julai. <i>Design and Implementation of MD5 Hash Function Algorithm Using Verilog HDL</i>	115	Koon Chun Lai, Josef Schaetz, Tobias Greisinger and Kim Ho Yeap. <i>Design of a Compact Dual-band Antenna for WLAN Applications</i>	105	Maziatun Mohamad Mazlan, Nur Aqilah Othman and Hamzah Ahmad. <i>Improving Covariance Matrix Diagonalization in SLAM of Mobile Robot</i>
6	15:15	15:30	85	Azian Azamimi Abdullah, Nurul Amirah Ahmad Kamardin and Wan Khairunizam. <i>Development of Computer Aided System for Classification of Gastrointestinal Lesions</i>	118	Muhd Hafizrah Jairan, Jeanne Yee Jing Leong, Aiman Farhan Mohd-Foazi, Wan Amir Fuad Wajidi Othman, Aeizaal Azman A. Wahab and Syed Sahal Nazli Alhady. <i>Development of a Mini Pole-Climbing</i>	113	Kai Xian Ong and Rosmiwati Mohd Mokhtar. <i>Emergency Tool Kits Monitoring System</i>
7	15:30	15:45	87	Suhaila S., Low Z. Y., Taujuddin N.S.A.M, Hazli R., Ghani A.R.A and Nan M. Sahar. <i>Image Segmentation Module Development for Image Processing Learning Mobile Application</i>	125	Dhurgham Abdulridha Kadhim, Abd Kadir Mahamad Mahamad, Nik Shahidah Afifi Taujuddin, Umi Fadlilah and Sharifah Saon. <i>Implementation and Testing of Proposed Campus Network</i>	116	Redza Akbar Ali Hussain and Rosmiwati Mohd Mokhtar. <i>Development of A Logistics Autonomous Mobile Robot (EasyBot)</i>
8	15:45	16:00	88	Norizam Sulaiman, Md Nahidul Islam, Mamunur Rashid, Mahfuzah Mustafa, Mohd Shawal Jadin and Md Jahid Hasan. <i>Investigation on Auditory Evoked Potentials Response in Detecting Human Hearing Disorder</i>	126	Tommy Teh Kim Seong, Chew Chang Choon and Radzi Ambar. <i>Sena Traffic Controller System using Moru D Firmware</i>	119	Ahmad Nor Kasruddin Nasir, Mohd Falfazli Mat Jusof and Ahmad Azwan Abd Razak. <i>Adaptive-Somersault MRFO for Global Optimization with an Application to Optimize PD Control</i>
9	16:00	16:15	95	Kung Chuang Ting, Kim Ho Yeap, Peh Chiong Teh and Koon Chun Lai. <i>Bit-levels Encryption for RGB Telescope Images</i>	130	Mohd Aminudin Jamlos and Yeng Seng Lee. <i>Perpendicular High Isolation MIMO Antenna</i>		
10	16:15	16:30	104	Wan Azani Wan Mustafa and M. Saifizi. <i>Black Box Modelling of Infrared Drying System for Herbs Dehydration</i>	131	Mohd Aminudin Jamlos and Yeng Seng Lee. <i>2x1 Circularly Polarized Rectangular Microstrip Patch Array Antenna</i>		

## **NUSYS'20: PARALLEL SESSIONS SUMMARY**

Room 1:

<https://uthm-edu-my.zoom.us/j/95358717150?pwd=cWUrTnRHQWhvbU9HS1lEWWxmRjJSdz09>

Meeting ID: 953 5871 7150

Passcode: 241120

Room 2:

<https://uthm-edu-my.zoom.us/j/95488124538?pwd=OVdXVWhpN053NlU0ajNJUWtVaCtKdz09>

Meeting ID: 954 8812 4538

Passcode: 241120

Room 3:

<https://uthm-edu-my.zoom.us/j/92597227111?pwd=aVVhWW5XZ1lXdlFRDL2xpWnZ6ZDE2QT09>

Meeting ID: 925 9722 7111

Passcode: 241120

### **Tuesday: 24th November 2020**

#### **Parallel Session I**

Start	End	ROOM 1	ROOM 2	ROOM 3
14:00	14:15	11	12	4
14:15	14:30	13	17	10
14:30	14:45	14	19	35
14:45	15:00	18	20	39
15:00	15:15	25	21	43
15:15	15:30	31	22	52
15:30	15:45	37	23	69
15:45	16:00	38	44	
16:00	16:15	40		
16:15	16:30	45		
16:30	16:45	60		

**End Day 1**

### **Wednesday: 25th November 2020**

#### **Parallel Session II**

Start	End	ROOM 1	ROOM 2	ROOM 3
08:30	08:45	1	108	
08:45	09:00	15	112	
09:00	09:15	16	117	
09:15	09:30	46	120	
09:30	09:45	79	121	
09:45	10:00	97	48	
10:00	10:15	127	89	

#### **KEYNOTE SESSION III**

##### **Parallel Session III**

Start	End	ROOM 1	ROOM 2	ROOM 3
11:15	11:30	41	63	82
11:30	11:45	42	65	83
11:45	12:00	49	66	86
12:00	12:15	50	67	90
12:15	12:30	57	68	101
12:30	12:45	58	84	122
12:45	13:00	70		

#### **LUNCH BREAK**

##### **Parallel Session IV**

Start	End	ROOM 1	ROOM 2	ROOM 3
14:00	14:15	32	107	91
14:15	14:30	74	109	96
14:30	14:45	78	110	100
14:45	15:00	80	114	102
15:00	15:15	81	115	105
15:15	15:30	85	118	113
15:30	15:45	87	125	116
15:45	16:00	88	126	119
16:00	16:15	95	130	
16:15	16:30	104	131	

**End**

Underwater Technology and Marine / Unmanned System
Applied Electronics and Computer Engineering
Sustainable Energy and Power Engineering
Control, Instrumentation and Artificial Intelligent Systems