



# ACADEMIC TEACHER PROFESSIONAL EXPERIENCE

## DOCTORAL SCHOOL OF WROCLAW UNIVERSITY OF SCIENCE AND TECHNOLOGY

### 1. Basic information

Name, surname:	Przemysław Janik
Grade / Title:	dr hab. inż. , prof. uczelni
Scientific discipline	<b>automatyka, elektronika, elektrotechnika i technologie kosmiczne / control, electronic, electrical engineering and space technologies</b>
Faculty:	W5 Wydział Elektryczny / Faculty of Electrical Engineering
Email address:	Przemyslaw.janik@pwr.edu.pl
Link to home page and/or research profiles (Google Scholar, ResearchGate, etc.)	<a href="https://orcid.org/0000-0001-5300-7845">Przemysław Janik (0000-0001-5300-7845) - ORCID</a> <a href="https://kpee.pwr.edu.pl/">https://kpee.pwr.edu.pl/</a>

### 2. Publication record

*Up to 10 most important papers published over the period of previous 10 years.*

No.	Description (authors, publication title, journal / conference, DOI)	Publication year
1.	Fachrizal F. Aksan, Vishnu S. Suresh, Przemysław Janik, Tomasz Sikorski Load forecasting for the laser metal processing industry using VMD and hybrid deep learning models. <i>Energies</i> . 2023, vol. 16, nr 14, art. 5381, s. 1-24.	2023
2.	Fachrizal F. Aksan, Yang Li*, Vishnu S. Suresh, Przemysław Janik Multistep forecasting of power flow based on LSTM autoencoder: a study case in regional grid cluster proposal. <i>Energies</i> . 2023, vol. 16, nr 13, art. 5014, s. 1-20.	2023
3.	Yang Li*, Przemysław Janik, Harald Schwarz* Prediction and aggregation of regional PV and wind generation based on neural computation and real measurements. <i>Sustainable Energy Technologies and Assessments</i> . 2023, vol. 57, art. 103314, s. 1-9.	2023
4.	Dominika N. Kaczorowska, Jacek Rezmer, Przemysław Janik, Tomasz Sikorski Smart control of energy storage system in residential photovoltaic systems for economic and technical efficiency. <i>Archives of Electrical Engineering</i> . 2023, vol. 72, nr 1, s. 81-102.	2023
5.	Vishnu S. Suresh, Przemysław Janik, Michał M. Jasiński, Josep M. Guerrero*, Zbigniew Leonowicz Microgrid energy management using metaheuristic optimization algorithms. <i>Applied Soft Computing</i> . 2023, vol. 134, art. 109981, s. 1-18	2023
6.	Dominika N. Kaczorowska, Przemysław Janik, Jacek Rezmer Analysis of long term energy storage performance supporting a PV system and residential load. <i>Przegląd Elektrotechniczny</i> . 2023, R. 99, nr 1, s. 86-90.	2023
7.	Yang Li*, Przemysław Janik, Harald Schwarz*, Klaus Pfeiffer* Proposal of a regional grid cluster model for analysis of electrical power network performance. <i>Archives of Electrical Engineering</i> . 2022, vol. 71, nr 3, s. 601-613.	2022



8.	Vishnu S. Suresh, Fachrizal F. Aksan, Przemysław Janik, Tomasz Sikorski, B. Sri Revathi* Probabilistic LSTM-Autoencoder based hour-ahead solar power forecasting model for intra-day electricity market participation: A Polish case study. IEEE Access. 2022, vol. 10, s. 110628-110638.	2022
9.	Vishnu S. Suresh, Przemysław Janik, Josep M. Guerrero*, Zbigniew Leonowicz, Tomasz Sikorski Microgrid energy management system with embedded deep learning forecaster and combined optimizer. IEEE Access. 2020, vol. 8, s. 202225-202239.	2020
10.	Przemysław Janik, Tadeusz Łobos Automated classification of power-quality disturbances using SVM and RBF networks. IEEE Transactions on Power Delivery. 2006, vol. 21, nr 3, s. 1663-1669.	2006

### 3. Projects and grants

List of the most important 5 projects/grants with basic description including: title, source(s) of funding, name of the call, role in the project (e.g., principal investigator).

