

ICWT 2021 CONFERENCE PROGRAM

THURSDAY, 19 AUGUST 2021		
09.00-09.30	REGISTRATION	
09.30-10.00	OPENING CEREMONY Venue: Hotel Horison Green Forest	
	PARALLEL SESSIONS 1	
	Room 1	Room 2
10.00-12.00	Information System and Software Engineering	
12.00-13.00	LUNCH BREAK	
	PARALLEL SESSIONS 2	
	Room 1	Room 2
13.00-15.20	Internet-of-Things and Networked Systems	Artificial Intelligence and Advance Programming
15.20-15.40	COFFEE BREAK	
	PARALLEL SESSIONS 3	
	Room 1	Room 2
15.40-18.20	Internet-of-Things and Networked Systems	RF Devices and Communication Systems
FRIDAY, 20 AUGUST 2021		
08.00-08.20	REGISTRATION	
	PARALLEL SESSIONS 4	
	Room 1	Room 2
08.20-10.40	Simulation, Modelling, Performance, and Measurement	Simulation, Modelling, Performance, and Measurement
12.00-13.00	LUNCH BREAK	
	PARALLEL SESSIONS 5	
	Room 1	Room 2
13.00-15.20	Education	
15.20-15.40	COFFEE BREAK	
	PARALLEL SESSIONS 6	
	Room 1	Room 2
15.40-18.00	Wireless and Telematics Systems	Wireless and Telematics Systems

PARALLEL SESSIONS 1
Information System and Software Engineering
Thursday, 19 August 2021 10.00-12.00 (Room 1)

PaperID	Title	Authors	Time	#
070204	Augmented Reality using Natural Feature Tracking Method to Introduce Science Verses in Qur'an	Dian Sa'adillah Maylawati, Khusnul Khotimah, Diena Rauda Ramdania, Muhammad Ali Ramdhani, Yana Aditia Gerhana, Mohamad Irfan, Rosihon Anwar	10.00-10.20	4
070212	A DApp Architecture for Personal Lending on Blockchain	Wisnu Uriawan, Cepy Slamet, Agung Wahana, and Vemy Suci Asih	10.20-10.40	12
070224	Web Crawler Development to Optimize the Sentiment Analysis Process of Indonesian News Article Opinions	Ichsan Budiman, Muhammad Deden Firdaus, Muhaman Insan Al-amin, Eva Nurlatifah, Jumadi	10.40-11.00	24
070225	Decision Support System for Neglected Elderly Social Assistance Recipients Using Weighted Products	Abraham Dwi Kurniawan, Diena Rauda Ramdania, Beki Subaeki, Cepi Slamet, Muhammad Insan Al-Amin, Gitarja Sandi	11.00-11.20	25
070238	The Study of Telescop And E-Tara: Online Application For Detecting The Authentic And Fraud Divorce Certificates In Religious Court	Ramdani Wahyu Sururie Lia Kamelia Yoghi Arief Susanto Regina Maurizka Rifada	11.20-11.40	38

PaperID	Title	Authors	Time	#
070274	Development of Intelligent Telegram Chatbot using Natural Language Processing	Teddy Surya Gunawan, Asaad Balla Falelmula Babiker, Nanang Ismail, Mufid Ridlo Effendi	11.40-12.00	74

PARALLEL SESSIONS 2
Internet-of-Things and Networked Systems
Thursday, 19 August 2021 13.00-15.20 (Room 1)

PaperID	Title	Authors	Time	#
070330	IoT Monitoring System for Solar Power Plan Based on MQTT Publisher/Subscriber Protocol	Januar Muhamad Ramadhan, Rina Mardiaty and Irsyad Nashirul Haq	13.00-13.20	30
070234	Design of Automatic Watergate System Using ESP32 Microcontroller Based on Fuzzy Logic Method	Fadhilah Rama, Rina Mardiaty, Edi Mulyana, Ah Fathonih	13.20-13.40	34
070237	DESIGN OF VOLTAGE AND FLOW MONITORING SYSTEM FOR PJU-TS USING THE INTERNET OF THINGS (IoT)	Agi Sahrul Pradana, Adam Faroqi, Edi Mulyana and Fauzan Ali Rasyid	13.40-14.00	37
070239	The Prototype of Smart Garden Fertigation System with Solar Photovoltaic System Based on IoT	Reno Muhammad Fadilla Nabila Safitri Dwi Oktafiandini Muhitha Adha Lia Kamelia Dendih Fredi Firdaus Akmaliyah	14.00-14.20	39

