



The 7<sup>th</sup> International Conference on Science, Technology and  
Interdisciplinary Research (IC-STAR) 2021  
FACULTY OF ENGINEERING UNIVERSITAS LAMPUNG  
Jl. Prof. Dr. S. Brodjonegoro No. 1 Bandar Lampung 35145  
Telp. (0721) 704947, Facs. (0721) 704947)  
<http://ic-star.unila.ac.id>



**Rundown**

**The 7<sup>th</sup> International Conference on Science, Technology and Interdisciplinary  
Research (IC - STAR) 2021  
26<sup>th</sup> October 2021**

TIME	PROGRAM	PIC	ZOOM LINK
08.00 – 08.30	Registrastion	Program Committee	Topic: IC–STAR UNILA 2021, International Conference on Science, Technology, and Interdisciplinary Research 2021 Time: Oct 26, 2021 07:30 AM Jakarta
08.30 – 08.35	Pray	Mr. Zulmiftahul Huda	
08.35 – 08.40	Opening Ceremony	MC	
08.40 – 08.50	National Anthem	Ms. Trisya	
08.50 – 09.10	Remarks and Report	Prof. Sugianto	
09.10 – 09.20	Welcoming Speech from The Dean of Eng. Fac.	Prof. Dr. Suharno	
09.20 – 09.30	Welcoming Speech and Opening Seminar	Prof. Dr. Karomani (The Rector of Unila)	
09.30 – 10.00	<b>COFFEE BREAK</b>		Join Zoom Meeting <a href="https://zoom.us/j/9894174428">https://zoom.us/j/9894174428</a>
<b>ON LINE PANEL PRESENTATION I – Zoom Virtual Room</b> Moderator : Dr. Lukmanul Hakim			Meeting ID: 998 9417 4428 Passcode: 283153
10.00 – 10.20	Keynote Speaker 1	Prof. Moh. Badaruddin UNILA - Indonesia	Join by Skype for Business <a href="https://zoom.us/j/99894174428">https://zoom.us/j/99894174428</a>
10.20 – 10.20	Keynote Speaker 2	Prof. Andrivo Rusydi, NUS - Singapore	
10.40 – 11.00	Keynote Speaker 3	Prof. S. Vaidyanathan, Vel Tech Univ – India	
<b>11.00 – 12.00</b>	<b>Paralel Session I (Zoom Virtual Room)</b>		
12.00 – 13.00	<b>LUNCH BREAK</b>		
<b>ON LINE PANEL PRESENTATION II – Zoom Virtual Room</b> Moderator : Martinus, S.T., M.Sc.			
13.00 – 13.20	Keynote Speaker 4	Prof. Takaaki Kato, Kitakyushu Univ.- Japan	
13.20 – 13.40	Keynote Speaker 5	Dr. M.V. Reddy, Institute of Research Hydro-Quebec - Canada	
<b>13.40 – 16.00</b>	<b>Paralel Session II (Zoom Virtual Room)</b>		
16.00 - 16.30	Resume Statement and Closing of IC-STAR 2021		



