

With the support of the Erasmus+ Programme of the European Union

MESFIA 2021



Mastering Energy Supply for Isolated Areas International Conference

Virtual/Online via Zoom

31 August to 01 September 2021



Live streamed and recorded at MESFIA Project Facebook page https://www.facebook.com/Mesfia/

Conference Program

31 August 2021, Tuesday				
Time (Thailand time)	Session Title	Session Chair (s)		
08:25 – 09:00	 Opening and Welcome Session (35 minutes) Welcome Remarks by Prof. S. Kumar, Conference Chair, AIT Opening Remarks by Dr. Eden Y. Woon, AIT President Welcome Remarks Ms. Francesca Gilli Attaché Programme Officer Cooperation Delegation of the European Union to Thailand Project Introduction and Summary by Dr. Antonios Tsikalakis, MESFIA Project Coordinator (Hellenic Mediterranean University, Greece) 	Prof. Shobhakar Dhakal Asian Institute of Technology (AIT), Thailand		
09:00 – 09:30	KEYNOTE Address 1 (30 minutes): The Last Mile: the Longest 21st Century Energy Services for Remote Communities Dr. Priyantha Wijayatunga Asian Development Bank (ADB)			
09:30 -10:30	 Session 1: (60 minutes, 4 papers maximum) Promoting Electricity Access MESFIA_109: Reaching People: An Overview of the Electricity Access with a Focus on the Renewable Off-Grid Electrification in Namibia MESFIA_130: Feed-In Tariff for PV for Indonesia MESFIA_135: Off-grid Self-sustained Electricity Supply for Isolated Villages: Case of Baththalangunduwa Island in Sri Lanka MESFIA_112: Fuel transitioning in crises: A study of an LPG cooking-system pilot project conducted in Kachin IDP camps, Myanmar 	 Assoc. Prof. Dr. Sarintip Tantanee (Naresuan University, Thailand) DrIng. Deny Hamdani (Institut Teknologi Bandung, Indonesia) 		
10:30 - 10:45	Coffee/Tea Break (15 minutes)			

