

## CONTAT

Department of Technology and Entrepreneurship in Wood Industry  
 Institute of Wood Sciences and Furniture  
 Warsaw University of Life Sciences - SGGW  
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## EDUCATION

Occupational titles and science degrees	Date (year)	University
<b>Master of Science</b> in Mechanical Engineering	2008	Faculty of Mechanical Engineering Bialystok University of Technology in Bialystok
<b>Doctor</b> in Agricultural Sciences	2017	Faculty of Production Engineering Warsaw University of Life Sciences - SGGW

## PROFESSIONAL POSITIONS HELD

Position	Date (year)	Institution
Tutor	2009	Institute of Fundamental Technological Research - PAN Department of Computer Science and Computational Sciences
Tutor	2010 – 2017	Institute of Technology and Life Sciences in Warsaw
Assistant professor	2017 – 2019	Department of Economic and Energetic Analysis
Assistant professor	2019 - currently	Department of Technology and Entrepreneurship in Wood Industry, Faculty of Wood Technology, Warsaw University of Life Sciences - SGGW

## COURSES TAUGHT AND OTHER SERVICES PROVIDED TO STUDENTS AND THE HOME INSTITUTION

- Engineering mechanics;
- Fundamentals of production organization.

## PUBLICATIONS

### ORCID: 0000-0001-7455-2789

**Roman K, Rzodkiewicz W, Hryniwicz M., 2023:** Analysis of Forest Biomass Wood Briquette Structure According to Different Tests of Density. Energies. 2023; 16(6):2850. <https://doi.org/10.3390/en16062850>, IF(3,252)

**Roman K, Grzegorzewska E, Leszczyński M, Pycka S, Barwicki J, Golisz E, Zatoń P., 2022:** Effect of Seawater with Average Salinity on the Moisture Content, Ash Content and Tensile Strength of Some Coniferous Wood. Materials. 2023; 16(8):2984. <https://doi.org/10.3390/ma16082984>, IF(3,748)

**Golisz E., Wielewska I., Roman K., Kacprzak M., 2022:** Probabilistic Model of Drying Process of Leek, Applied Sciences-Basel, MDPI, vol. 12, nr 22, 2022, Numer artykułu: 11761, s. 1-12, DOI:10.3390/app122211761, 100 punktów, IF(2,679)

**Roman K., Grzegorzewska E., Zatoń P., Konieczna A., Oleńska S., Borek K., Świętochowski A., 2022:** Dispersed Power Production in Terms of the Potential of Briquettes Made from Straw and Willow as Renewable Sources of Energy, Materials, MDPIAG, vol. 15, nr 15, p. 5235, DOI:10.3390/ma15155235, IF(3,748)

**Roman K., Konieczna A., Roman M., Oleksy A., Niedziółka A., 2022:** The impact of soil compaction with different harvest technologies caused by agricultural machinery, Bulgarian Journal of Agricultural Science, vol. 28, nr 3, p. 470-481, IF(0,136)

**Roman M., Roman M., Grzegorzewska E., Pietrzak P., Roman K., 2022:** Influence of the COVID-19 Pandemic on Tourism in European Countries: Cluster Analysis Findings, Sustainability, MDPI, vol. 14, nr 3, p. 1-17, DOI:10.3390/su14031602, IF(3,889)

**Romaniuk W., Rogovskii I., Polishchuk V., Titova L., Borek K., Wardal W., Shvorov S., Dvornyk Y., Sivak I., Roman K., 2022:** Study of Methane Fermentation of Cattle Manure in the Mesophilic Regime with the Addition of Crude Glycerine, Energies, MDPI, vol. 15, nr 9, p. 1-13, DOI:10.3390/en15093439, IF(3,252)