PaperID	Title	Authors	Time	#
070241	IoT-Based Battery Monitoring System in Solar Power Plants with Secure Copy Protocol (SCP)	Mufid Ridlo Effendi	14.20-14.40	41
070242	Growth Monitoring System and Automatic Watering for Chili Plants Based on Internet of Things	Dzulfikri Hanafi, Rina Mardiaty, Toni Prabowo and Cecep Hidayat	14.40-15.00	42
070347	A Systematic Literature Review on IoT-based Smart Grid	Nike Sartika, Yuda Sukmana, Mufid Ridlo Effendi, Iu Rusliana, Khomisah, Yuyun Yuningsih	15.00-15.20	47

PARALLEL SESSIONS 2
Artificial Intelligence and Advance Programming
Thursday, 19 August 2021 13.00-15.20 (Room 2)

PaperID	Title	Authors	Time	#
070207	A Deep Learning Approach To Analyze The Sentiment Of Online Game Users	Agung Wahana, Wildan Budiawan Zulfikar, Wildan Najah Wildiansyah, Aldy Rialdy Atmadja, Diena Rauda Ramdania, Beki Subaeki	13.00-13.20	7
070210	Expert System to Detect Social Anxiety in Student using the Rule-based Reasoning Method	Cepy Slamet, Nida Maria Ulfah, Dian Sa'adillah Maylawati, Rachmat Jaenal Abidin, Khaerul Manaf, Rosleny Marliani	13.20-13.40	10
070913	Text Summarization using TextRank for Knowledge Externalization from Indonesian Online Discussion Forums	Yana Aditia Gerhana, Ichsan Taufik, Raka Iqbal Syamsuddin, Undang Syaripudin, Titik Khawa Abdul Rahman, Muhammad Ali Ramdhani, Dian Sa'adillah Maylawati	13.40-14.00	13
070215	Topic Clusterization of Indonesian Journal Article based Topic Modeling	Ali Rahman, Ana Hadiana, Agung Wahana, Wahyudin Darmalaksana, Muhammad Ali Ramdhani, Rizky Sam Pratama	14.00-14.20	15
070220	Augmented Reality Approach to Introduce Batik Garutan Using	Rizaldi Andriansyah, Nur Lukman, Ichsan Taufik, Agung Wahana, Dian	14.20-14.40	20

PaperID	Title	Authors	Time	#
	Features Accelerated Segment Test	Sa'adillah Maylawati, Beki Subaeki, Putri Diesy Fitriani		
070235	Design and Simulation Transfer Learning on Image Processing for Determining Condition of Robot Based on Neural Network	Asep Khoerudin, Rina Mardiaty, Edi Mulyana, Aan Eko Setiawan	14.40-15.00	35
070259	ANN Design Model to Recognize The Direction of Multi-Robot AGV	Aan Eko Setiawan, Angga Rusdinar, Rina Mardiaty and Eki Ahmad Zaki Hamid	15.00-15.20	59

PARALLEL SESSIONS 3
Internet-of-Things and Networked Systems
Thursday, 19 August 2021 15.40-18.20 (Room 1)

