Curriculum Vitae

<table>
<tr><td rowspan="6">Personal Information</td><td>Name</td><td>Dariusz Knez</td><td>Gender</td><td>male</td><td rowspan="3">  </td></tr>
<tr><td>Academic Title</td><td colspan="3">Dr hab. eng., prof. AGH</td></tr>
<tr><td>College</td><td colspan="3">AGH University of Science and Technology</td></tr>
<tr><td>Discipline</td><td colspan="4">Environmental engineering, mining and energy</td></tr>
<tr><td>Email</td><td colspan="4">knez@agh.edu.pl</td></tr>
<tr><td>Mail Add.</td><td colspan="4">AGH, al. Mickiewicza 30, 30-059 Krakow, Poland</td></tr>
<tr><td>Educational Background</td><td colspan="5">AGH - 1990 to 1993 | MSc (Faculty of Drilling, Oil & Gas)
AGH - 1996 to 1999 | PhD (Faculty of Drilling, Oil & Gas)
AGH - 2017 to 2018 | D.Sc. Eng. (Faculty of Drilling, Oil & Gas)</td></tr>
<tr><td>Working Experience</td><td colspan="5">New Mexico Institute of Mining and Technology - 1993 to 1994 | Teaching assistant (Petroleum Department)
AGH - 1994 to 1999 | Teaching assistant (Faculty of Drilling, Oil & Gas)
AGH - 1999 to 2019 | Adjunct (Faculty of Drilling, Oil & Gas)
AGH - 2019 to present | Associate professor (Faculty of Drilling, Oil & Gas)</td></tr>
<tr><td>Research Interests</td><td colspan="5">Drilling engineering
Hydraulic fracturing
Drilling geomechanics</td></tr>
<tr><td>Major Publications*</td><td colspan="5">Knez, D., Quosay, A. A., Knez, D., & Ziaja, J. (2020). Hydraulic fracturing: New uncertainty based modeling approach for process design using Monte Carlo simulation technique. PLOS ONE. https://doi.org/10.1371/journal.pone.0236726
Knez, D., Rajaoalison, H., Knez, D., & Zlotkowski, A. (2019). Changes of dynamic mechanical properties of brine-saturated Istebna sandstone under action of temperature and stress. Przemysl Chemiczny. https://doi.org/10.15199/62.2019.5.22
Knez, D., & Mazur, S. (2019). Simulation of fracture conductivity changes due to proppant composition and stress cycles. Inzynieria Mineralna, 2019(2). https://doi.org/10.29227/IM-2019-02-37
Knez, D., Wiśniowski, R., & Owusu, W. A. (2019). Turning filling material into proppant for coalbed methane in Poland—Crush test results. Energies, 12(9). https://doi.org/10.3390/en12091820
Ziaja, J., Wiśniowski, R., Jamrozik, A., & Knez, D. (2018). Modern construction technologies of gas pipelines and oil pipelines. International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology</td></tr>
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	Management, SGEM, 18(1.4). https://doi.org/10.5593/sgem2018/1.4/S06.080 Knez, D., Ziaja, J., & Piwonska, M. (2018). Influence of geomechanical parameters and permeability on hydraulic fracturing interval selection. International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 18(1.4). https://doi.org/10.5593/sgem2018/1.4/S06.064 Knez, D., & Calicki, A. (2018). Looking for a new source of natural proppants in Poland. Bulletin of the Polish Academy of Sciences: Technical Sciences, 66(1). https://doi.org/10.24425/119052 Knez D., Stress acting on proppant in a hydraulic fracture and crush test research monograph — Kraków : Wydawnictwa AGH, 2017 Ziaja, J., Stryczek, S., Jamrozik, A., Knez, D., Czarnota, R., & Vytyaz, O. (2017). Sealing slurries limiting natural gas exhalations from the annular space of a wellbore. Przemysl Chemiczny, 96(5). https://doi.org/10.15199/62.2017.5.9 Andrzej Gonet, Dariusz Knez, Jan Macuda, Stanisław Stryczek, Ed. Dariusz Knez, Selected issues of wellbore hydraulics and cementing. — Kraków : Wydawnictwa AGH, 2017 Quosay, A. A., & Knez, D. (2016). Sensitivity analysis on fracturing pressure using Monte Carlo simulation technique. Oil Gas European Magazine, 42(3). Rafał Wiśniowski, Aneta Sapińska-Śliwa, Stanisław Stryczek, Dariusz Knez, Sławomir Wysocki, Aleksandra Jamrozik, Jan Ziaja, Selected new solutions concerning natural gas prospecting from shale reservoirs on the territory of Poland, ESASGD 2016 : international conferences on Earth sciences and sustainable geo-resources development : Hanoi, November 12–15, 2016
Research Projects*	Optimization of drilling parameters, including the selection of drilling technology, tools, drilling fluids and cementing vertical and horizontal holes for shale gas The development of guidelines for the design of innovative technology enabling shale gas recovery with the use of liquid CO_2 on the base of numerical and experimental research Selection of drilling fluids for drilling, with the Underbalanced Drilling system
Professional Membership	Scientific Association of the Oil and Gas Industry Engineers and Technicians Society of Petroleum Engineers
Potential Research Projects**	Drillin technology Proppants for hydraulic fracturing Wellbore stability.

* Please list achievements of recent 5 years

** This CV is intended to match Chinese and Polish Scientists within SPUC member universities, and Potential Research Projects is intended to apply for Sino-Polish or EU scientific cooperation projects.