### Rundown

#### Parallel Session (Zoom Virtual Room)

Parallel Session I (Zoom Virtual Room)				
Time : 11.00 - 12.00				
ROOM 1				
Moderator : Dr. Eng. Shirley Savetlana				
No	Time	ID	Author	Paper Title
1	11.00 - 11.15	53	Akroma Hidayatika, Suharno Suharno and Rahmi Mulyasari	Geophysical Resistivity Model for Estimation Gold Potential in Pesisir Barat, Lampung
2	11.15 - 11.30	28	Elina Ambari, Muhammad Makarim, Yasmin Ihzani, Ayu Dewi, Muhammad Qurrahman and Dyah Wardhani	Combbination of Glucomannan and PVA with Glutaraldehyde Cross-linker Using Wet Spinning Method as an Alternative to Absorbable Surgical Suture
3	11.30 - 11.45	10	Ryo Tanaka, Aniendhita Amalia, Kenshi Ochi, Taichi Kamachi and Tomohiro Shiota	Parameter Estimation of Combined Hardening Rules for Structural Steel Members
4	11.45 - 12.00	16	Bija Hardhona Aji, Sonki Prasetya and Noor Hidayati	Smart Detection of Solar Panel Cleanliness Using Artificial Intelligence for the Remote Area Maintenance
Parallel Session II (Zoom Virtual Room)				
Time : 13.40 - 15.55				
ROOM 1				
Moderator : Dr. Misfa Susanto				
1	13.40 - 13.55	5	Arif Ainur Rafiq, Sugeng Dwi Riyanto, Artdhita Fajar Pratiwi and Eka Dyah Puspita Sari	Data Logging of INA 219 Sensor Using LabVIEW in Solar Cell Design as Renewable Energy Source
2	13.55 - 14.10	29	Whisnu Febry Afrianto	The potential distribution prediction of the invasive alien species <i>Acacia decurrens</i> Wild., in Indonesia
3	14.10 - 14.25	45	Hery Dian Septama, Mahendra Pratama, Titin Yulianti, Gigih Forda Nama and Arham Awal Abiyan	Sentiment Analysis of Tourism Sites in Lampung Province using Multinomial Naïve Bayes



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4	14.25 - 14.40	12	Jesica Rahmaningrum, Fauzandy Husna Setyanto, Alifia Rizki Adina, Muhamad Dani Fadholi, Rifki Aliafi Yahya and S Silviana	Silica-based Coating Derived from Geothermal Solid Waste: A Review
5	14.40 - 14.55	6	Sutardi Sutardi and M Nuril Fuad	Flow characteristics around a NACA 4412 airfoil in the ground proximity
6	15.10 - 15.25	50	A. Yudi Eka Risano, Riko Eriyadi and Muhammad Irsyad	Eutectic Sodium Chloride (NaCl) as Phase Change Material (PCM) for Fish Cold Storage
7	15.25 - 15.40	52	Rahmat Catur Wibowo, Muh Sarkowi and Ahmad Zaenudin	A Combined of Electrical Resistivity Tomography and Structure from Motion Method for Landside-Prone Zone Analysis in East Kota Agung Region
8	15.40 - 15.55	61	Herry Wardono, A. Yudi Eka Risano, Simparkin Br. Ginting	Comparison of Utilization of Rice Husk Charcoal as Air Filter in Enhancing The Performance of a 4 Stroke Gasoline Motorcycle

**Parallel Session I (Zoom Virtual Room)**

**Time : 11.00 - 12.00**

**ROOM 2**

**Moderator : Dr. M. Irsyad**

No	Time	ID	Author	Paper Title
1	11.00 - 11.15	43	Meita Rumbayan, Inneke Rumengan, Benefit Narasiang and Maulana Nurokhim	Development of Appropriate Technology Prototypes for the Food Dryer Powered by Solar Photovoltaic
2	11.15 - 11.30	46	Bagus Sapto Mulyatno, Ordas Dewanto, Isti Nurkamalasari and Rahmat Catur Wibowo	Analysis of the Effect of Lithology on the Maximum Temperature (Tmax) of Oil Shale on the Change of Organic Substances into Oil or Gas at Source Rock Using SEM and TGA
3	11.30 - 11.45	33	Elina Sabella Ambari, Muhammad Rizky Makarim, Ihzani Yulistra Yasmin, Ayu	Combination of Glucomannan and PVA with Glutaraldehyde Cross-linker Using Wet Spinning Method as Absorbable Surgical Suture



