

# Edoardo Patti – Curriculum Vitae

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## Personal Information

First Name: Edoardo

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Address (work): Dep. of Control and Computer Engineering (DAUIN), Politecnico di Torino, Cso Duca degli Abruzzi 24, 10129 Torino, Italy

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Telephone: +39 11 564 7031 (work)

Citizenship: Italian

Sex: male

Date (dd, mm, yyyy) and place of birth: 23, 04, 1983 - Palermo, Italy

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## Work Experiences

November 2019 – Present Politecnico di Torino (Torino) Italy

### Assistant Professor with Tenure Track (RTD-B)

Research Activity focused on i) Ubiquitous Computing, ii) Internet of Things, iii) Service Oriented Architectures, iv) Web Services, v) Middleware technologies, vi) Distributed Systems, vii) Smart City, viii) Smart Grid, ix) Augmented and Virtual Reality, x) Mobile computing

February 2018 – November 2019 Politecnico di Torino (Torino) Italy

### Assistant Professor (RTD-A)

Research Activity focused on i) Ubiquitous Computing, ii) Internet of Things, iii) Service Oriented Architectures, iv) Web Services, v) Middleware technologies, vi) Distributed Systems, vii) Smart City, viii) Smart Grid, ix) Augmented and Virtual Reality, x) Mobile computing

January 2014 – February 2018 Politecnico di Torino (Torino) Italy

### Postdoc Research Fellow

Research Activity focused on i) Ubiquitous Computing, ii) Internet of Things, iii) Service Oriented Architectures, iv) Web Services, v) Middleware technologies, vi) Distributed Systems, vii) Smart City, viii) Smart Grid, ix) Augmented and Virtual Reality, x) Mobile computing

May 2011 - February 2012 Neohm Componenti Settimo Torinese (Torino) Italy

### ICT Consultant

ICT Consultant for the design and development of Wireless Sensor Network firmwares

May 2005 – Jul 2005 Municipality of Cattolica Cattolica (Rimini), Italy

### Intern at Municipality of Cattolica (Rimini)

Assistant system administrator: administration of local area network and server data center.

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## Education

2011-2014 Politecnico di Torino Torino, Italy

**PhD in Systems and Computer Engineering** (Ingegneria Informatica e dei Sistemi)

Official length of the program (yy): 3

Date of award (dd,mm,yy): 21/03/2014

PhD Thesis: Software solutions for Energy Efficient Smart Environments

2007–2010 Politecnico di Torino Torino, Italy

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**MSc in Computer Engineering** (Laurea Specialistica in Ingegneria Informatica)

Official length of the program (yy): 2

Date of award (dd,mm,yy): 10, 11, 2010

Score: 103/110

MSc Thesis: Design and implementation of a Wireless Sensor Network for monitoring cell cultures in vitro (Progetto e realizzazione di una Wireless Sensor Network per il monitoraggio di colture cellulari in vitro)

2001–2007                      Università degli Studi di Palermo                      Palermo, Italy

**BSc in Computer Engineering** (Laurea in Ingegneria Informatica)

Official length of the program (yy): 3

Date of award: (dd,mm,yy): 18, 07, 2007

Score: 96/110

BSc Thesis: Passive localization in Wireless Sensor Networks (Localizzazione passiva nelle reti di sensori wireless)

Visiting student at the Universidad de La Coruña, Spain, during the academic year 2004/2005 with the Erasmus Project

1996-2001                      Liceo Classico G. Garibaldi                      Palermo, Italy

**High School Diploma** (Diploma di Maturità Classica - PNI)

Official length of the program (yy): 5

Date of award (dd,mm,yy): 12, 07, 2001

Score: 78/100

**Visiting Experience**

October 2013-March 2014    University of Manchester    Manchester, United Kingdom  
**Postgraduate Visiting Researcher at the Electrical Energy and Power Systems Group**

Research Activity focused on Smart Grid and Electrical Distribution Grid

**Languages**

- English: proficient user. IELTS certification.
- Spanish: proficient user.
- Italian: mother tongue

**Teaching/Tutoring Activities**

Member of PhD committee in Urban and Regional Development (2019-present)  
Member of the extended PhD committee in Urban and Regional Development (2018-2019)

Courses:

- Tecnologie per IoT, Italian, 2019 – present (BS).
- Laboratorio di Sistemi Informativi Aziendali e IoT, Italian, 2020 (BS)
- Fondamenti di Sistemi Informativi Aziendali e IoT, Italian, 2021 – present (BS)
- Programming for IoT applications, English, 2019 - present. (MS)
- IoT platforms for spatial analytics in smart energy systems, English, 2019-present (PhD)
- Introduction to IoT, Vodafone IoT Academy, English 2020, – present

Teaching Assistant for the courses:

- Computer science (Basic of C Programming), Italian, 2011 – 2016 (BS)
- Programming for IoT applications, English, 2015 – 2019 (MS).
- Machine Learning for IoT, English, 2020 – present (MS)
- Conoscenza del patrimonio costruito nell'epoca dei cambiamenti climatici, Italian, 2020 – present (MS)
- IoT platforms for spatial analytics in smart energy systems, English, 2020-2021 (PhD)
- BiM and interoperability for SMART Cities processes and Tools, English,

2020-2021 (PhD)

Masters apprenticeship:

- Master DIPS Digital Innovation for the Public Sector (Innovazione digitale per il settore pubblico), course: "Automazione, sensori e IoT", 2020
- Master in Alto apprendistato in Industrial Operations, course: "Automazione, sensori e IoT", (two editions: 2021 and 2022)
- CIM 4.0 Academy, course: "Tecnologie per IoT", (three editions: 2020, 2021 and 2022)
- Master in Additive Manufacturing, course: "ICT platforms for facilitating the integration of Additive Manufacturing in traditional manufacturing processes", (two editions: 2021 and 2022)
- Master in Manufacturing 4.0, course: "Industry 4.0 enabling technologies", (two editions: 2021 and 2022)
- Master in New Roles School Smart Automation, course: "Specializing Track - Automation Engineer Expert", (two editions: 2021 and 2022)
- Master in Insurance Innovation, course: "IoT and Cloud, 2022"
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#### Contribution to European and National funded research projects

Coordination of ICT scientific activities and management of all the Smart City research projects of EDA group in Politecnico di Torino.

European Projects:

- **SERENA**, VerSatilE plug-and-play platform enabling remote pREdictive maintenance 2017 – 2020 (Scientific coordinator for Polito)

- **SEEMPubS**, *Smart Energy Efficient Middleware for Public Spaces*, FP7, 2010-2013

- **DIMMER**, *District Information Modelling and Management for Energy Reduction*, FP7, 2013-2016 (Task Leader).

- **Tribute**, *Reducing the gap between estimated and measured building performance*, FP7, 2013-2017

- **FLEXMETER**, *Flexible smart metering for multiple energy vectors with active prosumers*, H2020, 2015-2017 (Work Package leader, Task Leader).

- **RURITAGE**, *Rural regeneration through systemic heritage-led strategies*, H2020, 2018-2022

- **Shelter**, *Sustainable Historic Environments hoListic reconstruction through Technological Enhancement and community based Resilience*, H2020, 2019-2023

National and regional projects:

- **EEB**, *Edifici a Zero Consumo Energetico in Distretti Urbani Intelligenti*, 2013-2015

- **EDEN**, *Energy Data ENgagement*, 2014-2015.

- **Disloman**, *Dynamic Integrated ShopfLoor Operation MANagement for Industry 4.0*, 2016 - 2019

#### Contracts

- **Image analytics for in-situ defects detection in Additive Manufacturing** Contract with FCA, 2019

- **Quality assurance for additive manufacturing** Contract with FCA, 2020

- **Integrated framework for quality assurance of additive manufacturing** Contract with FCA, 2021

- **Realizzazione di algoritmo per la stima dello Stato di Salute delle batterie Li-ion, con particolare riferimento alle applicazioni a bordo veicolo** Contract Edison, 2022

## Reviewer Activities

Peer reviewer for Italian scientific evaluation assigned by MIUR – Italian Ministry of Education, University and Research (officially registered at <https://reprise.cineca.it/>):

Reviewer for several peer reviewed international conferences and journals.

