

**CURRICULUM VITAE**

<b>NAME AND SURNAME:</b>	Ph.D. Eng. Piotr Kuwałek
<b>DATE OF BIRTH:</b>	27.05.1994
<b>CONTACT DETAILS:</b>	Room 522, Piotrowo 3A, 60-965 Poznań, Poland; piotr.kuwalek@put.poznan.pl; +48 61 665 26 42
<b>EDUCATION:</b>	<p><b>2018-2022</b> – Ph.D. studies at the Faculty of Control, Robotics and Electrical Engineering (formerly Electrical Engineering) of the Poznan University of Technology – „ Modern electrical and information engineering”</p> <p><b>2018-2020</b> - Postgraduate studies at the Faculty of Management Engineering at the Poznan University of Technology - "Educational preparation for teaching general and technical-vocational subjects"</p> <p><b>2017-2018</b> – M.Sc. Eng. studies at the Faculty of Electrical Engineering at the Poznan University of Technology - "Electrical Engineering", specialization "Measurement systems in industry and biomedical engineering"</p> <p><b>2015-2018</b> – B.Sc. studies at the Faculty of Electrical Engineering at the Poznan University of Technology - "Mathematics", specialization "Mathematical modeling"</p> <p><b>2013-2017</b> – Eng. studies at the Faculty of Electrical Engineering at the Poznan University of Technology - "Electrical Engineering", specialization "Measurement systems in industry and biomedical engineering"</p>
<b>SCIENTIFIC INDICATORS:</b>	<p>- Hirsch Index: 8 (WoS) / 9 (Scopus) / 9 (GoogleScholar)</p> <p>- Total Citations: 159 (WoS) / 189 (Scopus) / 248 (GoogleScholar)</p> <p>- Total Impact Factor: 71,146</p>
<b>LIST OF SCIENTIFIC PUBLICATIONS:</b>	<p>- <b>Kuwałek P.</b>, Decomposition by Approximation with Pulse Waves Allowing Further Research on Sources of Voltage Fluctuations, <i>IEEE Transactions on Industrial Electronics</i>, vol. 71, no. 5, pp. 5263-5273, 2024 (<b>IF = 7,7</b>).</p> <p>- <b>Kuwałek P.</b>, Wiczyński G., Multi-point method using effective demodulation and decomposition techniques allowing identification of disturbing loads in power grids, <i>Electric Power Systems Research</i>, vol. 231, art. no. 110335, 2024 (<b>IF = 3,3</b>).</p> <p>- <b>Kuwałek P.</b>, Wiczyński G., Laboratory Setup for Testing Low-Frequency Disturbances of Power Quality, <i>Proceedings of 18th International Conference on Compatibility, Power Electronics and Power Engineering</i>, IEEE, 2024, Poland, Gdynia.</p> <p>- <b>Kuwałek P.</b>, Assessment of Diagnostic Capabilities of Methods of Recreation of Voltage Fluctuations, <i>Proceedings of 18th International Conference on Compatibility, Power Electronics and Power Engineering</i>, IEEE, 2024, Poland, Gdynia.</p> <p>- Wiczyński G., <b>Kuwałek P.</b>, Impact of small photovoltaic installations on the low-voltage network - examples, <i>Proceedings of the 9th Scientific and Technical Conference: Measurements and Diagnostics in Power Grids</i>, pp. 51-60, 2024, Poland, Kołobrzeg.</p> <p>- <b>Kuwałek P.</b>, Wiczyński G., Preliminary Observations of Supraharmonics in Low Voltage Networks, <i>Proceedings of the IEEE International Conference on Energy Technologies for Future Grids</i>, pp. 1-6, 2023, Australia, Wollongong.</p> <p>- Jędrzycka C., <b>Kuwałek P.</b>, Wiczyński G., Power Quality Problem for Single-Phase Low-Voltage Charging of Electric Vehicles, <i>Proceedings of the IEEE International Conference on Energy Technologies for Future Grids</i>, pp. 1-6, 2023, Australia, Wollongong.</p> <p>- <b>Kuwałek P.</b>, Jęsko W., Speech Enhancement Based on Enhanced Empirical Wavelet Transform and Teager Energy Operator, <i>Electronics</i>, vol. 12, no. 14, art. no. 3167, 2023 (<b>IF = 2,9</b>).</p> <p>- Wiczyński G., <b>Kuwałek P.</b>, Supraharmonics in low voltage circuits, <i>Proceedings of the 8th Scientific and Technical Conference: Measurements and Diagnostics in Power Grids</i>, pp. 61-71, 2023, Poland, Kołobrzeg.</p> <p>- Dziarski K., Hulewicz A., <b>Kuwałek P.</b>, Wiczyński G., Methods of Measurement of Die Temperature of Semiconductor Elements: A Review, <i>Energies</i>, vol. 16 no. 6, art. no. 2559, 2023 (<b>IF=3,2</b>).</p> <p>- <b>Kuwałek P.</b>, Wiczyński G., Monitoring Single-Phase LV Charging of Electric Vehicles, <i>Sensors</i>, vol. 23, no. 1, art. no. 141, 2023 (<b>IF = 3,9</b>).</p> <p>- Wiczyński G., <b>Kuwałek P.</b>, Voltage Distortion Influence on Flicker Severity Measurement by AMI Energy Meters, <i>IEEE Transactions on Industrial Electronics</i>, vol. 69, no. 10, pp. 10684-10693, 2022 (<b>IF = 7,7</b>).</p> <p>- Wiczyński G., <b>Kuwałek P.</b>, Influence of Sampling Rate on Flicker Assessment by IEC Flickermeter Built-in AMI Energy Meters, <i>IEEE Transactions on Industrial Electronics</i>, vol. 69, no. 9, pp. 9566-9574, 2022 (<b>IF = 7,7</b>).</p> <p>- <b>Kuwałek P.</b>, IEC Flickermeter Measurement Results for Distorted Modulating Signal while Supplied with Distorted Voltage, <i>Proceedings of the 20th International Conference on Harmonics and Quality of Power</i>, IEEE, art. no. 4, 2022, Italy, Naples.</p>