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			Puspita Dewi, Muhammad Alka Taufiq Qurrahman and Dyah Hesti Wardhani	
4	11.45 – 12.00	56	Rahmi Mulyasari, Aminudin Syah, Azhari Azhari, Rahmat Catur Wibowo and Nandi Haerudin	Geomorphology and Landslide Hazard Assessment in Bandar Lampung City
<b>Parallel Session II (Zoom Virtual Room)</b> <b>Time : 13.40 – 15.55</b>				
<b>ROOM 2</b> <b>Moderator : Dr. Endro P. Wahono</b>				
1	13.40 – 13.55	32	Siti Anugrah Mulya Putri Ofrial, Febriyan Dwi Wisena, Chatryne Pricillya Ris Mentari and Dwi Herianto	Highway Dispersion Models in the New Normal Era in Bandar Lampung City
2	13.55 - 14.10	4	Lilik Zulaihah, Mohammad Rachman Waluyo and Alina Cynthia Dewi	EXPERIMENTAL STUDY OF POLYURETHANE FOAM ABSORPTION OF TRANSPORTATION EXHAUST GAS POLLUTANTS IN PONDOK LABU CITY, SOUTH JAKARTA
3	14.10 – 14.25	59	Simpardin Br Ginting, Eva Martha Pratiwi, Muhammad Hanif and Herry Wardono	Modification Zeolite LTA/TiO <sub>2</sub> -N for Degradation of Methylene Blue Dye Waste
4	14.25 – 14.40	21	Elyorbek Safarov and Jalolitdin Mukhitdinov	Increasing the Productivity and Energy Efficiency of the Drum Grain Dryer
5	14.40 – 14.55	42	Mohammad Badaruddin, Budi Prasetya, Sugiyanto Sugiyanto and Zulhanif Zulhanif	The dependence of impact toughness of AISI 4140 steel on austempering temperatures
6	15.10 – 15.25	48	Martinus Martinus, Agus Haryanto, Sugeng Triono, Mareli Telaumbanua,	Development of Automatic Teak Leaf Plate Molding Machine for Sustainable Disposable Plate and Comparing the Produced Plate from The Manual Machine



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			Sri Ratna Sulistiyanti and Meizano Ardhi Muhammad	
7	15.25 - 15.40	44	Candra Kurnia Nugraha, Gigih Forda Nama and Hery Dian Septama	Design and Implementation of Free Ambulance Service System in Bandar Lampung City Based on Android
8	15.40 - 15.55	54	Harmen Harmen, Zulhanif Zulhanif, Ahmad Yonanda, Willy Adriansyah, Abdurrachim and Ari D Pasek	ANALYSIS OF SUPERCRITICAL ORC AND HEAT TRANSFER COEFFICIENT OF PROPANE ABOVE SUPERCRITICAL PRESSURE

**Parallel Session I (Zoom Virtual Room)**

**Time : 11.00 - 12.00**

**ROOM 3**

**Moderator : Prof. Joni Agustian**

No	Time	ID	Author	Paper Title
1	11.00 - 11.15	2	I nyoman Merdana	Tensile strength properties of normal strength concrete ascribed to loading type and specimen size
2	11.15 - 11.30	49	Riza Muhida, Muhammad Riza, Hendri Dunan, Bambang Pratowo, Ahmad Cucus, Dandi Efendi and Soewito Soewito	Development of Maximum Power Point Tracking for Photovoltaic System Based on Temperature Compensating Method
3	11.30 - 11.45	26	Fertian Eka Purnama and Adi Surjosatyo	Techno-Economic Analysis of the Use of Sand Extraction Equipment to Increase Crude Oil Production in the Batang Siak Oil and Gas Field
4	11.45 - 12.00	30	Endro Prasetyo Wahono, Dyah Indriana Kusumastuti and Dyah Wulan Sr Wardani	The Urgency of Fish Ladder Structures for Migration of <i>Anguilla bicolor</i> on the West Coast of Lampung: Literature Review