1.	Role in the project (e.g., principal investigator, work package leader, etc.)	Principal researcher
	Project title	D-HYDROFLEX Digital solutions for improving the sustainability performance and FLEXibility potential of HYDROpower assets
	Sources of funding	Horizon Europe
	Name of the call	HORIZON-CL5-2022-D3-03
	Implementation period	2023-2026
2.	Role in the project (e.g., principal investigator, work package leader, etc.)	R&D Project Manager
	Project title	Developing a platform allowing for aggregating generation and regulatory potential of the dispersed renewable energy sources, power retention
	Sources of funding	NBCiR
	Name of the call	POIR 2.1 Support for investment in R&D infrastructure of enterprises, Intelligent Development
	Implementation period	2017-2020
3.	Role in the project (e.g., principal investigator, work package leader, etc.)	Researcher
	Project title	Multi Energy Storage Hub For reliable and commercial systems Utilization Mesh4You
	Sources of funding	ERA-Net Smart Energy Systems
	Name of the call	SES Joint Call 2019
	Implementation period	2021-2023
4.	Role in the project (e.g., principal investigator, work package leader, etc.)	Researcher
	Project title	Research on the effectiveness of data transmission in PLC technology in LV and MV networks



	Sources of funding	NCBiR
	Name of the call	Innotech K1/INI1
	Implementation period	2012-2015
5.	Role in the project (e.g., principal investigator, work package leader, etc.)	Researcher
	Project title	New methods of power quality analysis and assessment
	Sources of funding	KBN
	Name of the call	
	Implementation period	2006-2009

#### 4. International experience

*Brief description of international cooperation and experience (e.g., research stays, cooperation with foreign entities, coordination or participation in international projects or programmes, keynote speeches and presentations delivered at renowned international conferences, visiting professor stays, invited lectures).*

No.	Description	Year(s)
1.	Visiting Professor, BTU Cottbus-Senftenberg, Germany	2014-2016
2.	THELXINOE: Erasmus Euro-Oceanian Smart City Network mobility, Australia	2015
3.	Researcher, Faculty of Electrical and Computer Engineering, Dresden University of Technology, Germany	2001-2002

#### 5. Experience in teaching doctoral students

*Brief description of experience in teaching doctoral students (e.g., courses in doctoral schools and PhD studies, summer/winter schools for doctoral students, tutorials, trainings, etc.).*

No.	Description	Year(s)
1.	Reporting Seminar	2022-present
2.	Recent research trends in AEE	2022-present
3.		

#### 6. List of supervised doctoral students

*List of all supervised doctoral students that defended the PhD including: name of the student, dissertation title, year of awarding PhD.*

No.	Name, surname	Dissertation title	Year of awarding PhD
1.	Yang Li	Implementation of a network cluster model for large-scale renewable power estimation and effective energy utilization, BTU Cottbus-Senftenberg	2023
2.	Vishnu S. Suresh	Microgrid energy management system with hybrid optimizers, embedded deep learning forecasters and e-vehicle charging stations, Politechnika Wroclawska	2021
3.	Xoese Kobla Nanewortor	A concept of renewable energy plant-storage capacity sizing for integration into	2016



		electrical distribution network, BTU Cottbus-Senftenberg	
--	--	---	--

## 7. Prizes and awards

*The most important national and international prizes and awards related to research, development and teaching activities.*

No.	Description	Year
1.	Honouring Letter, Dean of Faculty 3, Mechanical Engineering, Electrical and Energy Systems Brandenburg University of Technology Cottbus-Senftenberg	2016
2.	Award for research and international cooperation - 2nd degree Rector's team award	2010
3.	Award for research and international cooperation – 3rd degree Rector's team award	2009

## 8. Other significant achievements

*Information on other significant achievements related to research, development and teaching activities.*