PaperID	Title	Authors	Time	#
070403	A smart waste management under a wireless communication system	Marwan Marwan, Nurhayati Nurhayati, Nur Aminah, Rusdi Wartapane, Muhammad Syarif and Ibrahim Abduh	15.40-16.00	3
070246	Design of Humadity Control with Automated Drip Irrigation System Using Node-RED and MQTT on Cactus Plant	Rachma Dianty, Rina Mardiaty, Edi Mulyana and Aep Kusnawan	16.00-16.20	46
070248	The Development of The Home Electrical Power Consumption System Prototype in Real-Time	Yusuf Maulana, Riski Darmawan, Lia Kamelia, Edi Mulyana, Mufid Ridlo Effendi and Muhammad Ibnu Pamungkas	16.20-16.40	48
070249	The Prototype of Smart Power Meter at Home Based on Internet of Things	Andi Irwansyah Satriananda Mufid Ridlo Efendi Lia Kamelia Aep Kusnawan	16.40-17.00	49
070250	AB MIX HYDROPONICS NUTRIENT SOLUTION CONCENTRATION CONTROL USING MICROCONTROLLER	Disan Alvin Nur Fadillah, Adam Faroqi, Lia Kamelia and Ah. Fathonih	17.00-17.20	50

PaperID	Title	Authors	Time	#
	BASED ON-OFF CONTROL METHOD			
070255	Prototype Smart Fish Farm in Fish Farming Koi	Pupug Ginanjar, Sarah Opipah, Dadan Rusmana, Muhlas Muhlas, Mufid Ridlo Effendi and Eki Ahmad Zaki Hamidi	17.20-17.40	55
070256	Design and Implementation of The Blind Navigation Aids Using Ultrasonic Sensor	Muhammad Yasir, Indri Nurfazri Lestari, Cucu Setiawan, Ulfiah Ulfiah, Mufid Ridlo Effendi and Eki Ahmad Zaki Hamidi	17.40-18.00	56
070257	Design and Implementation of Clothesline And Air Dryer Prototype Base on Internet of Things	Mohammad Haekal Gifari, Irfan Fahmi, Ajid Thohir, Abdullah Syafei, Mufid Ridlo Effendi and Eki Ahmad Zaki Hamidi	18.00-18.20	57

PARALLEL SESSIONS 3
RF Devices and Communication Systems
Thursday, 19 August 2021 15.40-18.20 (Room 2)

PaperID	Title	Authors	Time	#
070109	Transducer Array System Design for Underwater Communication Systems Using Audio Frequency	Viandra Nurmalita, Ni Nyoman Dheanty Maharani, Dr. Ir. Ian Joseph Matheus Edward, MT., Dr. Iskandar ST, MT.	15.40-16.00	9
070114	Implementation of Channel Coding System As Error Checking in The Underwater Communication System Using Audio Frequency	Ni Nyoman Dheanty Maharani, Viandra Nurmalita, Ian Joseph Matheus Edward, Iskandar	16.00-16.20	14
070343	AMC-Based Multiband Microstrip Antenna for Wireless Communication	Muhammad Farhan Maulana, Eki Ahmad Zaki Hamidi, Achmad Munir, Nanang Ismail	16.20-16.40	43
070344	Characteristic Performance of L-Band Waveguide BPF Made of Substrate Integrated Structure	Aulia Fathoni, Nanang Ismail, Hardi Nusantara, Achmad Munir	16.40-17.00	44
070345	Characterization of SIW-Based 5.8 Ghz Monopulse Antenna Using Type-V Linear Slot	Ebin Novendra, Achmad Munir, A. Bachrun Rifa'i, Nanang Ismail.	17.00-17.20	45

PaperID	Title	Authors	Time	#
070153	Hardware Design and Implementation of Long Range Communication System for Rural Area	I Kompiang Gede Wirahita Putramas, Ian Joseph Matheus Edward, Iskandar, Dharma Favitri Haryanto	17.20-17.40	53
070162	Power Allocation Effect on Capacity of Single Carrier Power Domain Non-Orthogonal Multiple Access (NOMA)	Muhammad Avi Majid Kaaffah and Iskandar	17.40-18.00	62
070182	Path Loss Estimation of 5G Millimeter Wave Propagation Channel – Literature Survey	Muhammad Brata, Irma Zakia	18.00-18.20	82

PARALLEL SESSIONS 4
Simulation, Modelling, Performance, and Measurement
Friday, 20 August 2021 08.20-10.40 (Room 1)