- **Kuwałek P.**, Decomposition Problem in Process of Selective Identification and Localization of Voltage Fluctuation Sources in Power Grids, *Proceedings of the 20th International Conference on Harmonics and Quality of Power*, IEEE, art. no. 43, 2022, Italy, Naples.

- **Kuwałek P.**, Wiczyński G., Problem of Total Harmonic Distortion Measurement Performed by Smart Energy Meters, *Measurement Science Review*, vol. 22, no. 1, pp. 1-10, 2022 (IF = 0,9).

- **Kuwałek P.**, Selective Identification and Localization of Voltage Fluctuation Sources in Power Grids, *Energies*, vol. 14, no. 20, art. no. 6585, 2021 (IF = 3,004).

- **Kuwałek P.**, Wiczyński G., Dependence of Voltage Fluctuation Severity on Clipped Sinewave Distortion of Voltage, *IEEE Transactions on Instrumentation and Measurement*, vol. 70, art. no. 2006008, 2021 (IF = 4,016).

- **Kuwałek P.**, Burlaga B., Jęško W., Konieczka P., Research on Methods for Detecting Respiratory Rate from Photoplethysmographic Signal, *Biomedical Signal Processing and Control*, vol. 66, art. no. 102483, 2021 (IF = 3,880).

- **Kuwałek P.**, Estimation of Parameters Associated with Individual Sources of Voltage Fluctuations, *IEEE Transactions on Power Delivery*, vol. 36, no. 1, pp. 351-361, 2021 (IF = 4,131).

- Górny K., **Kuwałek P.**, Pietrowski W., Increasing Electric Vehicles Reliability by Non-Invasive Diagnosis of Motor Winding Faults, *Energies*, vol. 14, no. 9, art. no. 2510, 2021 (IF = 3,004).

- **Kuwałek P.**, Comparison of the Estimation Errors of Parameters Associated With Individual Voltage Fluctuations Sources Using Selected Decomposition Methods, *Proceedings of the 13th International Conference on Measurement*, IEEE, pp. 93-96, 2021, Slovakia, Smolenice.

- **Kuwałek P.**, Influence of Voltage Variation on the Measurement of Total Harmonic Distortion (THD) by AMI Smart Electricity Meters, *Proceedings of the 13th International Conference on Measurement*, IEEE, pp. 159-162, 2021, Slovakia, Smolenice.

- **Kuwałek P.**, AM modulation signal estimation allowing further research on sources of voltage fluctuations, *IEEE Transactions on Industrial Electronics*, vol. 67, no. 8, pp. 6937-6945, 2020 (IF = 8,236).

- **Kuwałek P.**, Otomański P., Wandachowicz K., Influence of the Phenomenon of Spectrum Leakage on the Evaluation Process of Metrological Properties of Power Quality Analyser, *Energies*, vol. 13, no. 20, art. no. 5338, 2020 (IF = 3,004).

- **Kuwałek P.**, Jęško W., Recreation of Voltage Fluctuation Using Basic Parameters Measured in the Power Grid, *Journal of Electrical Engineering & Technology*, vol. 15, no. 2, pp. 601-609, 2020 (IF = 1,069).

