



**Università
degli Studi
di Palermo**



Italy Section



BLORIN 2022 Workshop
2-3 September 2022

September 2nd 2022

Venue: Hotel La Torre – Mondello - Palermo

Registration

8:30

Plenary

9:00-9:20

'The BLORIN project: delivering energy services to the grid for increased and decentralized RES integration'. E. Riva Sanseverino - General Chair

'The BLORIN blockchain platform for tracing power flows' P. Gallo – General Chair

Presentations

09:20-11:15

Chair G. Sciumè; Co-chair S. Bruno

“Blockchain based projects for flexibility management and tracing in industry: technical and regulatory challenges”

Bosco F et al., **A blockchain based platform for network flexibility management in power distribution: a real application scenario**

Cioara T. et al., **Decentralized Demand Response in Energy Communities using Blockchain**

Calvagna A. et al., **Providing Trust in a Dynamic Distributed Energy Production Scenario by means of a Blockchain**

Tina G M et al, **Aggregation Platform to Maximize the Utilization of Distributed Energy Resources' Flexibility**

Thomas, D., **Blockchain Applications and Roadblocks in the Energy Transition: Joint Research Centre Testing Campaigns and Policy Recommendations**

Stagnaro C, **Innovation, Regulation, and Competition in the Electricity Industry: The Challenge Of, and To, Blockchain**

Thomas, D., **Blockchain Applications and Roadblocks in the Energy Transition: Joint Research Centre Testing Campaigns and Policy Recommendations**

Carlos A Rufino, **Blockchain-Based Internet of Things (IoT) System for Fuel Tracking**

Carlos A Rufino, **Blockchain-Based Internet of Things (IoT) System for Locomotive Fuel Monitoring and Maneuver Coordination**

Coffee Break

11:15 - 11:30

Presentations

11:30-13:15

Chair P Loreti, Co-chair L Bracciale

“Cybersecurity in blockchain platforms”

Bracciale L. et al., **Privacy in Blockchain-based Smart Grids**

Funk F. **'A privacy-preserving, sealed double-auction smart contract for Local Energy Markets**

Raso E. et al., **Performance Evaluation of Cryptographic Schemes for Blockchain Security of Smart Grids**



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“Local energy markets and energy communities”

Galici M et al. **Distributed Ledger based Management of Local Energy Markets with a Federated Learning approach**

Terruggia R., **Blockchain solutions for Local Energy Market**

Martirano L. **Blockchain-based Democratic Power Sharing in Building-scale Energy Communities**

Saadatmandi S. et al., **Exploiting Blockchain for Smart Charging of Electric Vehicles: A Proof of Stake Algorithm**

Lunch

13:15 - 14:15

Keynote

14:15-14:30

“Role and support instruments of the EIC to enable demand response and energy systems flexibility”

Marco Pantaleo (EIC Programme Manager - Energy Systems and green technologies)

“Optimal Charging Strategies of Electric Vehicles for Flexibility”

14:30-15:00

Quoc Tran Tuan (Full professor and Director at Director of Research at CEA Scientific Manager for smart grid (CEA-Liten) - CEA INES – Grenoble France)

Presentations

15:00-16:30

Chair N Q.Nguyen, Co-chair A Vasile

“Challenges and solutions for RES penetration in microgrids and islands”

Micallef, A. **Generation Performance Analysis for Installed Photovoltaic Systems on the Maltese Islands**

Rosini A. et al. **Can Frequency Be Used to Achieve Communication-Less Primary Control in Photovoltaic-Storage Islanded Microgrids?**

Papageorgiou P.G. et al. **Enhancing stability of DC microgrids employing SMES-battery hybrid energy storage system**

De Tuglie E., **Minimization Of Microgrid Impact On Distribution Network Systems through BESS Real-Time Control**

Palma A.L. **Application of a demand-response-optimized electrical load profile to a plant supplying an energy micro-community**

Adinolfi G, **Experimental Validation of Energy Management Strategies in AC/DC Hybrid Networks**

Bruno S A **Dynamic Model of the Favignana Island Non-Synchronous Power System for Power Hardware-in-the-Loop Tests**

Coffee Break

16:45 - 17:00

Presentations

17:00-18:30

Chair R Musca, Co-chair A Bonfiglio

“Demand Response and RES penetration in modern urban and industrial systems”

Lombardi P. et al., **Blockchain application within Net-Zero Energy Factories. A cost-benefit analysis for a German carpentry**

N Q.Nguyen **Investigation of Technical Potential of Rooftop Solar Power in Central Highlands, Vietnam**

N Q.Nguyen **Renewable Energy in Central Highland, Vietnam: Challenges, Barriers in Power Transmission Grid**

V Mathieu **From Probabilistic PV Power Forecasting to Stochastic Programming: a Method for Microgrid Planning Under Uncertainty**

Castelli G, **Urban Intelligence: toward the Digital Twin of Matera and Catania**

“Cost-Benefit analyses and enabling conditions for energy communities”



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Branchini P et al., **Blockchain technology: energy community and beyond**

Caliano M. et al, **Enabling conditions for the deployment of integrated local energy communities in Europe**

Befani G et al. **Secure and effective platform for field devices using blockchain in transition electrical grids.**

Ferruzzi G et al., **Optimal strategies for the conflict management between DSO and microgrids**