### Journals:

- the “IEEE Transactions on Smart Grid”, IEEE
- the “IEEE Transactions on Industrial Informatics”, IEEE
- the “ACM Transactions on Design Automation of Electronic Systems”, ACM
- the “ACM Transaction on Embedded Computing Systems”, ACM
- the “IEEE Systems Journal”, IEEE
- the “IEEE Internet of Things Journal”, IEEE
- the “IEEE Access”, IEEE
- the “Journal of Internet Services and Applications”, Springer.
- the “Automation in Construction”, Elsevier.
- the “Sustainable Cities and Society”, Elsevier.
- the “Sustainable Production and Consumption”, Elsevier.
- the “Journal of Energy and Storage”, Elsevier.
- the “Energy Research & Social Science”, Elsevier.
- the “Journal of Energy Storage”, Elsevier.
- the Journal of “Future Generation Computer Systems”, Elsevier
- the “International Journal of Sustainable Built Environment”, Elsevier
- the “Simulation modelling practice and theory”, Elsevier
- the “Applied Sciences”, MDPI.
- the “International journal of distributed sensor network”, Hindawi.

### Conferences:

- the IEEE “International Conference on Smart Energy Systems and Technologies (SEST)” (2018)
- the “First New Generation of Circuits and Systems Conference” (2017)
- the “Design Automation Conference (DAC)” (2012).
- the IEEE Conference “Design, Automation & Test in Europe (DATE)”, (2014).
- the IEEE conference on “Distributed Computing Systems (ICDCS)”, (2015).
- the “IEEE International Symposium on Circuits and Systems (ISCAS)” (2012).

## Contribution to organization of activities

Member of coordination committee of Interdepartmental Centre "Energy Center" (<http://www.energycenter.polito.it>), 2020-present.

Editorial Board member of:

- Guest Editor for the Special Issue "IoT Technologies for Smart Cities", MDPI Electronics ([https://www.mdpi.com/journal/electronics/special\\_issues/IoT\\_smart\\_cities\\_1](https://www.mdpi.com/journal/electronics/special_issues/IoT_smart_cities_1))
- Topic Editor for MDPI Electronics ([https://www.mdpi.com/journal/electronics/topic\\_editors](https://www.mdpi.com/journal/electronics/topic_editors))
- Co-editor for the ACM SIGBED Review - Special Issue on Embedded Operating Systems Workshops (EWiLi'17 and EWiLi'18) (<https://dl.acm.org/citation.cfm?id=3373400&picked=prox>)
- Field editorial board members for Entrepreneurship and Sustainability Issues (SP'16/ESI journal, <http://jssidoi.org/jesi/international-editorial-board>)

Technical Program Committee member of:

- ACM/IEEE International Symposium on Low Power Electronics and Design (ISLPED) (2020)
- ACM/IEEE International Symposium on Low Power Electronics and Design (ISLPED) (2019)
- IEEE International Conference on Electronics Circuits and Systems (ICECS)

- (2018)
- International Conference on “Smart Cities and Green ICT Systems (SMARTGREENS)” (2020)
- International Conference on “Smart Cities and Green ICT Systems (SMARTGREENS)” (2019)
- International Conference on “Smart Cities and Green ICT Systems (SMARTGREENS)” (2018)
- International Conference on “Circuits, System and Simulation (ICCS)” (2017)
- IEEE International Conference on “Environment and Electrical Engineering (IEEE EEEIC)” (2017)
- IEEE International Conference on “Environment and Electrical Engineering (IEEE EEEIC)” (2016)
- SMART 2017 International Conference
- SMART 2016 International Conference
- SMART 2015 International Conference
- Sustainable Places 2016
- Sustainable Places 2015

Chairman:

- Session chair at 6th International Conference on Smart Cities and Green ICT Systems (SMARTGREENS 2017), Porto, Portugal, 22-24 April 2017.
- Session chair at IEEE International Symposium on Circuits & Systems (ISCAS 2018), Florence, Italy, 27-30 May 2018.
- Chair of Special Session “*Design, Automation, Simulation Methodologies and Tools for Connected and Collaborative Cyber-Physical Systems*” at IEEE International Symposium on Circuits & Systems (ISCAS 2018), Florence, Italy, 27-30 May 2018

Organization of events:

- Program Chair at EWLi 2018, the embedded operating system workshop, 4 October, 2018, Torino, Italy.
- Corresponding organizer of the workshop “*Rising ICT solutions for Smart Grids as multi-energy systems (ICT4SmartGrid 2020)*” at 44<sup>th</sup> IEEE Annual Computer Software and Applications Conference (COMPSAC 2020)
- Special Session “*Design, Automation, Simulation Methodologies and Tools for Connected and Collaborative Cyber-Physical Systems*” at IEEE International Symposium on Circuits & Systems, May 27-30, 2018, Florence, Italy.
- Tutorial “*Smart metering architecture to enable and simulate novel services in smart grids*” at IEEE International Conference on Innovative Smart Grid Technologies IEEE ISGT Europe, September 26-29, 2017, Torino, Italy

**Talks and seminars**

Invited seminars and lectures:

- *IoT Platforms for Industry 4.0*, seminar at Replay Netcamp Tech Trends 2017, 9 November 2017, Torino, Italy.
- *Smart metering architecture to enable and simulate novel services in smart grids*, Tutorial at IEEE International Conference on Innovative Smart Grid Technologies IEEE ISGT Europe, September 26-29, 2017, Torino, Italy
- *Distributed Software Infrastructure for General Purpose Services in Smart Grids*, University of Manchester, January 2014, Manchester, UK.
- *Power Aware, – Lights Off, Brains On*, presentation at 2017 Conference on Energy Grid Cybersecurity, March 3-5 2017, Washington DC, USA.
- *Distributed monitoring and advanced measurements in smart cities* at IEEE International Forum Smart Grids for Smart Cities, November 26-28, 2018, Genk, Belgium

Conference speeches:

- *A Service Oriented Solution for Interoperable Networks in Smart Public Spaces*, full paper presentation at Congresso Nazionale AICA 2011, Turin,

15-16-17 Novembre 2011.

- *Towards a software infrastructure for district energy management*, full paper presentation at 12th IEEE International Conference on Embedded and Ubiquitous Computing (EUC 2014), Milan, Italy 26-28 August 2014.
- *multiFLEX: Flexible Multi-Utility, Multi-Service Smart Metering Architecture for Energy Vectors with Active Prosumers*, full paper presentation at 4th International Conference on Smart Cities and Green ICT Systems (SMARTGREENS 2015), Lisbon, Portugal, 20-22 May, 2015.
- *Flexible smart metering for multiple energy vectors with active prosumers*, full paper presentation at CINI Annual Workshop on ICT for Smart Cities and Communities (I-Cities 2015), Palermo, 29-30 October 2015.
- *Distributed software infrastructure for evaluating the integration of photovoltaic systems in urban districts*, paper presentation at 5th International Conference on Smart Cities and Green ICT Systems (SMARTGREENS 2016), Rome, Italy, 23-25 April 2016.
- *IoT platform for Smart Cities: requirements and implementation case studies*, full paper presentation at 2nd IEEE International Forum on Research and Technologies for Society and Industry Leveraging a better tomorrow (RTSI 2016), Bologna, Italy, 7-9 September 2016
- *A Participatory Design Approach for Energy-Aware Mobile App for Smart Home Monitoring*, paper presentation at 6th International Conference on Smart Cities and Green ICT Systems (SMARTGREENS 2017), Porto, Portugal, 22-24 April 2017.
- *Building energy modelling and monitoring by integration of IoT devices and Building Information Models*, paper presentation at 41<sup>st</sup> IEEE Computer Society International Conference on Computers, Software & Applications (COMPSAC 2017), Torino, Italy, 4-8 July 2017.
- *IoT Software Infrastructure for Remote Monitoring of Patients with Chronic Metabolic Disorders*, paper presented at IEEE 6th International Conference on Future Internet of Things and Cloud (FiCloud), Barcellona, Spain, 06-08 August 2018.

#### Awards

- IEEE GCCE 2014 Student Paper Award for “*Design and Implementation of a Multi-Standard Event-Driven Energy Management System For Smart Buildings*”, 2<sup>nd</sup> prize, at the 3rd IEEE Global Conference on Consumer Electronics, Tokyo, Japan, October 07-10 2014
- Best Poster Award at the International Microgrid Symposium 2018 for “*Real-Time Simulation of small-scale power grids with software in-the-loop and hardware in-the-loop experiments*”, 1<sup>st</sup> prize, Bucarest, Romania, September 2-4 2018
- SMARTGREENS 2017 Best Poster Award Candidate for “*A Participatory Design Approach for Energy-Aware Mobile App for Smart Home Monitoring*”, at 6th International Conference on Smart Cities and Green ICT Systems, Porto, Portugal, 22-24 April 2017.
- DATE 2018 Best Paper Award Candidate for “*GIS-Based Optimal Photovoltaic Panel Floorplanning for Residential Installations*”, at International conference on Design, Automation & Test in Europe (DATE), Dresden, Germany, 19-23 March 2018