- **Kuwałek P.**, Trace of Flicker Sources by Using Non-Parametric Statistical Analysis of Voltage Changes, *Proceedings of the 19th International Conference on Harmonics and Quality of Power*, IEEE, pp. 1-6, 2020, United Arab Emirates, Dubai.

- **Kuwałek P.**, Increase of Diagnostic Capabilities of Voltage Fluctuation Indices, *Proceedings of the 19th International Conference on Harmonics and Quality of Power*, IEEE, pp. 1-6, 2020, United Arab Emirates, Dubai.

- Chmielowiek K., **Kuwałek P.**, Wiczyński G., Application of AMI meters to power quality evaluation, *Proceedings of the 5th Scientific and Technical Conference: Measurements and Diagnostics in Power Grids*, art. no. 53, 2020, Poland, Kołobrzeg.

- **Kuwałek P.**, The Application of Kernel Density Estimation for Aided the Process of Locating Sources of Voltage Fluctuations, *Przegląd Elektrotechniczny*, vol. 95, no. 8, pp. 70-74, 2019.

- **Kuwałek P.**, Otomański P., Effect of the Phenomenon of „Spectrum Leakage” on the Measurement of Power Quality Parameters, *Proceedings of the 12th International Conference on Measurement*, IEEE, pp. 70-73, 2019, Slovakia, Smolenice.

- **Kuwałek P.**, Application of an enhanced empirical wavelet transform to determine selected parameters of sources of voltage fluctuations, *The Scientific Papers of Faculty of Electrical and Control Engineering. Gdansk University of Technology*, vol. 66, pp. 33-36, 2019.

- Jęško W., **Kuwałek P.**, The prototype of a wireless measurement card, *ITM Web of Conferences*, vol. 28, art. no. 01045, 2019.

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- Jęško W., **Kuwałek P.**, Wireless network measurement card, *Poznan University of Technology Academic Journals. Electrical Engineering*, vol. 100, pp. 19-28, 2019.

- Otomański P., **Kuwałek P.**, Application of Fourier series to determine the measurements error of harmonics with selected power quality analyzers, *Proceedings of the 11th International Conference on Measurement*, IEEE, pp. 15-18, 2017, Slovakia, Smolenice.

- **Kuwałek P.**, Otomański P., The influence of signal RMS value on measuring accuracy harmonics contents, *Poznan University of Technology Academic Journals. Electrical Engineering*, vol. 90, pp. 213-221, 2017.

**LIST OF SCIENTIFIC PROJECTS:**

- “Measurements of electrical and non-electrical quantities in the diagnosis of electrical, electronic and lighting systems – Part III” (O212/SBAD/0593) by the Ministry of Education and Science; role: contractor; completion date: in progress.

- "Testing of selected measurement signals in electrical engineering - part II" (O212/SBAD/0595) by the Ministry of Education and Science; role: contractor; completion date: in progress.