**Parallel Session II (Zoom Virtual Room)**

**Time : 13.40 - 15.55**

**ROOM 3**

**Moderator : Dr. Lilis Hermida**



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1	13.40 - 13.55	34	Ika Kustiani, Nur Syahidah Aini and Masdar Helmi	GREEN BUILDING ASSESSMENT AND RECOMMENDATIONS FOR OPTIMIZATION CASE STUDY ON THE RECTORATE BUILDING THE UNIVERSITY OF LAMPUNG
2	13.55 - 14.10	25	Mochamad Yusuf Santoso, Galih Anindita, Mades Darul Khairiansyah, Joko Endrasmono and Edy Setiawan	Reducing light intensity using blue light filter on LED-based smartphone screen
3	14.10 - 14.25	18	Muhammad Iqbal Fatoni, Ari Yanuar Ridwan and Prafajar Suksessanno Muttaqin	Design of Vendor Selection System using FAHP and FTOPSIS in Engineering-to-Order Manufacturing Industry
4	14.25 - 14.40	40	Irza Sukmana, Ulin Herlina and Fauzi Ibrahim	Production and characterization of porous magnesium scaffold using Titanium Wire Space Holder (TWSH) for bone implant application
5	14.40 - 14.55	35	Rian Amukti, Cahya Damayanti and Suyadi Suyadi	ELECTRICAL RESISTIVITY AND SPATIAL METRICS OF VEGETATION ANALYSIS AS INDICATORS OF SEAWATER INTRUSION IN AMBON ISLAND
6	15.10 - 15.25	38	Arif Ainur Rafiq, Sugeng Dwi Riyanto, Artdhita Fajar Pratiwi and Eka Dyah Puspita Sari	Data Logging of INA 219 Sensor Using LabVIEW in Solar Cell Design as Renewable Energy Source
7	15.25 - 15.40	9	Artdhita Fajar Pratiwi, Galih Mustiko Aji, Arif Ainur Rafiq and Eka Dyah Puspita Sari	Heart rate and blood oxygen levels measuring tool as a Covid - 19 safety procedure in the implementation of practice class
8	15.40 - 15.55	51	Muhammad Hanif, Maulana Ikhsan Hasibuan, Heru Ismanto, Wintolo, Yuli Darni and Edwin Azwar	Combine chemical and physical treatments for cellulose fiber extraction from corncobs

**Parallel Session I (Zoom Virtual Room)**

**Time : 11.00 - 12.00**

**ROOM 4**





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**Moderator : Dr. Herman H. Sinaga**

No	Time	ID	Author	Paper Title
1	11.00 - 11.15	17	Dwi Gustiono, Ririn Yulianingtias, Nandang Suhendra, Nendar Herdianto, Wenny Maulina, Lutfi Rohman, Diah Ayu Fitriani and Mochammad Dachyar Effendy	Fish Bone-Derived Hydroxyapatite: Effect of Milling Time
2	11.15 - 11.30	22	Lakhdar Sek	Klein Gordon Oscillator in Non-commutative space
3	11.30 - 11.45	15	Rio Aurachman	Stochastic Dynamic Programming for Segment Choosing in Vaccination Program
4	11.45 - 12.00	8	Aniendhita Rizki Amalia, Kenshi Ochi, Ryo Tanaka, Taichi Kamachi and Tomohiro Shiota	A Comparison of Hardening Rules for Numerical Analysis of SHS under Cyclic Bending Loading

**Parallel Session II (Zoom Virtual Room)**

**Time : 13.40 - 15.55**

**ROOM 4**

**Moderator : Dr. Herman H. Sinaga**

1	13.40 - 13.55	55	Sugiyanto Sugiyanto, Putra. Praniko Rayenda, Hakim Rizqal, Mohammad Badaruddin and Zulhanif Zulhanif	Effect of Temperature and Holding Time on Impact Toughness of Austempered Gray FC 25 Cast Iron
2	13.55 - 14.10	58	Jorfri Boike Sinaga, Novri Tanti and Randa Admiral	Development of Testing Equipment of Gravitational Water Vortex Turbine to Support Implementation Laboratory Work
3	14.10 - 14.25	31	Yuda Romdania, Ahmad Herison and Endro Wahono	Erosion Prediction of the Khilau Sub-Watershed Using the Rusle Method
4	14.25 - 14.40	60	Amrizal Amrizal, Abdurrahman Firmansyah and Amrul Amrul	Design and CFD Analysis of Photovoltaic/Thermal (PV/T) Air Collector with Straight Fins
5	14.40 - 14.55	24	Ahmad Syarief Iskandar, M.Ishaq Iskandar, Nurul	ORGANIZATIONAL LEADERSHIP BEHAVIOR IN DEVELOPMENT OF THE GOVERNMENT SYSTEM ELECTRONIC BASED



