	IEEE PES ISGT-Asia Conference 5-8 December 2021 Brisbane Convention & Exhibition Centre and Online
	The program is accurate as at 26 October 2021 and is subject to change *Please note that times are based on Australian Eastern Standard Time (AEST)*
	Sunday, 05 December 2021
	Virtual Only
09:30 - 12:30	*Tutorial 1*
	Green hydrogen: integrated system modelling, operation and planning **Prof Pierluigi Mancarella** *Program Leader* *Energy Systems* *Melbourne Energy Institute* *Chair Of Electrical Power Systems* *Electrical and Electronic Engineering*
12:30 - 13:30	**Lunch Break**
13:30 - 16:30	*Tutorial 2*
	DNP3: SCADA, Clear and Simple **Mr Andrew West** *Regional Technical Director* *SUBNET Solutions Pty. Ltd.*

IEEE PES ISGT-Asia Conference
5-8 December 2021
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Monday, 06 December 2021

Virtual Only

	Session 1	Session 2	Session 3	Session 4
	Data analytics and cyber security 1	*Smart Grids and Active Distribution Networks 1*	*Intelligent Grid Planning, Operation and Management 1*	*Renewable generation and distributed energy resources 1*
09:00	27: Ultra-short term wholesale electricity price prediction through deep learning **Mrs Ana Alvarez**	6: A Novel Detection Method for High Impedance Fault based Real-Time Modeling and Simulation **Mr Alaa El Hamrawy**	28: A Short-Term Load Forecasting Technique Using Extreme Gradient Boosting Algorithm **Mr Shafiul Hasan Rafi**	21: The Experimental Assessment of Different PV Cell Temperature Models Under The Actual Climatic Conditions for Cd-Te PV Modules **Mr Huseyin Akdemir**
09:12	35: Real-Time Short-Term Voltage Stability Assessment using Temporal Convolutional Neural Network **Mr Ananta Adhikari**	55: Field Trial for Evaluating the Benefits of Using Lateral Reclosing **Ms Roxanna Partow**	29: Assessing the Risk of Blackout in a Low Inertia Power System and a Possible Countermeasure **Mr Md. Nahid Haque Shazon**	25: Probabilistic Voltage Stability Assessment Considering Load and Wind Uncertainties **Mr Mohammed Alzubaidi**
09:24	98: The Impact of Inverter-based Generators on Machine Learning-based Transmission Line Fault Detector **Mr Khalfan Al Kharusi**	69: Sustainable and decarbonized data-center facilities: A socio-techno-economic discussion **Mr Amin Ziagham Ahwazi**	51: Synthetic Grid Modeling for Real-Time Simulations **Mr Felipe Arrano-Vargas**	36: Quantifying the resilience potential of standalone PV and solar-plus-storage for commercial buildings nationwide **Ms Lucy Groves**
09:36	Grouped Q&A	Grouped Q&A	Grouped Q&A	Grouped Q&A
09:45	177: Data-driven indentification of phase connectivity in power distribution feeders with electric vehicles charging load **Mr Dilan Chathuranga Naranapiti Hangawatta Appuhamilage**	130: Electric Vehicle User Behavior Prediction Using Gaussian Mixture Models and Soft Information **Dr Rebecca Adam**	53: ML-assisted Real Time Congestion Mitigation under Supply-side Uncertainties **Mr Praveen Verma**	65: V2G Contribution to Reduction of Renewable Energy Curtailment by Valley-filling Approach **Mr Shohei Kanai**
09:57	259: Correlation Analysis of Wind Farms through Short- term Probablitic Analysis **Mr Shichen Yang**	135: Modelbased Predictive Control System for Battery-Trolleybuses in a LVDC Traction Network **Mr Mahjar Wazifehdust**	58: Determination Method of Optimal LFC Capacity for Massive PV Installation in Conditions of Ramp Down During a Sunny Day **Mr Keito Nishida**	80: MATLAB/Simulink Modelling of Multi-junction PV Cell for Conversion Efficiency Improvement using Maximum Power Point Tracking Method **Dr Narottam Das**
10:09	Grouped Q&A	170: Reliability Improvement in Renewable-rich Power Systems with Optimal Placement of Auto-reclosers **Mr Mushfik Fahim Mir, Ms Sonal Dhole, Dr Kazi N. Hasan**	76: An Online Estimation Method of Power System Inertia Using Phasor Measurement Unit Measurements After a Disturbance Considering Damping Effect **Mr Yukai Wang**	96: Block Coordinate Decent Robust Bidding Strategy of a Solar Photovoltaic coupled Energy Storage System operating in a Day-ahead Market **Mr Mehrdad Aghamohamadi**
10:21		Grouped Q&A	Grouped Q&A	Grouped Q&A
10:30	**Morning Break**			