PaperID	Title	Authors	Time	#
070208	The Comparison of Steepest Ascent Hill Climbing and A-star for Classic Game	Wildan Budiawan Zulfikar, Mohamad Irfan, Rijal Muharom Yahya, Diena Rauda Ramdania, Jumadi	08.20-08.40	8
070216	Similarity Level Analysis of the Voices of Twins Using the Analysis of Variance and Likelihood Ratio Methods	Mohamad Irfan, Diena Rauda Ramdania, Nurul Hasni, Ichsan Budiman, Dian Sa'adillah Maylawati, Khaerul Manaf	08.40-09.00	16
070218	Citation Analysis on Scientific Articles Using Cosine Similarity	Ulfa Mardatillah, Wildan Budiawan Zulfikar, Aldy Rialdy Atmadja, Ichsan Taufik, Wisnu Uriawan	09.00-09.20	18
070231	Fuzzy Logic Control for Avoiding Static Obstacle in Autonomous Vehicle Robot	Fikri Ahmad Fauzi, Rina Mardiyati, Edi Mulyana, Aan Eko Setiawan	09.20-09.40	31
070232	Semi-Autonomous Navigation Robot Using Integrated Remote Control And Fuzzy Logic	Farhan Wildani, Rina Mardiyati, Edi Mulyana & Aan Eko Setiawan	09.40-10.00	32

PaperID	Title	Authors	Time	#
070233	Fuzzy Logic Based Control System for Electrical Conductivity in Aquaponic Cultivation	Rina Yuhasari, Nanang Ismail, Rina Mardiaty, and Setia Gumilar	10.00-10.20	33
070236	Fuzzy Logic-Based Control System to Maintain pH in Aquaponic	Muhammad Daffa Fadilah, Rina Mardiaty, Nanang Ismail and Ading Kusdiana	10.20-10.40	36

PARALLEL SESSIONS 4
Simulation, Modelling, Performance, and Measurement
Friday, 20 August 2021 08.20-10.40 (Room 2)

PaperID	Title	Authors	Time	#
070240	Survey on Hybrid Techniques in The Classification of Nutrient Deficiency Levels in Citrus Leaves	Lia Kamelia Titik Khawa Abdul Rahman Hoga Saragih Saepul Uyun	08.20-08.40	40
070152	Travel Salesman Problem Algorithm Using Proposed Algorithm Development with K-Smallest City Method	Arba Robbani, Ayu Latifah, Devani Claudia and Nana Rahmana Syambas	08.40-09.00	52
070258	Ball Identification and Localization using Regression for Wheeled Robot Soccer	Annisa Firasanti, Ahmad Fahrurrozi, Aeri Sujatmiko, Eki Ahmad Zaki Hamidi	09.00-09.20	58
070161	Fast Heuristic Algorithm Optimization for Travelling Salesman Problem	Ahmad Fauzi Iskandar, Ali Farhani Sani, Risyad Riyadi, Shafira Febriani and Nana Rahmana Syambas	09.20-09.40	61

PaperID	Title	Authors	Time	#
070164	Effect of Imperfect SIC in Non-Orthogonal Multiple Access (NOMA) over Rayleigh Fading Channels	Shita Herfiah and Iskandar	09.40-10.00	64
070165	Performance Comparison Between MIMO-NOMA 4x4 and MIMO-OMA 4x4	Ana Farahdiba and Iskandar	10.00-10.20	65
070167	Multiple User Fairness Power Allocation for Downlink NOMA	N. Rahayu and Iskandar	10.20-10.40	67

PARALLEL SESSIONS 5
Education
Friday, 20 August 2021 13.20-15.20 (Room 1)