Poster Session

18:30-19:00

Chair A Vasile

Adinolfi G., **Experimental validation of energy management strategies in AC/DC hybrid networks during failure events**

Fabozzi S. et al., **ENEA SEM: design of a test-bed for research, testing and development in Smart Multienergy**

Longo S et al., **Life Cycle Assessment of flow-redox cells: a case study**

Adinolfi G et al., **DC Grids for Supporting AC Power System during Failure Events: Experimental Testing of a Urban Case Study**

Cirrincone L., **Foster carbon-neutrality in the built environment: a Blockchain-based approach for the energy interaction among buildings**

Ali Q. **Comparing the Impact of Electric Vehicles on Urban and Insular Networks**

Bonomolo M, **Methods to Predict Energy Use for Lighting Systems: an Overview and an Application on a Real Case Study**

Artale G, **Innovative solutions for the integration of renewable energies on Tunisian and Sicilian electrical grids**

Candela R., **A remuneration model of energy community members in Italy**

Favuzza S, **Energy Management System in Grid-Connected Small Scale AC/DC Microgrids Including Renewable Sources and Flexible Loads**

Balistreri S, **Innovative solutions for energy transitions of small islands: the case of a hybrid photovoltaic system at the ENEA Climatic Observatory in Lampedusa island**

Aloisio D, **Development of a GIS based planning tool for electrolyzers optimal allocation**

Campagna N, **Challenges for the Goal of 100% Renewable Energy Sources to Fit the Green Transition**

Curto V., **Stability Analysis in a Vietnam Small Island for the Deployment of a Nearshore Wave Power Plant**

Vizza P, **IoT Devices and Smart Appliances for Flexibility Services in Unical Campus**

Cocktail

19:00



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SICILIA 2014-2020



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BLORIN 2022 Workshop
2-3 September 2022

Date: September 3rd 2022

Venue: Hotel La Torre – Mondello - Palermo

Registration

8:30

Saluto ed Apertura

9:00-9:30

Saluto del Magnifico Rettore dell'Università di Palermo, Massimo Midiri

Apertura dei lavori di Gianni Silvestrini (Exalto) **“Comunicare l'innovazione. Il progetto BLORIN”**

Tavola rotonda su “Il dialogo scienza-politica sulla blockchain per la transizione energetica”

9:30-13:00

Moderazione ed introduzione

Sergio Ferraris, Direttore della rivista bimestrale edita da Legambiente e Kyoto Club QualEnergia, dedicata al mondo dell'energia

Prima parte - Tavola rotonda su “Le applicazione blockchain per la transizione energetica: sfide e opportunità”

9:30-10:30

Giuseppe Bianchi, Professore Ordinario di Telecomunicazioni *Tor Vergata* **Infrastrutture digitali per l'energia: sicurezza, fiducia e ruolo delle blockchain**

Carlo Stagnaro, Direttore ricerche e studi *Istituto Bruno Leoni*/Carlo Amenta, *Commissario Governativo ZES* **La difficile interazione fra innovazione digitale, regolazione e governance**

Eleonora Bettenzoli, Vicedirettore Direzione Mercati Retail e Tutele dei Consumatori di Energia *ARERA* **Il punto di vista del regolatore sulla tecnologia blockchain per il mercato dei servizi energetici e per le transazioni energetiche**

Alberto Biancardi, Direttore studi, monitoraggio e relazioni internazionali *GSE* **I sistemi di incentivazione per gli utenti per la transizione energetica**

Coffee Break

10:30-11:00

Seconda parte - Tavola rotonda su “Le applicazione blockchain per la transizione energetica: sfide e opportunità”

11:00-12:00

Giorgio Graditi, Direttore Dipartimento Tecnologie Energetiche e Fonti Rinnovabili *ENEA* **Esperienze di successo e casi d'uso delle tecnologie ICT nel settore ENERGY**

Emilio Fortunato Campana, Direttore Dipartimento Ingegneria, ICT e Tecnologie per l'Energia e i Trasporti *CNR* **Esperienze di successo e casi d'uso delle tecnologie ICT nelle Smart cities**

Morena Ruscio, Innovation Specialist - Funzione Sviluppo e Innovazione *GSE* **La tecnologia Blockchain a sostegno della transizione energetica: i casi d'uso del GSE**





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ITALY CHAPTER



Power & Energy Society®
Italy Chapter - PE31

Antonio Martini, Dirigente generale del *Dipartimento dell'Energia - Regione Siciliana* **Le comunità di energia rinnovabile e solidali: nuovo paradigma della sostenibilità**

Tavola rotonda su 'Il dialogo scienza-politica per la transizione energetica'

12:00-12:50

Moderazione ed introduzione

Alessandro Allegra – University College London, Dipartimento di Scienza, Tecnologia e Società' (STS)

Renzo Tomellini, Capo segreteria tecnica del ministro della Transizione Ecologica *Ministero della Transizione Ecologica*

Gianni Giroto, Presidente della *10ª Commissione permanente del Senato* (Industria, commercio, turismo)

Carmelo Frittitta – Dirigente generale del *Dipartimento Attività Produttive, Regione Siciliana*

Q&A

Chiusura dei lavori Eleonora Riva Sanseverino, Pierluigi Gallo

12:50-13:00

Light Lunch

13:00



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