	Control applications and energy storage 1	*Smart Grids and Active Distribution Networks 2*	*Intelligent Grid Planning, Operation and Management 2*	*Renewable generation and distributed energy resources 2*
11:00	20: Robustness Evaluation of a WAMPAC Scheme Considering Problems with Communication Links **Prof Elizabeth L. Ratnam**	171: Load Balancing in Low-Voltage Distribution Networks via Optimizing Residential Phase Connections **Dr Bin Liu**	103: Optimal Operation of Photovoltaic and Micro-grid Energy Storage System Considering Battery Health and Electric Vehicle Charge and Discharge **Mr Yongyi Huang**	81: Mitigation of Power Quality Issues with Solar PV Penetration into LV/MV Distribution System **Dr Narottam Das**
11:12	83: Comparative Study of GFM-grid and GFL-grid in Islanded Operation **Mr Christian Sunjoh**	195: Effective Reactive Power Reduction of Low-Voltage PV Inverters by Applying Volt-var Control Method to High-Voltage PV Smart Inverters **Mr Yusuke Yamashita**	116: Enhancement of Long-Term Peak Demand Forecast in Peninsular Malaysia **Ms Nazaitul Idya Hamzah**	109: Energy Storage Management System for Smart Home: an Economic Analysis **Dr Zahra Foroozandeh**
11:24	124: Performance Comparison Between GFM and GFL Inverters In 100% Inverter-Based Power Systems **Dr Xuan Hieu Nguyen**	224: Deterministic scheduling optimisation for Local Flexibility Markets in distribution networks **Mr Jokubas Ciurlionis, Prof Phuong Nguyen**	167: A Low-voltage Distribution Network Configuration Planning by Interval Arithmetic **Mr Hiroki Yokota**	115: Assessing the flexibility of electricity-gas-hydrogen distribution systems with P2G units **Miss Antonella Maria De Corato**
11:36	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)

11:45	129: Virtual Synchronous Generator based Control of PV with Reactive Current Control **Mr Abdul Wafi Misbah**	5: Optimizing Smart Micro Inverter GMPPT using Reconfigurable Control System Algorithm using IoE **Dr Rafat Rob**	173: Installation of a synchronous condenser - Kiamal Solar Farm example **Mr Aleksandar Karisik**	139: Real-Time Hardware-in-the-Loop Distributed Energy Resources System Testbed using IEEE 2030.5 Standard **Mr Jinsan Kim**
11:57	101: Local Effects of Grid-Forming Converters Providing Frequency Regulationto Bulk Power Grids **Mr Francesco Gerini, Miss Yihui Zuo**	44: Detection of Falling Conductor in Distribution Overhead Lines **Mr Chirag Mistry**	194: Optimization Model of Reserve Allocation in High Penetration Renewable Energy Power System **Miss Mengqi Li**	162: Droop-based Grid-forming Function by Type IV Wind Farm for Fast Frequency Control **Dr Xuan Hieu Nguyen**
12:09	90: A Techno-economic Investigation for the Application of Second-Life Electric Vehicle Batteries for Behind-The-Meter Services **Dr Amir Fazeli**	48: Testing System Integrity Protection Schemes **Mr Chirag Mistry**	199: Grid Automation Device Management in the Cloud **Mr Andrew West**	193: Compact model for estimating area-level photovoltaic power generation on facade surface using 3D city model and solar radiation simulation **Mr Ryo Nakazato**
12:21	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
12:30	**Lunch Break**			
	Control applications and energy storage 2	***Power quality and power electronic applications 1***	***Intelligent Grid Planning, Operation and Management 3***	***Condition monitoring and diagnostics of power assets 1***
13:30	131: Reinforcement Learning Based EV Charging Scheduling: A Novel Action Space Representation **Mr Kun Qian**	77: Reliability Study of a Smart Distribution System with Optimal Sizing and Placement of Capacitors **Mr Fernando Salinas-Herrera**	200: Dynamic Economic Load Dispatch Considering Incentive-based Demand Response **Mr Makoto Ueoka**	54: Transformer Through Fault protection – challenges and improvements in asset monitoring for precise predictive maintenance **Mr Venkatesh Rokkam**
13:42	132: Optimal Digital Controller for Power Factor Correction of the Switching Power Supplies **Mr Emad Roshandel**	146: Mitigating Harmonics from Residential Solar Photovoltaic Systems **Dr Ha Le**	206: Robust Unit Commitment Based on IGDT Approach for Microgrid System Operation **Mr Naoki Takahashi**	89: Using Machine Learning to Predict and Avoid Malfunctions- A Revolutionary Concept for Condition-Based Asset Performance Management (APM) **Dr Naser Hashemnia**