- Romaniuk W., Rogovskii I., Polishchuk V., Titova L., Borek K., Shvorov S., Roman K., Solomka O., Tarasenko S., Didur V., 2022:** Study of Technological Process of Fermentation of Molasses Vinasse in Biogas Plants, Processes, MDPI, vol. 10, nr 10, s. 2011, DOI:10.3390/pr10102011, łączna liczba autorów: 11, IF(2,847)
- Suchorab B., Roman K., 2022:** The PLA content influence selected properties of wood-based composites, Annals of Warsaw University of Life Sciences - SGGW Forestry and Wood Technology, Wydawnictwo SGGW, vol. 120, s. 57-67, DOI:10.5604/01.3001.0016.2316,
- Śliwiński D., Konieczna A., Roman K., 2022:** Geostatistical Resampling of LiDAR-Derived DEM in Wide Resolution Range for Modelling in SWAT: A Case Study of Zgłowiączka River (Poland), Remote Sensing, vol. 14, nr 5, p. 1-27, DOI:10.3390/rs14051281, IF(4,118)
- Barwicki J., Roman K., Borek K., Mazur K., Wardal W., Kierończyk M., 2021:** Some experimental studies concerning mixing of loose and liquid agricultural materials, Inżynieria Materiałowa, Wydawnictwo SIGMA - N O T Sp. z o.o., vol. 42, nr 4-5, p. 18-20, DOI:10.15199/28.2021.4-5.2
- Barwicki J., Wardal W., Roman K., 2021:** The influence of climate change in Europe on the situation of the future agriculture, Polish Technical Review, Wydawnictwo Czasopism i Książek Technicznych SIGMA-NOT , vol. 4, s. 23-27
- Borek K., Romaniuk W., Roman K., Roman M., Kuboń M. 2021:** The Analysis of a Prototype Installation for Biogas Production from Chosen Agricultural Substrates, Energies, vol. 14, nr 8, p. 1-19, DOI:10.3390/en14082132, IF(3,004)
- Hryniwicz M., Strzelczyk M., Helis M., Paszkiewicz-Jasińska A., Steinhoff-Wrzesniewska A., Roman K. 2021:** Mathematical models use to yield prognosis of perennials on marginal land according to fertilisers doses, Journal of Water and Land Development, vol. 51, 233–242 , DOI:10.24425/jwld.2021.139034,
- Konieczna A., Roman K., Roman M., Śliwiński D., Roman M. 2021:** Energy Efficiency of Maize Production Technology: Evidence from Polish Farms, Energies, vol. 14, nr 1, p. 1-20, DOI:10.3390/en14010170, IF(3,004)
- Konieczna A., Roman K., Borek K., Grzegorzewska E., 2021:** GHG and NH<sub>3</sub> Emissions vs. Energy Efficiency of Maize Production Technology: Evidence from Polish Farms; a Further Study, Energies, vol. 14, nr 17, p. 1-16, DOI:10.3390/en14175574, IF(3,004)
- Marek H., Roman K., 2021:** Simulations of fuels consumption in the CHP system based on modernised GTD-350 turbine engine, Journal of Water and Land Development, vol. 51, p. 250-255, DOI:10.24425/jwld.2021.139036,
- Mazur K., Roman K., Wardal W., Borek K., Barwicki J., Kierończyk M., 2021:** Emission of harmful gases from animal production in Poland, Environmental Monitoring and Assessment, vol. 193, nr 6, p. 1-9, DOI:10.1007/s10661-021-09118-7, IF(1,903)
- Roman K., Barwicki J., Rzodkiewicz W., Dawidowski M., 2021:** Evaluation of Mechanical and Energetic Properties of the Forest Residues Shredded Chips during Briquetting Process, Energies, vol. 14, nr 11, p. 1-11, DOI:10.3390/en14113270, IF(3,004)
- Roman K., Roman M., Szadkowska D., Szadkowski J., Grzegorzewska E., 2021:** Evaluation of Physical and Chemical Parameters According to Energetic Willow (*Salix viminalis* L.) Cultivation, Energies, vol. 14, nr 10, p. 1-17, DOI:10.3390/en14102968, IF(3,004)
- Roman K., Roman M., Wojcieszak-Zbierska M., Roman M., 2021:** Obtaining Forest Biomass for Energy Purposes as an Enterprise Development Factor in Rural Areas, Applied Sciences-Basel, MDPI, vol. 11, nr 12, p. 1-18, DOI:10.3390/app11125753, IF(2,679)
- Roman K., Barwicki J., Hryniwicz M., Szadkowska D., Szadkowski J., 2021:** Production of Electricity and Heat from Biomass Wastes Using a Converted Aircraft Turbine AI-20, Processes, MDPI, vol. 9, nr 2, p. 1-15, DOI:10.3390/pr9020364, IF(2,847)
- Roman M., Wasiak M., Roman M., Roman K., Niedziółka A., Krasnodębski A., Królak S., 2021:** Essence of the Compensation Plan in the Process of Motivation in Multi-Level Marketing (MLM). A Case Study, Sustainability, vol. 13, nr 16, p. 1-27, DOI:10.3390/su13168738, IF(3,251)
- Roman M., Roman K., Roman M. 2021:** Spatial Variation in Particulate Emission Resulting from Animal Farming in Poland, Agriculture (Switzerland), Multidisciplinary Digital Publishing Institute (MDPI), vol. 11, nr 2, p. 1-14, DOI:10.3390/agriculture11020168, IF(2,925)
- Romaniuk W., Savinykh P. A., Borek K., Plotnikowa Y. A., V. Palitsyn A., N. Korotkov A., Roman K., Roman M., 2021:** Improvement of Gas Generator Technology for Energy Processing of Agricultural Waste, Energies, vol. 14, nr 12, p. 1-11, DOI:10.3390/en14123642, IF(3,004)
- Romaniuk W., Savinykh P., Borek K., Roman K., Isupov A. Y., Moshonkin A., Wałowski G., Roman M., 2021:** The Application of Similarity Theory and Dimensional Analysis to the Study of Centrifugal-Rotary Chopper of Forage Grain, Energies, vol. 14, nr 15, p. 1-12, DOI:10.3390/en14154501, IF(3,004)
- Wardal W., Mazur K., Roman K., Roman M., Majchrzak M., 2021:** Assessment of Cumulative Energy Needs for Chosen Technologies of Cattle Feeding in Barns with Conventional (CFS) and Automated Feeding Systems (AFS), Energies, vol. 14, nr 24, p. 1-15, DOI:10.3390/en14248584, IF(3,004)