#### Technology Transfer

Winner of first phase of Start Cup Competition Piemonte Valle D’Aosta 2017 with the project **WANNABE**

Italian national patent: “Metodo e sistema per controllare oggetti di un’unità abitativa mediante tracciamento oculare”. Priority number: 102021000010415

#### Patents Transfer

##### Italian national patent:

Anna Osello, Andrea, Acquaviva, **Edoardo Patti**, Matteo Del Giudice, Francesco Alotto, “*Metodo e sistema per controllare oggetti di un’unità abitativa mediante tracciamento oculare*”. Priority number: 102021000010415

<https://www.knowledge-share.eu/brevetto/sistema-di-comunicazione-oculare-per-il-controllo-dellautomazione-indoor/>

## References

- **Enrico Macii**, Full Professor at Dept. of Control and Computer Engineering, Politecnico di Torino, e-mail: [enrico.macii@polito.it](mailto:enrico.macii@polito.it)
- **Andrea Acquaviva**, Full Professor at Dept. of Electrical, Electronic, and Information Engineering "Guglielmo Marconi", University of Bologna, e-mail: [andrea.acquaviva@unibo.it](mailto:andrea.acquaviva@unibo.it)
- **Anna Osello**, Associate Professor at Dept. of Structural, Building and Geotechnical Engineering, Politecnico di Torino, e-mail: [anna.osello@polito.it](mailto:anna.osello@polito.it)
- **Pierluigi Mancarella**, Reader at Dept. of Electrical and Electronic Engineering, University of Manchester, email: [p.mancarella@manchester.ac.uk](mailto:p.mancarella@manchester.ac.uk)

## Publications

On-line list of publications is available at:

<https://iris.polito.it/cris/rp/rp11009>

### [International Journals]:

1. Asres M. W., Ardito L., **Patti E.**, *Computational Cost Analysis and Data-Driven Predictive Modeling of Cloud-based Online NILM Algorithm*. In: IEEE Transactions on Cloud Computing. DOI: [10.1109/TCC.2021.3051766](https://doi.org/10.1109/TCC.2021.3051766). **In Press**.
2. Orlando M., Estebarsari A., Pons E., Pau M., Quer S., Poncino M., Bottaccioli L., **Patti E.**, *A Smart Meter Infrastructure for Smart Grid IoT Applications*. In: IEEE Internet of Things Journal, vol. 9, issue 14, pp. 12529-12541, 2022. DOI: [10.1109/JIOT.2021.3137596](https://doi.org/10.1109/JIOT.2021.3137596).
3. Castangia M., Sappa R., Girmay A. A., Camarda C., Macii E., **Patti E.**, *Anomaly detection on household appliances based on variational autoencoders*. In: Sustainable Energy, Grids and Networks, Elsevier, vol. 32, 2022. DOI: [10.1016/j.segan.2022.100823](https://doi.org/10.1016/j.segan.2022.100823).
4. Barbierato L., Pons E., Mazza A., Bompard E., Subramaniam Rajkumar V., Palensky P., Macii E., Bottaccioli L., **Patti E.**, *Stability and Accuracy Analysis of a Distributed Digital Real-Time Co-simulation Infrastructure*, In: IEEE Transactions on Industry Applications, vol. 32, issue 3, 2022. DOI: [10.1109/TIA.2022.3155459](https://doi.org/10.1109/TIA.2022.3155459).
5. De Vizia C., **Patti E.**, Macii E., Bottaccioli L., *A User-Centric View of a Demand Side Management Program: From Surveys to Simulation and Analysis*. In: IEEE Systems Journal, vol. 16, issue 2, pp. 1885-1896, 2022. DOI: [10.1109/JSYST.2021.3135236](https://doi.org/10.1109/JSYST.2021.3135236).
6. Bellagarda A., Cesari S., Aliberti A., Ugliotti F., Bottaccioli L., Macii E., **Patti E.**, *Effectiveness of neural networks and transfer learning for indoor air-temperature forecasting*. In: Automation in Construction, Elsevier, vol. 140, 2022. DOI: [10.1016/j.autcon.2022.104314](https://doi.org/10.1016/j.autcon.2022.104314)
7. Tamborrino R. R. M., Dinler M., **Patti E.**, Aliberti A., Orlando M., De Luca C., Tondelli S., Amirzada Z., Pavlova I., *Engaging Users in Resource Ecosystem Building for Local Heritage-Led Knowledge*. In: MDPI Sustainability, vol. 14, issue 8, 2022. DOI: [10.3390/su14084575](https://doi.org/10.3390/su14084575).
8. Cannizzaro D., Varrella A.G., Paradiso S., Sampieri R., Chen Y., Macii A., **Patti E.**, Di Cataldo S., *In-situ defect detection of metal Additive Manufacturing: an integrated framework*. In: IEEE Transactions on Emerging Topics in Computing, vol 10, issue 1, pp. 74-86, 2022. DOI: [10.1109/TETC.2021.3108844](https://doi.org/10.1109/TETC.2021.3108844).
9. Estebarsari A., Rando Mazzarino P., Bottaccioli L., **Patti E.**, *IoT-Enabled Real-Time Management of Smart Grids with Demand Response Aggregators*. In: IEEE Transactions on Industry Applications, vol 58, issue 1, pp. 102-112, 2022. DOI: [10.1109/TIA.2021.3121651](https://doi.org/10.1109/TIA.2021.3121651).
10. Castangia M., Aliberti A., Bottaccioli L., Macii E., **Patti E.**, *A compound of feature selection techniques to improve solar radiation forecasting*. In: Expert Systems with Applications, Elsevier, vol. 178, 2021. DOI: [10.1016/j.eswa.2021.114979](https://doi.org/10.1016/j.eswa.2021.114979).