13:54	134: Voltage Stability Studies for Distribution Networks: Assessing Load Dynamics **Ms Ruth Kravis**	157: Analysis of Harmonic Propagations in Albaha Power Network due to the Implementation of an MVDC Converter **Mr Thamer A. H. Alghamdi**	208: An Under Frequency Load Shedding Scheme Based on Zonal Voltage Stability **Mrs Arik Subhana**	97: SFRA based deterioration index for transformer condition monitoring **Mr Sreeram V**
14:06	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
14:15	138: Assessing the Operational Potential of Pumped-Storage Hydro Generators for Supporting the Grid Integration of Wind Farms **Ms Maiko Inagaki**	185: Analytical Derivation of Three Phase Inverter Harmonic Model Parameters **Mrs Samadhi Korale Liyanage**	226: The Economic Value of Improving Forecasting Accuracy in High Wind Penetrated Power Systems **Miss Wenqian Yin**	107: Physical asset management in the fourth industry revolution: mapping the literature for condition-based maintenance **Prof Behzad Samii**
14:27	175: Robust Power Regulation for Doubly Fed Induction Generator Based Wind Turbines **Mr Mostafa Karimpour**	188: Power Quality Assessment of Electric Vehicles on the Distribution Networks **Dr Anurag Sharma**	231: An intelligent control technique for stability assessment of modern power systems **Dr Saheed Gbadamosi**	75: Further insights into I-V and P-V curves of underperforming photovoltaic modules **Mr Mahantheshaiah Gangenapura Chandrashekharaiah**
14:39	178: Modelling of Grid-forming Inverters for Power System Applications in DIgSILENT PowerFactory **Mr Yifan Wu**	202: Comparison between Ideal and Frequency-dependent Norton Equivalent Model of Inverter-Based Resources for Harmonic Studies **Dr Zhida Deng**	236: Transmission Development Projects Assessment Using Simulated Market Prices **Mr Reymark Embate**	
14:47				Grouped Q&A (6 minutes)
14:51	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	
15:00	**Afternoon Break**			

	Control applications and energy storage 3	*Power quality and power electronic applications 2*	*Intelligent grid planning, operation and management 3*	*Energy management, economics and policies 1*
15:30	189: A Feedforward Neural Network Hydrogen Electrolyzer Output Regulator for Wind Power Control with Battery Storage **Mr Miswar Syed**	225: Power Quality Analysis of Colombian Local Distribution Systems with Photovoltaic Systems as Distributed Generation. Study Case: IEEE 13 Nodes System **Mr Luis Felipe Gaitan Cubides, Mr Juan David Gomez Ariza, Dr Andrés Emiro Diez**	239: Sizing Transformer Considering Transformer Thermal Limits and Wind Farm Wake Effect **Mr Zhongtian Li**	4: A Mining-Rewarding Mechanism for Peer-to-Peer Energy Trading Blockchain **Mr Jiawei Yang**
15:42	196: Adaptive Model Predictive-Based Load Frequency Controller using Unscented Kalman Filter **Mr Wang Weichao**	268: Optimal Allocation of Energy Storage System using PSO for Grid connected Wind system **Dr Saravanan R, Dr Sooriyaprabha S**	242: Battery energy storage placement in a solar PV based distribution system **Ms Priya Nayar**	31: Iterative Double Auction for Local Energy Trading in Microgrids: The Monash Microgrid Case Study **Dr Mohsen Khorasany**
15:54	203: Model Predictive Control for Wind Turbines to Enhance Low Voltage Ride Through capability **Dr Phuong Nguyen**	43: Impedance-based Stability Analysis of Current Controlled Alternate Arm Converter in dq Frame **Mr Shan Jiang**	249: A Derivation Method for Outage Work Grid Configurations under Uncertainty of Power Sources **A/Prof Yoshifumi Zoka, Miss Sae Shigemitsu**	78: Call-options in Peer-to-Peer Energy Markets **Dr Jaysson Guerrero**
16:06	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	264: Solar Power Prediction Using Iterative Network Pruning Technique for Microgrid Operation **Mr Sho Enomoto**	82: Network-Aware Distributed Electricity Markets: A Techno-Economic Comparative Study **Ms Carmen Bas Domenech**
16:15	217: Power Quality Control of Hybrid Wind/Electrolyzer/Fuel-Cell/BESS Microgrid **Mr Muhammad Maaruf**	113: Modelling Power Loss of High-Frequency Inductor under Distorted Current Waveforms **Mr Guoxing Wang**		
16:18			Grouped Q&A (12 minutes)	Grouped Q&A (12 minutes)
