Tematyka i zakres rozpraw doktorskich w ramach dyscypliny nauki
***Inżynieria Środowiska ,Górnictwo i Energetyka w* roku akademickim 2023/2024**

Lp.	**Imię i nazwisko**	**Tematyka**	Zakres	**Telefon służbowy**	**e-mail**
1.	Dr hab. Grazyna Łaska, prof. PB	**Experimental Study on Co-Pyrolysis of Sawdust of various tree species and Bran of variouscereal species for the Clean Energy Production**	This study willanalyze the effect of thermalreaction on the pyrolysisbyproducts (bio-oil and bio-char) producedunderthree temperature conditions. The feedstockswill be subjected to proximate analysis, TGA and SEM-EDX beforepyrolysis. Physical and chemicalcharacterisation of bio-oilproduced via the following parameters:Proximate (Moisture, VolatileMatter, Fixed Carbon and Ash), FT-IR, GC-MS and SEM-EDX of the bio-oil. Fuel properties testsuch as Viscosity, Heating Value, Pour point and Flash Pointwill be determined. The resultantbiocharwill be evaluated for itspotential forpellet production and the following parameters will be assessed:proximateanalysis, ultimate analysis, ash characterization, combustion and Exhaust Analysisthusensuring zero waste tolerance	602499654	g.laska@pb.edu.pl

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2.	Dr hab. Grazyna Łaska, prof. PB	**Effectiveness of energy production from renewable sources (RES)**	Analysis of the factors influencingrenewable energy sources in selected voivodeships. in Poland. Use of energy from the use of resources - energy review method of using production efficiency. Currentlyusedcomputational methods for production efficiencywhenselecting GIS technology: SagaGIS, ArcGIS, QGIS, R. Analysis of calculation parameters and the method of their implementation. Assessment of the actual conditions of compliance with the GIS rules in the scope of a specifictype of prohibition and requiredmeetingof the criteria. Comparison of the measurement data generation data in the data model with the data willobtain	602499654	g.laska@pb.edu.pl