- Barwicki J., Mazur K., Kierończyk M., Borek K., Wardal W., Roman K. 2020:** Wpływ zakwaszania gnojowicy kwasem siarkowym na wybrane właściwości fizykochemiczne gleb w przykładowych uprawach, Przemysł Chemiczny, Wydawnictwo SIGMA - N O T Sp. z o.o., vol. 99, nr 11, s. 1600-1604, DOI:10.15199/62.2020.11.2, IF(0,485)
- Nurek T., Gendek A., Roman K., Dąbrowska M. 2020:** The Impact of Fractional Composition on the Mechanical Properties of Agglomerated Logging Residues, Sustainability, vol. 12, nr 15, s. 1-13, DOI:10.3390/su12156120, 100 punktów, IF(3,251)
- Roman K., Borek K., Karwat Z. 2020:** Study of compressibility in the raw materials recycling, Inżynieria Materiałowa, Wydawnictwo SIGMA - N O T Sp. z o.o., vol. 41, nr 6, s. 19-22, DOI:10.15199/28.2020.6.3,
- Roman K., Borek K., Mazur K., Wardal W. J. 2020:** The measurements of PM2.5 dust concentration by using an integrated optical sensor, Przegląd Elektrotechniczny, Sigma NOT, vol. 96, nr 4, s. 129-132, DOI:10.15199/48.2020.04.27,
- Nurek T., Gendek A., Roman K., Dąbrowska M. 2019:** The effect of temperature and moisture on the chosen parameters of briquettes made of shredded logging residues Biomass and Bioenergy, Volume 130, Article 105368
- Roman K., Borek K., Mazur K. 2019:** The characteristics of briquetting process with resistance sensors usage, Przegląd Elektrotechniczny, R. 95 NR 7/2019, ISSN 0033-2097, DOI:10.15199/48.2019.07.21 p. 98-101
- Roman M., Roman M., Roman K. 2019:** Spatial differentiation of particulates emission resulting from agricultural production in Poland, ISSN 0139-570X , Agricultural Economics 65, 2019 (8), p. 375–384
- Nurek T., Gendek A., Roman K. 2019:** Forest Residues as a Renewable Source of Energy: Elemental Composition and Physical Properties, BioResources 14(1), p. 6-20
- Mazur K., Roman K., Borek K. 2019:** Modern Technologies of Natural Manure Treatment in Livestock Production, IJEE Iranian Journal of Energy and Environment 10 (1) ISSN:2019-2115, p. 43-48