16:27	228: An LQR-based Robust Voltage Controller for Grid Forming Inverters during Blackstart **Mr Francis Chen**	118: Study on DC ice melting technology for distribution lines **Ms Rui Zhang**		
16:30			16: An Optimal Approach for Selection of Best-fit Wireless Communication Technology for Indian Smart Grid Installation **Mr Jignesh Bhatt**	
16:39	250: A Comparative study on state of charge estimation techniques for Lithium-ion Batteries **Mr Amit Aryal**	143: Observability Analysis for a Single-Phase Inverter Using Linear State-Space Equations **Mr Jeanpierre Valentín Acevedo**		
16:42			244: Communication Network Selection for Various Advanced Metering Infrastructure User Profiles in Indonesia **Ms Rizki Rahayani**	
16:51	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)		
16:54			14: Review of Classification Techniques to Resolve Big data Imbalance **Mr Bhavesh Shah**	
17:00	258: Evaluation of controller autotuning in a wind energy conversion system **Mr Augustus Elton**	152: Metal Object Detection of Inductive Power Transfer Systems Based on a Two-Port Network Model **Mr Bo Long**		
17:06			Grouped Q&A (9 minutes)	
17:12	71: Comparative Study of GFM-grid and GFL-grid in Islanded Operation **Mr Christian Sunjoh**	215: Five-Level Inverter With A Combined DC Voltage Balancing and Fault-voltage Mitigation Technique for Grid-Connected PV Energy Systems **Mr Kajanan Kanathipan**		
17:24	273: Power Flow Control for Standalone Solar PV with Energy Storage System **Mr Yunxun Mo**	235: Diode based HVDC Transmission System to Supply Energy to Rural Areas **Mr Ayaz Hussain**		
17:30				
17:36	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)		
18:00 - 19:00	**Women in Engineering, Student and Early Career Networking Event** ***(details to be confirmed)***			

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Tuesday, 07 December 2021

	M3 (Live-streamed)			
	Opening Plenary & Keynote Session 1			
09:00	Conference Opening (sponsored by Siemens) **Dr Jessica Bian, IEEE PES President**			
09:20	Conference Welcome **Prof. Debbie Terry, Vice Chancellor, The University of Queensland**			
09:30	Keynote Speaker (sponsored by EPEC) **Dr. Arshad Mansoor, EPRI President**			
10:15	**Morning Tea Break**			
10:45	**M1** **(audio & slides only)**	**M2** **(audio & slides only)**	**M3** **(audio & slides only)**	**Virtual**
	Renewable Generation and distributed energy resources 3	***Power quality and power electronic applications 3***	***Control applications and energy storage 4***	***Demand response and grid visibility 1***
10:57	23: Enabling More Solar in Distribution Network with an Automated Analysis Tool **Dr Lei Liu**	64: Harmonic Distortion Compliance Assessment and Renewable Generators: Issues and Proposed Update **Dr Umberto Cella**	22: Effects of Non-stationary Forced Oscillation on Electromechanical Modes **Mr Tossaporn Surinkaew**	38: Development of Demand Response Model for Providing Grid Flexibility Under the Influence of Consumers Participation Rate **Mr Muhammad Zakwan Bin Mohd Zahid**
11:09	39: Dynamic VAr Planning in Large-scale PV Enriched Power Grid **Mr Saeed Alzahrani**	85: Harmonic Balance Method and Its Application in Electrical Power and Renewable Energy Systems **Prof Junwei Lu**	187: Modular Multilevel Series Parallel Converter Prototype Design for Li-ion Battery Management Systems **Mrs Dulmini Karunathilake**	60: Application of Dynamic Quantizer to Load Control for Suppression of Power System Frequency Fluctuation **Mr Akimi Sato**
11:21	160: Large-Scale Renewable Energy Penetration Impact on System Stability **Mr Emad Areed**	86: Optimal d-STATCOM Placement using OpenDSS/Matlab **Dr Umme Mumtahina**	229: Fast Frequency Response Effect on RoCoF for Networks with Solar PV Integration **Mrs Indira Alcaide-Godinez**	105: Probabilistic CVR Assessment using Load Modelling in Renewable-rich Power Systems **Mr Mir Toufikur Rahman, Dr Kazi N Hasan**
11:30	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
11:42	184: Modular High-Frequency High-Power Transformers for Offshore Wind Turbines **Mr Weichong Yao**	87: A Comparative Study of Phase Locked Loops for Microgrid and Storage Converter Applications **Dr Umme Mumtahina**	120: Optimal bidding and scheduling strategies of grid-scale battery energy storage systems in day-ahead Australian electricity market **Mr Yunda Xu**	164: Analysis of Negative Electricity Price to Identify Demand Management Opportunity for Consumers in Renewable-rich Power Systems **Mr William Chen**