PaperID	Title	Authors	Time	#
070221	Making Augmented Reality Learning Media in Stereochemistry of Carbohydrate Concepts Oriented Multiple Representations	Ilham Fitrotul Hayat;Ferli Septi Irwansyah;Neneng Windayani	13.20-13.40	21
070222	Development e-module on the concept of reduction-oxidation (redox) oriented towards chemical literacy	Adi Setya Permana, Ferli Septi Irwansyah and Cucu Zenab Subarkah	13.40-14.00	22
070226	Factors Affecting The Success of ICT Management Between Pesantren-Based Private Islamic Religious College	Cecep Nurul Alam, Yaya Suryana, Khaerul Manaf, Beki Subaeki, Faiz M Kaffah, Syopiansyah Jaya Putra and Muhammad Indra Nurardy S	14.00-14.20	26
070270	Arabic Part Of Speech (POS) Tagging Analysis using HMM Trigram method on Al-Qur'an Ayah Sentences	Arief Fatchul, Izki Zakiyah Al-Hamro, Asep Solih Awalluddin and Muhammad Ibnu Pamungkas	14.20-14.40	70
070271	Arabic Part Of Speech (POS) Tagging Analysis using Bee Colony Optimization (BCO) Algorithm on Quran Corpus	Arief Fatchul, Fauziah Fauziah, Elis Ratnawulan and Dian Rahmat Gumelar	14.40-15.00	71

PaperID	Title	Authors	Time	#
070272	Analysis Part of Speech Tagging Using Hidden Markov Model on Qur'an Data	Arief Fatchul Huda, Muhammad Hafidz Naufal Hilal, Aep Saepuloh and Dedi Supriadi	15.00-15.20	72

PARALLEL SESSIONS 6
Wireless and Telematics Systems
Friday, 20 August 2021 15.40-18.20 (Room 1&2)

PaperID	Title	Authors	Time	#
070101	Implementation of C-Band Antenna for Man-Portable Ground Surveillance Radar	Wervyan Shalannanda and Tommi Hariyadi	15.40-16.00	1
070105	Remote Medical Check-up Kit System for Communication Platform in Rural Area	Moh Rizki Hidayatulloh and Iskandar	16.00-16.20	5
070151	Optimization of Ring Topology Routes Using Node and Link Swapping Methods	Dimas Aji Pangestu, Radifa Akbar Abhesa, Zahrina Maryam and Nana Rahmana Syambas	16.20-16.40	51
070154	Design and Implementation of Software and Web Dashboard on Long Range Communication Systems for Rural Area	Putu Priyana Pradipta	16.40-17.00	54
070163	Parameter-Based Clustering Algorithm for Clustered Wireless Sensor Networks with High Altitude Platforms as the Base Station	Dimas Aji Pangestu, Hendrawan and Iskandar	17.00-17.20	63
070173	Design and Implementation of 433 MHz Radio Communication System as Secondary Network for BMKG Sensor Data Acquisition	Lutfiatul Mar'Ah	17.20-17.40	73
070175	Analyzing Interference Problems in 5G Wireless Network	Karisa Ardelia Hanifah, Faizal Husni, Ali Farhani	17.40-18.00	75

PaperID	Title	Authors	Time	#
		Sani, Wervyan Shalannanda, Irma Zakia and Tutun Juhana		
070176	Comparative Analysis of Cloud RAN Model on Low-latency Application for IoT-based 5G Networks	Putu Priyana Pradipta, Gelar Pambudi Adhiluhung, Hafizh Mulya Harjono, Wervyan Shalannanda, Irma Zakia and Tutun Juhana	18.00-18.20	76
070185	Digital Logic Design Laboratory using Autodesk Tinkercad and Google Classroom	Wervyan Shalannanda	18.20-18.40	85
070187	Designing Information Security Governance Recommendations and Roadmap Using COBIT 2019 Framework and ISO 27001:2013 (Case Study Ditreskrimsus Polda XYZ)	Muhammad Yasin;Arry Akhmad Arman;Ian Joseph M. Edward;Wervyan Shalannanda	18.40-19.00	87
070188	Implementation of the Hardware Module of IoT-based Infant Incubator Monitoring System	Wervyan Shalannanda;Irma Zakia;Fahmi Fahmi;Erwin Sutanto	18.40-19.00	88