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			Inayah Iskandar and Takdir Takdir	
6	15.10 - 15.25	41	Irza Sukmana, Fauzi Ibrahim and Mohammad Badaruddin	Fatigue Properties of Extruded Magnesium AZ31B For Bone Implant Applications
7	15.25 - 15.40	27	Yuli Suwarno and Fitri Nur Khasanah	Analysis of Production Defect Reduction Using The Six Sigma Method on Plastic Bags Products
8	15.40 - 15.55			

**Parallel Session I (Zoom Virtual Room)**

**Time : 11.00 - 12.00**

**ROOM 5**

**Moderator : Dr. Ageng Sadnowo R.**

No	Time	ID	Author	Paper Title
1	11.00 - 11.15	47	Ordas Dewanto, Rahmat Catur Wibowo, Paulus Leonardo Manurung, Perdana Rizki Ordas and Istifani Ferucha	DETERMINATION OF KEROGEN TYPE AND MATURITY LEVEL OF SOURCE ROCK IN NORTH EAST JAVA BASIN REGION
2	11.15 - 11.30	23	Agung Budi Cahyono and Komang Bayu Angga Sardana	3D Modeling Interior Building Using Low-Cost 360- degree Camera
3	11.30 - 11.45	11	Teuku Muttaqin Mansur, Muslim Muslim, Fariz Izzatul Rahman, Hasbi Ali and Indra Kesuma Hadi	Development of a Web-based Aceh Customary Court Documentation System using Linear Sequential Model
4	11.45 - 12.00	19	Gusta Gunawan	Forecasting the Air Bengkulu Flood Peak Discharge using the Gama and Nakayasu Synthetic Unit Hydrograph

**Parallel Session II (Zoom Virtual Room)**

**Time : 13.40 - 15.55**

**ROOM 5**

**Moderator : Dr. Nandi Haerudin**

1	13.40 - 13.55	14	Rio Aurachman	Continuous Review Inventory Policy Using System Dynamics Simulation using Vensim
2	13.55 - 14.10	57	Lestari Wuryanti and Isma Kartika	Factors Affecting Company Profit Growth During the Covid-19 Pandemic (Case Study on Plantation and





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				Food Corps Companies Listed on the Indonesia Stock Exchange for the 2017-2020 Period)
3	14.10 - 14.25	20	Agung Sutrisno, Vikas Kumar, Shinta Virdhian and Mohammad Asjad	Mapping Engineering Tools to Improve Manageability of Supply Chain Sustainability Risk
4	14.25 - 14.40	39	Irza Sukmana, Agus Priyanto, Tarkono Tarkono and Yusup Hendronursito	Mechanochemical Synthesis of Hydroxyapatite (HAp) From Local Lampung - Indonesia Limestone
5	14.40 - 14.55	37	Permana Andi Paristiawan, Andani Nurul Hidayah and Faried Miftahur Ridlo	Effect of Double Solution Heat Treatment Process with Variation of Quenching Media on Microstructure and Mechanical Properties of Medium Manganese Steel
6	15.10 - 15.25	13	Githa Andani Suharningtyas	ANALYSIS OF THE IMPACT OF A PANDEMY ON THE DEVELOPMENT OF MSMES BY INVOLVE INFLUENCE BETWEEN REGIONS
7	15.25 - 15.40	3	Aditi Dixit, Shweta Gaurav and Akriti Rai	IMPINGEMENT OF TRANSPORTATION ON THE AMBIENT AIR QUALITY OF LUCKNOW
8	15.40 - 15.55			