11:54	260: Emerging Frequency Control Mechanisms in IBR Dominated Power Systems **Mr Nicholas Maurer**	125: Detection of Point-on-wave for Voltage Sags by Hilbert Complex Plane **Mr Vinh Hao Le**	17: Combining Flexible Loads with Energy Storage Systems to provide Frequency Control **Prof Federico Milano**	13: An Edge-Cloud Scheduling of TCLs Based on Reinforcement Learning Method Incorporating Customer Priority **Mr Jun Lin**
12:06	32: Excessive Tap Operation Evaluation Approach for Unbalanced Distribution Networks with High Solar PV Penetration **Dr Feifei Bai**	Grouped Q&A (6 minutes)	41: Techno-Economic Impact of Partial String Failure in Multi-string Energy Storage Systems **Dr Sarmad Hanif**	37: Renewable Electricity Real-Time Pricing: Enhancing Grid's Stability Through Demand Side Management **Miss Kenza Meziati Sabour**
12:15	Grouped Q&A (9 minutes)		Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
13:15	**Lunch Break**			
13:27	***Renewable Generation and distributed energy resources 4***	***Power quality and power electronic applications 4***	***Demand Response and grid visibility 2***	***Microgrids, Standalone Power Systems, and Virtual Power Plants 1***
13:39	136: Investigating the Performance of Inverter Control Modes in High Solar PV Penetration Scenarios **Miss Neha Moturi**	119: Integration Of Solid-State Transformer Of Off-Shore Wind Turbine Systems **Prof Junwei Lu**	33: PMU-based condition monitoring of critical equipment in modern distribution networks **Dr Feifei Bai**	11: Resiliency-Aware Power Management of Microgrids using Agent-based Dynamic Programming and Q-learning **Ms Farshina Nazrul Shimim**
13:51	197: Impact of Active Current Ramping of Large-Scale PV Plant on the Dynamic Voltage Stability **Mr Abdulrhman Alshareef**	26: Extraction of Dynamic Frequency Response Characteristics and Modelling of Modern Air Conditioners **Dr Richard Yan**	271: Higher renewable energy integration in the grid with improved visibility and control by Medium Voltage distribution PMU data **Dr Jalil Yaghoobi**	66: Benchmarking Reinforcement Learning Algorithms on Island Microgrid Energy Management **Mr Siyue Zhang**
	156: Photovoltaic Output Nowcasting with Sky Images and its Applications **Dr Ruiyuan Zhang**	121: Suitable Power Transmission Topology for Future Australian Power Grids **Mr Hankun Cui**	57: Distribution System State Estimation with Losses in Radial MV and LV Networks **Mr Shubhankar Kapoor**	84: Optimal Power Sharing in DC Microgrid Under Load and Generation Uncertainties Based on GWO Algorithm **Mr Zaid Al-Tameemi**
	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)

14:00	227: Resilience Framework and Optimal Scheduling for DERs Factoring Uncertainties **Ms Lakshita Lakshita**	154: Metal Object Detection of Inductive Power Transfer Systems Based on a Two-Port Network Model **Mr Bo Long**	209: On the Optimal Placement of Micro-PMU in Distribution Networks Considering Phase Strings **Mr Manoj Prabhakar Anguswamy**	149: Generalized Droop Control For Mixed Impedance Microgrid **Mr Fahad Alshammari**
14:12	254: Curtailment and network voltage analysis study **Dr Baran Yildiz**	289: Practical and cost-effective voltage support of low-voltage distribution networks **Dr Mihai Ciobotaru**	213: An application of reinforcement learning to residential energy storage under real-time pricing **Mr Eli Brock**	159: Optimization of a microgrid for the new post-covid-19 pandemic energy demand using PV-wind-biogas in Brazil **Miss Ana Paula Alves Amorim**
14:24	257: Performance Analysis of Building Integrated Photovoltaic of High-rise Buildings in Urban Areas **Mr Anirudha Barman, Mr Muiz Mannan**	Grouped Q&A (6 minutes)	Grouped Q&A (6 minutes)	163: Unified Distributed Control of Grid-Forming and Grid-Feeding Converters in DC Microgrids with Average Voltage Regulation and Current Sharing **Mr Sheik M. Mohiuddin**
14:36	Grouped Q&A (9 minutes)			Grouped Q&A (9 minutes)
14:45	**Afternoon Tea Break**			