	<ul style="list-style-type: none"> <li>- Project Preludium 20 "Diagnostics of voltage fluctuations aimed at the identification and location of nuisance receivers in power grids" (2021/41/N/ST7/00397) financed by the National Science Center (NCN); role: <b>project leader</b>; completion date: in progress.</li> <li>- "Testing of selected measurement signals in electrical engineering - part I" (0212/SBAD/0573) by the Ministry of Education and Science; role: <b>project leader</b>; completion date: 2023.</li> <li>- "Measurements of electrical and non-electrical quantities in the diagnostics of electrical, electronic and lighting systems – Part II" (0212/SBAD/0569) financed by the Ministry of Education and Science; role: contractor; completion date: 2023.</li> <li>- "Increasing the possibilities of diagnostic techniques in electrical engineering by the use of advanced signal processing tools" (0212/SBAD/0541) financed by the Ministry of Education and Science; role: <b>project leader</b>; completion date: 2021.</li> <li>- " Investigation of the effect of recorded unsharpness thermogram on the uncertainty of thermovision temperature measurement" (0212/SBAD/0542) financed by the Ministry of Education and Science; role: contractor; completion date: 2021.</li> <li>- "Measurements of electrical and non-electrical quantities in the diagnostics of electrical, electronic and lighting systems – Part I" (0212/SBAD/0539) financed by the Ministry of Education and Science; role: contractor; completion date: 2021.</li> <li>- " Acquisition and processing of selected diagnostic signals" (0212/SBAD/0515) financed by the Ministry of Science and Higher Education; role: contractor; completion date: 2021.</li> <li>- " Increasing the diagnostic possibilities of voltage fluctuation indices" (0212/SBAD/0525) financed by the Ministry of Science and Higher Education; role: <b>project leader</b>; completion date: 2020.</li> <li>- Project e-Pionier I "Life functions monitoring system" (WG-POPC.03.03.00-00-0008/16-00) solving the problem entitled "Inefficient monitoring of detained persons" (55/08/2019/UD) financed by the National Center for Research and Development (NCBiR); role: contractor - <b>signal processing specialist</b>; completion date: 2020.</li> <li>- " Acquisition and processing of selected diagnostic signals" (04/42/SBAD/0487) financed by the Ministry of Science and Higher Education; role: contractor; completion date: 2020.</li> <li>- "Increasing the possibility of identification voltage fluctuation sources and reducing errors of higher harmonics measurements to improve power quality diagnostics" (04/42/SBAD/0493) financed by the Ministry of Science and Higher Education; role: <b>project leader</b>; completion date: 2019.</li> </ul>
<p><b>LIST OF CERTIFICATES HELD:</b></p>	<ul style="list-style-type: none"> <li>- Management and team work certificate „Competences as a key path to career“.</li> <li>- Certificate of ability to work in the interdisciplinary team „I am in the Team“.</li> <li>- ACERT certificate of English language proficiency - level B2.</li> </ul>
<p><b>LIST OF CONFERENCES AS A SPEAKER:</b></p>	<ul style="list-style-type: none"> <li>- 18th International Conference on Compatibility, Power Electronics and Power Engineering, Poland, Gdynia, 24-26.06.2024.</li> <li>- 9th Scientific and Technical Conference: Measurements and Diagnostics in Power Grids, Poland, Kołobrzeg, 11-12.06.2024.</li> <li>- International Conference on Energy Technologies for Future Grids, Australia, Wollongong, 03-06.12.2023.</li> <li>- 8th Scientific and Technical Conference: Measurements and Diagnostics in Power Grids, Poland, Kołobrzeg, 31.05-01.06.2023.</li> <li>- 20th International Conference on Harmonics and Quality of Power, Italy, Naples, 28.05-01.06.2022.</li> <li>- 6th Scientific and Technical Conference: Measurements and Diagnostics in Power Grids, Poland, Poznań, 16-17.06.2021.</li> <li>- 13th International Conference on Measurement, Slovakia, Bratislava, 17-19.05.2021.</li> <li>- 5th Scientific and Technical Conference: Measurements and Diagnostics in Power Grids, Poland, Kołobrzeg, 28-29.10.2020.</li> <li>- 19th International Conference on Harmonics and Quality of Power, United Arab Emirates, Dubai, 06-07.07.2020.</li> <li>- 12th International Conference on Measurement, Slovakia, Smolenice, 27-29.05.2019.</li> <li>- 24th Scientific Conference on Computer Applications in Electrical Engineering, Poland, Poznań, 15.04.2019.</li> <li>- 51th Inter-University Metrology Conference MKM’19, Poland, Opole-Moszna, 23-25.09.2019.</li> <li>- 11th International Conference on Measurement, Slovakia, Smolenice, 29-31.05.2017.</li> <li>- 22th Scientific Conference on Computer Applications in Electrical Engineering, Poland, Poznań, 10-11.04.2017.</li> </ul>
<p><b>LIST OF AWARDS:</b></p>	<ul style="list-style-type: none"> <li>- Winner of the Main prize in the 21st edition of the ABB competition for a Ph.D. thesis.</li> <li>- Winner of the Young Promoter of Poland award in the category of scientific activity under the Honorary Patronage of the Spouse of the President of the Republic of Poland in 2023.</li> <li>- Financial distinction for the Ph.D. dissertation in the competition "Award of the City of Poznań for an outstanding doctoral thesis".</li> <li>- Winner of the scholarship of the Minister of Education and Science for outstanding young scientists in 2022.</li> <li>- Award of the Rector of Poznan University of Technology for outstanding achievements in scientific work for 2021.</li> <li>- Winner of the Poznań City Scholarships for young researchers in 2022.</li> </ul>