#### OTHER PROFESSIONAL ACTIVITIES

- 12.12.2016-30.06.2019 - 154/2016 Multi-annual Program pt. „Technology and nature projects for an innovative, effective low-carbon economy in rural areas”, Activity 2.0, Expert, Resolution of the Council of Ministers No. 154/2016 of October 12, 2016, Ministry of Agriculture and Rural Development
- 01.06.2015-31.09.2019 - BIOSTRATEG1 / 270684/1 / NCBR / 2015 "Research and preparation for the implementation of energy and heat production technology in a boiler room fed with micronized biomass" (acronym BioCHP), Expert, NCBR
- 01.07.2018-31.03.2019 - BIOSTRATEG1 / 269056/5 / NCBR / 2015 "Environment, agriculture and forestry" BIOSTRATEG titled "Interdisciplinary research on improving energy efficiency and increasing the share of renewable energy sources in the energy balance of Polish agriculture" (acronym BIOGAS & EE), Expert, NCBR
- 01.01.2013-31.12.2015 - 16/10/2013 Selection and optimization of technical parameters of the process of briquetting of anisotropic materials based on computer analysis and laboratory tests, ITP Research Task Manager, Ministry of Science and Higher Education
- 14.10.2011-31.12.2015 - 202/2011 The Multi-Annual Program entitled "Standardization and monitoring of environmental projects, agricultural technology and infrastructure solutions for the safety and sustainable development of agriculture and rural areas", Action 3.3. Monitoring the efficiency of agroenergetic installations and the efficiency of energy use of raw materials. Expert, Resolution of the Council of Ministers No. 202/2011 of October 14, 2011, Ministry of Agriculture and Rural Development
- 01.01.2012-31.12.2013 - 10.7 / 02/2012 Impact on the environment of biomass production and processing technology, Contractor Research task ITP, Ministry of Science and Higher Education
- 2011/2012 - 505-10-11 260050 Selection and optimization of technical parameters of the forest biomass briquetting process based on computer analysis and laboratory tests, 2011-2012 Manager Internal Project WIP (SGGW), financed by SGGW
- 01.04.2009-31.03.2012 - POIG.01.03.01-00-096 / 08 POIG Straw - Development of methods for preparing agricultural biomass for energy use, Contractor, Operational Program Innovative Economy 2007-2013 Sub-measure 1.3.1 "Development projects", financed from the European Regional Development Fund and national funds
- 01.12.2009-30.11.2012 - 245438 (FP7-REGIONS-2009-1) BIOCLUS - Developing Innovation and Research Environment in five European Regions in the field of Sustainable Use of Biomass Resources (Development of research and innovative environment in five European regions on field of sustainable use of biomass resources), Contractor, 7th Framework Program, financed by the European Commission
- 01.03.2007-31.03.2011 - PL0073 Modeling of biomass utilization for energy purpose, Contractor, NMF Biomass, financed by the EEA Financial Mechanism, Norwegian Financial Mechanism

## **MEMBERSHIP AND ACTIVITIES IN PROFESSIONAL ASSOCIATIONS**

- 2022 – currently - Member of the Board of Reviewers of the journal Energies and Int. J. of Environment and Waste Management
- 2020 – currently - Society of Engineers and Technicians Forestry and Woodworking (Member)
- 2019 – currently - Member of Scientific Chemical Circle of Wood Technology of the Warsaw University of Life Sciences (Member)
- 2010 – currently - Polish Biomass Association Polbiom (Member)

## **PROFESSIONAL HONORS, AWARDS AND FELLOWSHIPS**

- Winner of the SGGW Rector's Scholarship for scientific achievements (2022)
- 2-time winner of the Third Degree Individual Award of the Rector of SGGW for scientific achievements (2021-2022)
- 3-time winner of a scientific scholarship - Institute of Technology and Life Sciences - PIB (2015-2017)
- EU-funded scientific scholarship "Science for business, business for science" TeklaPlus (2014)
- Travel scholarship to Norway: Scholarship and Training Fund, Financial Agreement No: FSS/2013/R2/PV/W/0149, FRSE (2014)
- 5-time winner of the scholarship for doctoral students-prosperity; Warsaw University of Life Sciences (2012-2015)
- 4-time winner of the scholarship for the best doctoral students; Warsaw University of Life Sciences (SGGW) (2010-2014)
- 5-time winner of scholarship for doctoral students; Warsaw University of Life Sciences (SGGW) (2010-2014)

*Actualisation – May 2023*