15:15	***Intelligent Grid Planning, Operation and Management 4***	***Smart Grids and Active Distribution Networks 3***	***Data analytics and cyber security 2***	***Control applications and energy storage 5***
	40: How is occupancy related to energy use in healthcare buildings? **Dr Lei Liu**	47: Demand-Side-Centric Voltage Regulation in Remote Area Communities **Mr Jiakang Yang**	63: Representative Load Profile Extraction and Baseline Estimation of Residential Consumers **Mr Zhong Xia**	67: Distribution Sysem Emergency Operation using a Mobile Vehicle-to-Grid Microgrid **Mr Yuki Sato**
15:27	52: Exploring options for new frequency control ancillary service markets in the Australian National Electricity Market **Mr Tim George**	86: Optimal d-STATCOM Placement using OpenDSS/Matlab **Dr Umme Mumtahina**	137: Broken Neutral Classification through Anomaly Detection using Features based on Voltage and Current Observations **Mr Wei Jian Chan**	92: A Proof of Concept for the Application of Second-Life Electric Vehicle Batteries as A Stationary Energy Storage System **Dr Amir Fazeli**
15:39	94: Intelligent Grid Business Transformation – how network businesses can navigate a journey of growing complexity and uncertainty **Ms Alrun Wigand**	108: Examination of Frequency Control of Large Active Distribution Network using Utility-Scale PV Unit **Ms Nimisha Upadhayay**	30: Source Authentication of Distribution Synchrophasors for Cybersecurity of Microgrids **Dr Yi Cui**	128: Characterization and Modelling Lithium Titanate Oxide Battery Cell by Equivalent Circuit Modelling Technique **Mr Chethan Parthasarathy**
15:51	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
16:00	179: Understanding the Impact of Minimum System Demand on Future System Stability - Queensland Case Study **Mr Jianing Chen**	117: A Real-time Control Approach to Maximise the Utilisation of Rooftop PV Using Dynamic Export Limits **Mr Gayan Lankeshwara**	277: Forecasting Transmission Forced Outages **Dr Ebby Thomas**	198: A Comparative Analysis of Centralised vs. Distributed Battery Energy Storage System in Providing Frequency Regulation **Mr Hassan Alsharif**
16:12	218: User-centred design of a grid health virtual reality tabletop for energy networks **Dr Stephen Snow**	172: Managing DER in Distribution Networks Using State Estimation & Dynamic Operating Envelopes **Dr Terese Milford, Dr Olav Krause**	247: Convergence of SCADA Gateway and Industrial Access Manager for DER Customer Benefit **Mr Marcus Steel**	222: Impact of Battery Energy Storage System Fed Super Grid Transformer on Distance Protection **Mr Eko Prasetyo**
16:24	114: Wide Area Monitoring Protection and Control for enhancing security of emerging power systems **Dr Sudarshan Dahal**	276: From passive distributed solar PV connections to active DER enablement **Mr Peter Kilby**	253: Plan2Defend: AI Planning for Cybersecurity in Smart Grids **Mr Taejun Choi**	230: Energy Storage Systems in Residential Applications for Optimised Economic Operation: Design and Experimental Validation **Mr Lampros Zygiakis**
16:36	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
16:45	61: Artificial intelligence based power grid planning **Mr Manjunath D C, Miss Niveditha S**	238: An Active Distribution Network Planning Model For Distributed Energy Resources and Distribution Network **Mr Adnan Al-Bukhaytan, Dr Ali Ala-Awami**	88: Cybersecurity for Electricity Utilities: Where to begin? **Mr Martin Van Der Linde**	246: Frequency Stability Supports from Battery Storage with Virtual Synchronous Machine Control **Mr Mehdi Ghazavi Dozein**
16:57	272: Operational challenges faced and mitigation measures taken for Renewable Energy integration in India with the planned transmission system **Mr Rahul Shukla**	245: Dual-Objective MPC of Community Energy Storage in LV Distribution Feeders with Rooftop Solar PV **Mr Obaidur Rahman**	248: Convergence of SCADA Gateway and Industrial Access Manager for DER Customer Benefit **Mr Marcus Steel**	262: Impact of high renewable penetration on storage requirements for Australia **Mr Raheel Shaikh**
17:09	279: An Optimization Framework for Power Infrastructure Planning **Ms Nina Wiedemann**	278: Dynamic closed-loop voltage control under limited network visibility in a South Australian distribution network **Dr Julio Braslavsky**	192: Cybersecurity for Power Grid SCADA: DNP3 Secure Authentication **Mr Andrew West**	73: Efficiency of batteries **Mr Mansur Sulaiman**