10:45 – 12:00	Session 2: (75 minutes, 5 papers maximum) Renewable Energy Resources for Isolated Areas Energy Access	1.	Prof. Salvador Suarez (Instituto Technologico de las Islas Canarias (ITC), Spain)
	MESFIA_118: A Study into Forced-Air-Cooling and Heat Pump Systems for Solar Panels	2.	Prof. Georges Zissis (Universite Toulouse III –
	MESFIA_103: Characteristics of Biogas-Hydrogen Engines in a Hybrid Renewable Energy System		Paul Sabatier (UPS), France)
	MESFIA_137: Concentrated Solar Thermal Power: Potential of Application in Sri Lanka		
	 MESFIA_140: Performance of Household Rice Husk Downdraft Gasifier in Vietnam – Modeling and Experiment MESFIA 139: Influence of Several Variables on the 		
	Estimation of Wind Turbine Power Outputs using Support Vector Regression Technique		
12:00 – 13:00	Lunch Break (60 minutes)		
13:00 – 15:20	Electricity Access in Isolated Areas: Panel Discussion (Utilities)	1.	Prof. S. Kumar (Asian
	(140 minutes) Bhutan, Cambodia, Indonesia, Sri Lanka, Thailand, Fiji, Greece,		Institute of Technology (AIT), Thailand)
	Spain	2.	Dr. Jai Govind Singh (Asian
			Institute of Technology (AIT), Thailand)
15:20 – 15:35	Coffee/Tea Break (15 minutes)	_	· · ·
15:35 – 16:05	KEYNOTE Address 2 (30 minutes):	1.	Prof. Salvador Suarez
	Renewables for Energy Access in Asia: Key Lessons and Way Forward		(Instituto Technologico de las Islas Canarias (ITC),
	Mr. Divyam Nagpal	2	Spain) Prof. Georges Zissis
	International Renewable Energy Agency (IRENA)	۷.	(Universite Toulouse III – Paul Sabatier (UPS), France)
16:05 – 17:55	Session 3: (105 minutes, 7 papers maximum) Energy Access in Island Communities	1.	Prof. Bich Huy Nguyen (Nong Lam University (NLU),
	MESFIA_104: Impacts of Network Parameter Variation in the Stability of Small Island Power Systems with VRE	2.	Vietnam) Mr. George Koulouris (Canary Wharf Consulting
	MESFIA_107: Scenario Analysis of Generation Expansion Planning for Indonesian Archipelagic Islands: A Case Study of Halmahera Island		(CWC), United Kingdom)
	 MESFIA_117: Hybrid System (Solar Photovoltaic Power Plant + Diesel Power Plant) as Technical Solution to Reduce Electricity Production Cost in Tourist Destination Isolated Island - Case Study Karimun Jawa Island 		
	MESFIA_120: Solar and Wind Energy Resource Assessment for Bantayan Islands		
	 MESFIA_122: Optimal Small Wind Turbines for Small Isolated Island's Energy Resilience Considering Wind Uncertainty: A Case of Komodo Island 		
	END of DAY 1		
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01 Septem	ber 2021, Wednesday	
Time (Thailand time)	Session Title	Session Chair(s)
09:00 – 9:15	Short recap of day 1 (15 minutes)	 Dr. Sarjiya Sarjiya (Universitas Gadjah Mada, Indonesia) Asian Institute of Technology (AIT), Thailand
9:15 - 10:15 10:15 - 10:30 10:30 - 11:15	 Session 4: (105 minutes, 7 papers maximum) Electricity Access and Microgrids MESFIA_126: Methods for the Integration of Solar PV into UC Scheme in Isolated Microgrid System MESFIA_105: A Study of Low Voltage Distribution Network Topologies under Load Profiles Uncertainty MESFIA_115: Reliability Analysis of Micro-grid with One Large Solar PV and Distributed Small Solar PV: Case Study Karampuang Island MESFIA_142: A Review of Applied Methods in Microgrid Protection MESFIA_134: Islanding Operation among Solar Hybrid System and Grid-tied PV System in Buildings MESFIA_136: Microgrid Technology and Development in Thailand 	1. Assoc. Prof. Dr. Vo Trung Hung (University of Technology and Education – The University of Danang (UTE-UD), Vietnam) 2. Assoc. Prof. Dr. Sarintip Tantanee (Naresuan University, Thailand)
11:15 – 12:15	Lunch Break (60 minutes)	
12:45 - 14:00	Closing the Gap - Insights into Clean Cooking in the Asia-Pacific Mr. Michael Williamson United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) Session 5: (75 minutes, 5 papers maximum) Energy Access and Social Development 1. MESFIA_128: Solution for Supplying Electricity to Isolated Regions: A Case Study of Vietnam 2. MESFIA_129: Postgraduate Programs relevant to Sustainable Development and Energy Access organized by Universities in Islands or Isolated Areas 3. MESFIA_132: A Review of Software Tools for Technical Training Needs in Isolated Areas 4. MESFIA_133: Energy Access and Energy Use Status and Barriers for Renewable Energy Deployment in Remote Villages in Southern Myanmar 5. MESFIA_138: A Novel Optically Transparent Array Antenna Using Conductive ITO Film and Integrated in OLED for mm-Wave 5G Applications.	 Dr. Sarjiya Sarjiya (Universitas Gadjah Mada, Indonesia) Dr. Jai Govind Singh (Asian Institute of Technology (AIT), Thailand) Dr. Antonios Tsikalakis (Hellenic Mediterranean University (HMU), Greece) DrIng. Deny Hamdani (Institut Teknologi Bandung, Indonesia)
14:00 – 14:15	Coffee/Tea Break (15 minutes)	
14:15 – 15:15	Session 6: (60 minutes, 4 papers maximum) Energy Supply in Mountainous and Isolated Areas	Dr. Jai Govind Singh, Asian Institute of Technology (AIT), Thailand

	 MESFIA_116: Optimal and Reliable Variable Renewable Energy Power Plant for Isolated Area - Case Study Riam Batu Village Ms. Nefeli Bantela, EUROTraining, Greece
	MESFIA_119: Data-Flow Programming Based Non- Intrusive Load Monitoring for Electricity in Remote Area
	MESFIA_124: Assessment of Renewable Energy Power Generation in Tegal Regency Using HOMER Simulation
15:15 – 15:30	Closing Session (Concluding remarks from MESfIA Partners) Asian Institute of Technology (AIT), Thailand Naresuan University (NU), Thailand Universitas Gadjah Mada (UGM), Indonesia Institut Teknologi Bandung (ITB), Indonesia University of Technology and Education – The University of Danang (UTE-UD), Vietnam Nong Lam University (NLU), Vietnam Instituto Tecnológico de las Islas Canarias (ITC), Spain Université Toulouse III-Paul Sabatier (UPS), France Canary Wharf Consulting (CWC), United Kingdom EUROTraining, Greece Hellenic Mediterranean University (HMU), Greece