11. Solinas F., Bottaccioli L., Guelpa E., Verda V., **Patti E.**, *Peak shaving in district heating exploiting reinforcement learning and agent-based modelling*. In: Engineering Applications of Artificial Intelligence, vol. 102, 2021. DOI: [10.1016/j.engappai.2021.104235](https://doi.org/10.1016/j.engappai.2021.104235).
12. Cerquitelli T., Jahier Pagliari D., Calimera A., Bottaccioli L., **Patti E.**, Acquaviva A., Poncino M. *Manufacturing as a Data-Driven Practice: Methodologies, Technologies, and Tools*. In: Proceedings of the IEEE, vol. 109, no. 4, pp. 399-422, 2021. DOI: [10.1109/JPROC.2021.3056006](https://doi.org/10.1109/JPROC.2021.3056006).
13. Asres M.W., Mengistu M., Castrogiovanni P., Bottaccioli L., Macii E., **Patti E.**, Acquaviva A., *Supporting Telecommunication Alarm Management System with Trouble Ticket Prediction*. In: IEEE Transactions on Industrial Informatics, vol. 17, no. 2, 2021. DOI: [10.1109/TII.2020.2996942](https://doi.org/10.1109/TII.2020.2996942).
14. Schiera D. S., Barbierato L., Lanzini A., Borchiellini R., Pons E., Bompard E.F., **Patti E.**, Macii E., Bottaccioli L., *A Distributed Multi-Model Platform to Co-Simulate Multi-Energy Systems in Smart Buildings*. In: IEEE Transactions on Industry Applications, vol. 57, issue 5, pp. 4428-4440, 2021. DOI: [10.1109/TIA.2021.3094497](https://doi.org/10.1109/TIA.2021.3094497).
15. Cannizzaro D., Aliberti A., Bottaccioli L., Macii E., Acquaviva A., **Patti E.**, *Solar radiation forecasting based on convolutional neural network and ensemble learning*. In: Expert Systems with Applications, Elsevier, vol. 181, 2021. DOI: [10.1016/j.eswa.2021.115167](https://doi.org/10.1016/j.eswa.2021.115167).
16. Aliberti A., Fucini D., Bottaccioli L., Macii E., Acquaviva A., **Patti E.**, *Comparative analysis of neural networks techniques to forecast Global Horizontal Irradiance*. In: IEEE Access, vol. 9, pp. 122829 – 122846, 2021. DOI: [10.1109/ACCESS.2021.3110167](https://doi.org/10.1109/ACCESS.2021.3110167).
17. Vinco S., Jahier Pagliari D., Bottaccioli L., **Patti E.**, Macii E., Poncino M., *A Microservices-based Framework for Smart Design and Optimization of PV Installations*. In: IEEE Transactions on Sustainable Computing, vol 6, pp. 531-543, 2021. DOI: [10.1109/TSUSC.2020.3010673](https://doi.org/10.1109/TSUSC.2020.3010673).
18. Pagliari Jahier D., Di Cataldo S., **Patti E.**, Macii A., Macii E., Poncino M., *Low-Overhead Adaptive Brightness Scaling for Energy Reduction in OLED Displays*. In: IEEE Transactions on Emerging Topics in Computing, vol. 9, no.3, 2021. DOI: [10.1109/TETC.2019.2908257](https://doi.org/10.1109/TETC.2019.2908257).
