

Pressemitteilung**Universität Passau****Kathrin Haimerl**

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<http://idw-online.de/de/news783813>Forschungs- / Wissenstransfer, Kooperationen
Elektrotechnik, Informationstechnik
überregional**Resiliency of energy systems: University of Passau attracts Iranian Humboldt-fellow****An international research community with growing importance: The University of Passau's Professor Hermann de Meer hosts Iranian Humboldt-fellow Abdorasoul Ghasemi who develops methods of modelling resiliency in modern energy systems.**

It is a topic that not only concerns the engineering branch, but society at large: Resiliency is the ability of systems to respond and recover from major unforeseen events. 'Take, for example Hurricanes or earthquakes – or just think about the recent misconfiguration in Facebook that propagates and makes the whole network unavailable for hours creating a damage of billions of dollars. The resilient operation of interdependent complex infrastructure networks is crucial in every day life which underlines the importance of my research topic', says Computer Scientist Abdorasoul Ghasemi who has dedicated his research to the resiliency of complex interdependent systems.

Since July 2021, the University of Passau's Chair of Computer Networks and Computer Communications has become Ghasemi's research home for more than 18 months. The Iranian has been awarded one of the most prestigious fellowships for experienced researchers of the renowned Alexander von Humboldt-foundation and has chosen Professor Hermann de Meer to be his host. 'I am more than happy to welcome Professor Abdorasoul Ghasemi in my team and, together with him, to develop new strategies on how modern energy systems can recover from blackouts or other major disruptive events.'

Professor de Meer and his Iranian guest are part of an international research community with a comparatively young topic, but of growing importance, which is due to some disruptive events that have happened recently. Energy systems nowadays rely on a communication and a power network that are interdependent. The communication network is used to monitor and to send actuating signals to the power network, and the power network provides the required energy for the communication network. 'So failures not only cascade in each network, but may also roll over to the other network, which recursively leads to more failures in the power grid', explains researcher Ghasemi. 'What I do in my research is to anticipate the extreme and to develop strategies how networks should respond and recover best from those unwanted events.'

The Iranian researcher became aware of Professor de Meer's work, when one of de Meer's colleagues at the University of Passau's Faculty of Computer Science and Mathematics, Professor Joachim Posegga, visited the K. N. Toosi University of Technology (KNTU), Tehran and presented the Faculty's different research projects, which also include research into resilient infrastructure for the energy transition. 'We feel honoured that Professor Abdorasoul Ghasemi chose Professor de Meer to host his Alexander von Humboldt fellowship', says the Faculty's dean, Professor Tobias Kaiser. 'It proves the outstanding research conducted here at our Faculty to develop tools for a stable and sustainable energy transition.'

Before his stay at the University of Passau, Iranian researcher Ghasemi had spent a sabbatical leave with the Computer Science Department at the University of California, Davis, United States, and at the Max Planck Institute for the Physics

of Complex Systems in Dresden. Professor Ghasemi is an Associate Professor with the Faculty of Computer Engineering of K.N. Toosi University of Technology, Tehran, Iran. The Humboldt-fellowship will last beyond Professor Ghasemi's research stay in Passau: It aims to build long-lasting ties between the Iranian researcher and his German colleagues.

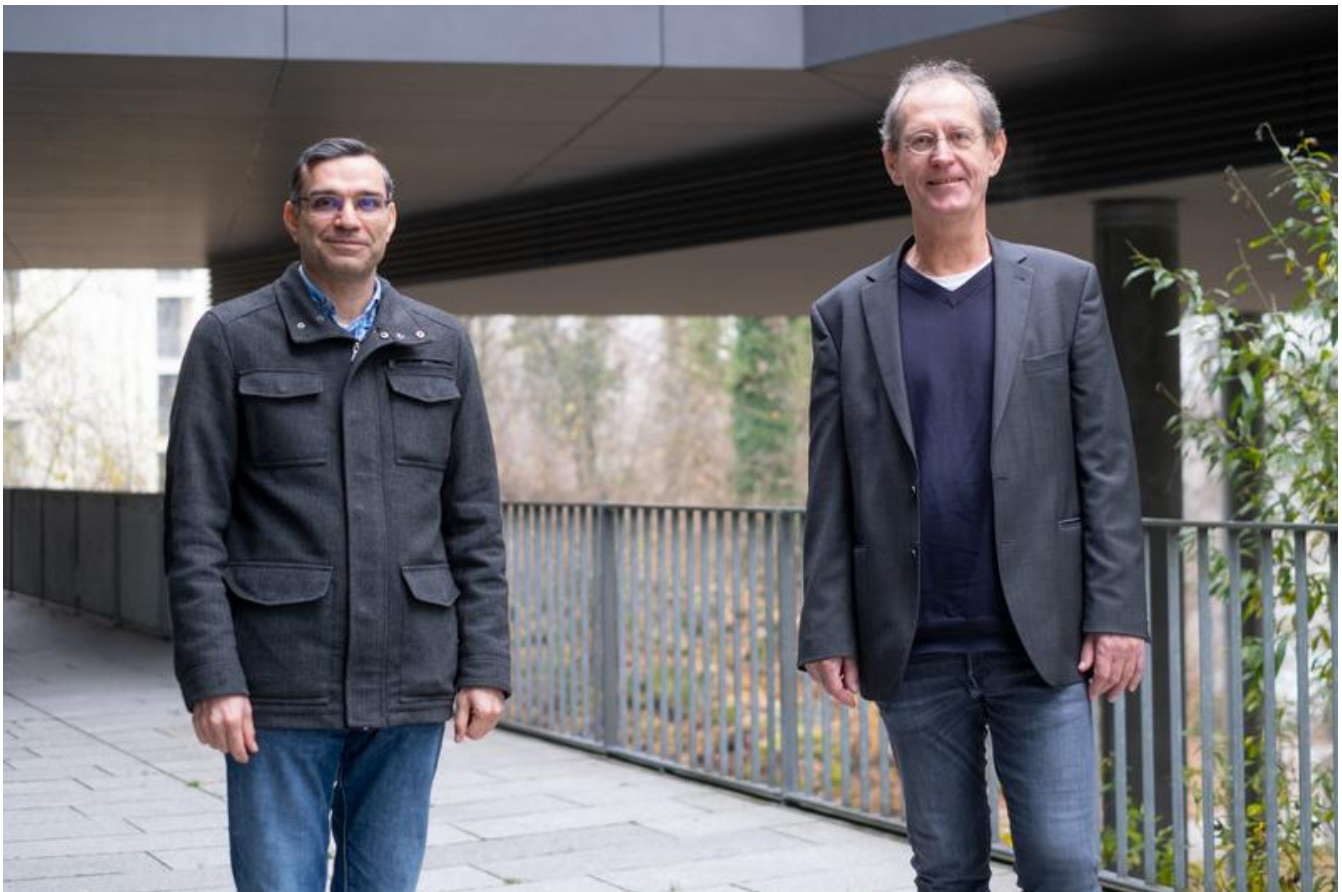
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URL zur Pressemitteilung: <https://www.digital.uni-passau.de/index.php?id=367&L;=1> Interview with Humboldt-fellow Ghasemi

URL zur Pressemitteilung: <https://www.fim.uni-passau.de/en/computer-networks/research/projects/> Overview of research projects of Professor de Meer



Humboldt-fellow Abdorasoul Ghasemi (left) and his host at the University of Passau, Professor Hermann de Meer.
Studio Weichselbaumer