	<ul style="list-style-type: none"> <li>- Laureate of the main award of the Poznań Branch of the Polish Academy of Sciences for the best original creative work published in 2021.</li> <li>- Winner of the stipend START 2021 financed by the Foundation for Polish Science (45.2021).</li> <li>- Winner of the "Young Investigator Award" for the best oral presentation at the 13th International Conference on Measurement - MEASUREMENT 2021, Slovakia, Bratislava.</li> <li>- Award of the Rector of Poznan University of Technology for outstanding achievements in scientific work for 2020.</li> <li>- Laureate of the main award of the Poznań Branch of the Polish Academy of Sciences for the best original creative work published in 2019.</li> <li>- Award of the Rector of Poznan University of Technology for achievements in scientific work for 2019.</li> </ul>
<b>LIST OF REVIEWS:</b>	<ul style="list-style-type: none"> <li>- <i>Algorithms</i> – <b>3</b> reviews</li> <li>- <i>Applied Science</i> – <b>1</b> review</li> <li>- <i>Archives of Electrical Engineering</i> - <b>6</b> reviews</li> <li>- <i>Biomimetics</i> – <b>1</b> review</li> <li>- <i>EAI CCom 2021 - 2nd EAI International Conference on Computational Intelligence and Communications</i> - <b>5</b> reviews</li> <li>- <i>EAI CCom 2022 - 3rd EAI International Conference on Computational Intelligence and Communications</i> - <b>2</b> reviews</li> <li>- <i>Electronics</i> - <b>11</b> reviews</li> <li>- <i>Energies</i> - <b>24</b> reviews</li> <li>- <i>Entropy</i> - <b>2</b> reviews</li> <li>- <i>IEEE Transactions on Industrial Electronics</i> - <b>4</b> reviews</li> <li>- <i>IEEE Transactions on Power Delivery</i> - <b>1</b> reviews</li> <li>- <i>International Journal of Photoenergy</i> - <b>1</b> reviews</li> <li>- <i>Machines</i> - <b>3</b> reviews</li> <li>- <i>Mathematics</i> - <b>7</b> reviews</li> <li>- <i>Measurement Science Review</i> - <b>1</b> reviews</li> <li>- <i>Micromachines</i> - <b>3</b> reviews</li> <li>- <i>Sensors</i> - <b>14</b> reviews</li> <li>- <i>Sustainability</i> - <b>7</b> reviews</li> <li>- <i>Symmetry</i> - <b>1</b> reviews</li> </ul>
<b>MEMBERSHIPS:</b>	<ul style="list-style-type: none"> <li>- Membership of the Technical Committee of the Polish Committee for Standardization (<b>PKN</b>) for Electrical Measuring Instruments for the Measurement of Electromagnetic Quantities (<b>TC 71</b>) and for Electromagnetic Compatibility (<b>TC 104</b>).</li> <li>- Membership of the Institute of Electrical and Electronics Engineers (<b>IEEE</b>), section: Industrial Electronics Society (<b>IES</b>), Instrumentation and Measurement Society (<b>IMS</b>), Power and Energy Society (<b>PES</b>).</li> <li>- Membership of the <i>European Alliance for Innovation (EAI)</i>.</li> <li>- Membership of the Technical Program Committee <b>EAI CCom 2021 - 2nd EAI International Conference on Computational Intelligence and Communications</b>.</li> <li>- Membership of the Organizing Committee and Technical Program Committee <b>EAI CCom 2022 - 3rd EAI International Conference on Computational Intelligence and Communications</b>.</li> </ul>
<b>WORK EXPERIENCE:</b>	<ol style="list-style-type: none"> <li>1. PERIOD OF EMPLOYMENT: (1) 10.2019-today (2) 04-09.2018, (3) 08-09.2017, (4) 08-09.2016, (5) 08-09.2015, (6) 07-08.2012, (7) seasonally: 2013-2016</li> <li>2. NAME OF THE WORKPLACE: (1) Poznan University of Technology (2) AmRest Holdings SE, (3) Tax Office in Drawsko Pomorskie, (4) Flow Technics Sp. z o.o., (5) Branch PKC Group – K-T-P Sp. z o.o., (6) SprintWerkt in Holland, (7) Bar przy Plaży</li> <li>3. NAME OF THE POSITION HELD: (1) Assistant Professor, (2) Instructor, (3) Apprentice, (4) Automation Engineer, (5) Product Engineer, (6) Chief Production Assistant, (7) Manager</li> <li>4. SCOPE OF DUTIES AT THE HELD POSITION: (1) Conducting didactic classes and research activities, (2) Training and introducing new people, (3) Database management, (4) Constructing and programming automation and security systems using microcontrollers and PLC, (5) Creating construction documentation, modernization of finished products, work in interdisciplinary teams, (6) – Production process management, work in interdisciplinary teams, (7) – Bar and staff management, accounting and database services.</li> </ol>

*I agree to the processing of personal data provided in this document for realising the recruitment process pursuant to the Personal Data Protection Act of 10 May 2018 (Journal of Laws 2018, item 1000) and in agreement with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).*