19. De Vizia C., **Patti E.**, Macii E., Bottaccioli L., *A Win-Win Algorithm for Learning the Flexibility of Aggregated Residential Appliances*. In: IEEE Access, vol. 9, pp. 150495-150507, 2021. DOI: [10.1109/ACCESS.2021.3125247](https://doi.org/10.1109/ACCESS.2021.3125247).
20. Cannizzaro D., Zafiri M., Jahier Pagliari D., **Patti E.**, Macii E., Poncino M., Acquaviva A., *A Comparison Analysis of BLE-Based Algorithms for Localization in Industrial Environments*, In: MDPI Electronics, vol 9, no.1, pp. 44-61, 2020. DOI: [10.3390/electronics9010044](https://doi.org/10.3390/electronics9010044)
21. Massano M., **Patti E.**, Macii E., Acquaviva A, Bottaccioli L., *An Online Grey-Box Model Based on Unscented Kalman Filter to Predict Temperature Profiles in Smart Buildings*. In: MDPI Energies, vol. 13, no. 8, pp. 1-17, 2020. DOI: [10.3390/en13082097](https://doi.org/10.3390/en13082097).
22. Barbierato L., Estebsari A., Bottaccioli L., Macii E., **Patti E.**, *A Distributed Multi-Model Co-simulation Platform to Assess General Purpose Services in Smart Grids*. In: IEEE Transactions on Industry Applications, vol. 56, no.5, 2020. DOI: [10.1109/TIA.2020.3010481](https://doi.org/10.1109/TIA.2020.3010481).
23. (\*) Acquaviva A., Apiletti D., Attanasio A., Baralis E., Bottaccioli L., Cerquitelli T., Chiusano S. A., Macii E., **Patti E.**, *Forecasting Heating Consumption in Buildings: A Scalable Full-Stack Distributed Engine*. In: MDPI Electronics, vol. 8, no. 5 pp. 1-31, 2019. DOI: [10.3390/electronics8050491](https://doi.org/10.3390/electronics8050491).
24. Bottaccioli L., Di Cataldo S., Acquaviva A., **Patti E.**, *Realistic Multi-Scale Modelling of Household Electricity Behaviours*. In: IEEE Access, vol. 7, pp. 2467-2489, 2019. DOI: [10.1109/ACCESS.2018.2886201](https://doi.org/10.1109/ACCESS.2018.2886201).
25. Pau M., **Patti E.**, Barbierato L., Estebsari A., Pons E., Ponci F., Monti A., *Design and accuracy analysis of multi-level state estimation based on smart metering infrastructure*. In: IEEE Transactions on Instrumentation and Measurement, vol 68, no.11, pp. 4300 – 4312, 2019. DOI: [10.1109/TIM.2018.2890399](https://doi.org/10.1109/TIM.2018.2890399).
26. Aliberti A., Bottaccioli L., Macii E., Di Cataldo S., Acquaviva A., **Patti E.**, *A Non-Linear Autoregressive Model for Indoor Air-Temperature Predictions in Smart Buildings*. In: MDPI Energies, vol. 8, no. 9, pp. 1-17, 2019. DOI: [10.3390/electronics8090979](https://doi.org/10.3390/electronics8090979).



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\* To the senses of Italian legislative decree n.196/2003, I give my consent to the treatment of my personal data for human resources research