17:21	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
19:00	**Conference Dinner** *Plaza Gallery, BCEC*			

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Wednesday, 08 December 2021

	M3 (Live-streamed)			
08:30	Keynote Speaker (Sponsored by Noja Power) **Dr Imre Gyuk, US Department of Energy**			
09:15	Role of battery storage in QLD's future energy landscape (Sponsored by Energy Queensland) **Mr Peter Price, Energy Queensland**			
09:45	**Morning Break**			
10:15	Leadership Forum **Prof Paul Simshauser, AM, Dr Alex Wonhas, Mr John Cole** **Moderator: Mr Mark Paterson**			
12:00	**Lunch Break**			
	M1 **(audio & slides only)**	**M2** **(audio & slides only)**	**M3** **(audio & slides only)**	**Virtual**
	Condition monitoring and diagnostics of power assets 2	***Energy management, economics and policies 2***	***Renewable generation and distributed energy resources 5***	***Data analytics and cyber security 3***
12:45	133: Assessment of Effect of Winding Geometry on Thermal Performance of Retrofilled Transformers **Mr Anupam Dixit**	45: Model Predictive Energy Management System in presence of Dynamic Pricing **Dr Rasoul Garmabdari**	219: The Magic Pudding: Delivery model innovation for hybrid systems **Mr Bart Sedgwick**	148: Weighted Linear Regression based Data Analytics for Decision Making after Early Failures **Prof Robert Ross**
12:57	151: Study on Down-sizing Inverter Transformers in Solar Farms **Mr Xin Zhong**	153: P2P Negawatt Trading: A Potential Alternative to Demand-side Management **Mr Imran Azim**	232: From Green to Amber: is Australia's National Electricity Market signalling a financial warning for wind and solar power? **Mr Nesanthan Srianandarajah**	155: A Regional Integrated Energy System Load Prediction Method Based on Bayesian Optimized Long-Short Term Memory Neural Network **Mr Ang Xuan**
13:09	251: XLPE Insulation Degradation Under High Frequency Stresses **Mr Thanuja Gawasingha Arachchige**	240: On-Demand Batteries as a Peer-to-Peer Service **Mr Alexander Balson**	287: Minimum demand in the Australian National Electricity Market: Challenges and Potential Solutions **Dr Nadali Mahmoudi**	205: Impact on Estimation Accuracy of Training Data used in CNN-based Solar Irradiance Estimation Method **Mr Kento Iida**
13:21	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
13:30	297: Vibration profile comparison of grid connected and battery connected transformers **Mr Jakob Pallot**	50: A Joint Chance Constrained Economic Dispatch Model Considering Wind Generation and Dynamic Line Rating **Mr Lei You**	263: Development of A New LSF-based Algorithm for Optimal Placement and Sizing of Distributed VRE **Mr Nafis Salman Brahmantino**	255: Application of Neural Network to Locate Non-Technical Losses in Optical Satellite Images **Mr Matheus Mello Jcques**
13:42	168: Condition Monitoring of Overhead Conductors in the Australian Electricity Distribution Network **Dr Lakshitha Naranpanawe**	100: An investigation into alternate Causer Pays methodologies for the recovery of Regulation FCAS costs in the National Electricity Market **Mr Joel Bulow**	212: Probabilistic intraday forecasting of solar power using Monte Carlo dropout and deep neural networks **Mr Oliver Doelle**	261: Correlation Analysis of Wind Farms through Short-term Probablitic Analysis **Mr Shichen Yang**
13:54	174: Predictive End of Life Modelling for Wooden Utility Poles **Ms Caitlin Nicholas**	282: Integration costs of variable renewables in the Australian National Electricity Market (NEM): A full system modelling approach **Mr Gabriel Rioseco**	281: Distributed Energy Resources Participation in the Australian National Electricity Market as a Price-taker **Miss Yi Huang**	106: Light-weight and Robust Network Intrusion Detection for Cyber-attacks in Digital Substations **Mr Mohamed Elrawy**
14:06	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
14:15	95: A Similarity Measures Based Generic Detection Method for Waveform Abnormality Identification of Distribution Network **Mr Junya Luo**	93: Hour-ahead Energy Resource Management for EV Aggregator Analysing Local Market Impact **Dr Joao Soares**		169: Time Delay Attack Detection using Recurrent Variational Autoencoder and K-means Clustering **Mr Shahram Ghahremani**
14:27	183: Intelligent Digital Assistants, the future of maintenance for renewable energy **Mr George Mathew**	165: Reward Structures for Prosumers Participating in Virtual Power Plants **Mr Zizheng Ren**		204: Vulnerability Assessment of False Data Injection Attacks on Optimal Power Flow **Dr Rajvir Kaur**
14:39	Grouped Q&A (6 minutes)	294: Impact Analysis About Introducing CCS for CO2 Emissions Reduction **Dr 意誠 周**		243: Impact analysis of false data injection attacks in transactive energy market-based micro-grid systems **Mrs Rumpa Dasgupta**
14:51		Grouped Q&A (9 minutes)		Grouped Q&A (9 minutes)
15:00	**Afternoon Break**			

	Microgrids, standalone power systems, and virtual power plants 2	*Electric Transportation and Impacts on Grid*	*Demand response and grid visibility 3*	*Intelligent grid planning, operation and management 5*
15:30	49: Modeling of diesel engines including start-up process in renewable integrated microgrid **Mr Aobo Zhou**	223: A Feasibility Assessment of Transitioning to Zero Emission Buses in Queensland, Australia **Dr Dia Adhikari Smith**	145: An Intelligent Event Detection Framework To Improve Situational Awareness In PMU Power Distribution Networks. **Mr David Amoateng**	280: Real-Life Fast Frequency Response Provision from Grid-Scale Solar Farms and Batteries: Australian Experience **Dr Ahvand Jalali**
15:42	181: Practical experience with addressing minimum demand and distributed energy resource intermittency in isolated networks through dynamic DER integration **Mr Vitali Belokoskov**	12: Impact Analysis About Introducing CCS for CO2 Emissions Reduction **Dr 意誠 周, Prof Yosuke Nakanishi**	241: A New Distribution System State EstimationTechnique Based on Direct Approach in Networks with Limited Measurements **Mr Amin Mokaribolhassan**	283: SCR and Inertia based Optimization for SynCons Utilization in Weak Grids with Renewable Integration **Mr Sajjad Hadavi**
15:54	207: A Model Predictive Control Volt/VAr Management System for the Froan network **Dr Johannes Maree**	70: EV Aggregator's Potential to Play a Role in Providing Flexible Source in Japan **Mr Tomo Takahashi**	266: Comparative Investigation for Robust and Efficient Distribution System State Estimation Algorithm: Case Study Considering Large Network **Mr Md Naz Niamul Islam**	284: SmartGridToolbox: A Library for Simulating Modern and Future Electricity Networks **Dr Dan Gordon**
16:06	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)	Grouped Q&A (9 minutes)
16:15	265: Techno-Economic Analysis of On-grid Transition: A Case Study of Remote Villages in Sarawak **A/Prof Chin Kim Gan**	102: Study of Unbalance Reduction in 25kV AC Traction System by Different Transformer Configurations **Ms Varsha Singh**	275: Novel Bespoke Hardware for Single Board Computer based Phasor Measurement Unit implementation **Mr Marcus Steel**	285: SmartGridToolbox: a Library for Simulating Future and Smart Electricity Networks **Dr Dan Gordon**
16:27	176: Integrating Power Outputs of Distributed Energy Resources through a Virtual Power Plant for Providing Frequency Support to the Grid **Ms Sumaiya Tasnim**	144: Transactive Energy for Smart Charge: Coordination of Renewable Generation and EVs Smart Charging **Mr Sebastian Montes De Oca**	286: Community UPS Battery Power Pool using quasi-Demand Response method by low-cost IoT Technologies **Mr Marcus Steel**	288: Intelligence is not enough, smart grids need to conquer value alignment to benefit society **Mr Joe Wyndham**
16:39	201: A control strategy for seamless transition of microgrid from grid connected to islanded mode **Mrs Radhu Radhakrishnan Nair**	211: An Overview and Prospects of EVs in Pakistan: A Proposal of RE Based EV Charging Station at Jamshoro **Miss Maha Ansari**	Grouped Q&A (6 minutes)	Grouped Q&A (6 minutes)
16:51	Grouped Q&A (9 minutes)	191: Modular Approach Towards Battery Swapping: Time and Technical Parameter Quality Trade-Off **Mr Muhammad Osama Tarar**		
17:03		Grouped Q&A (12 minutes)		
	M3 (Live-streamed)			
17:00	**Closing Plenary**			
	Awards Presentation			
17:15	Closing Address			