# Energy Systems Digitalisation and Cyber Security Workshop
## 1st and 2nd November 2021

| Supported by Newcastle Universities International Partnerships Seed Funding | | |
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| **Energy Systems Digitalisation**<br>**1st November** | | |
| 8.00-8.15 | Welcome and opening remarks<br><br>Introduction to the Centre for Energy | Dr Zoya Pourmirza (Newcastle University)<br><br>Dr Sara Walker (Newcastle University) |
| 8.15-8.30 | Digital Energy initiatives for energy sector in Australia | Professor Ariel Liebman (Monash University, Australia) |
| 8.30-8.45 | The digitisation journey of the energy sector, The Danish use case | Dr Razgar Ebrahimi (Technical University of Denmark) |
| 8.45-9.00 | Data governance challenges emerging from energy system digitalisation in the UK | Emily Judson (University of Exeter) |
| 9.00-9.15 | Delivering a modern digitalised energy system | Jake Verma (Energy Systems Catapult) |
| 9.15-9.30 | Break- 15 mins | |
| 9.30-9.45 | Predicting the impact of climate change on performance of energy systems using machine learning algorithms | Dr Yousef Akhlaghi (Newcastle University) |
| 9.45-10.30 | Breakout room discussion<br>   ▪ Top 5 Challenges of digitalisation of energy systems (15 minutes)<br>   ▪ Impact of digitalisation of energy by 2035 & 2050 (15 minutes)<br>   ▪ Challenges of retrofitting cyber layer over buildings and energy network (15 minutes) | |
| 10.30-10.45 | Closing discussion | Dr Zoya Pourmirza (Newcastle University) |

## Register

TRANSITION TO CLEAN AFFORDABLE ENERGY | Justice and Ethics | Energy | Security and Resilience

Demonstration | Sustainability | Policy and Regulation | Materials | Digital Innovation | Behaviour | Technology | Systems Infrastructure | Business Models | Design

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| **Cyber Security for Energy Systems**<br>**2nd November** | | |
| 8.00-8.15 | Welcome and opening remarks<br><br>Introduction to the Centre for Energy | Dr Zoya Pourmirza (Newcastle University)<br><br>Dr Sara Walker (Newcastle University) |
| 8.15-8.30 | Are we prepared to fend off cyber-attack in the energy sector? | Dr Zoya Pourmirza (Newcastle University) |
| 8.30-8.45 | Cyber security research for residential demand response in smart grids | Dr Carsten Rudolph (Monash University, Australia) |
| 8.45-9.00 | The SNIPPET project: Secure ad privacy-friendly peer-to-peer electricity trading | Dr Mustafa Asan Mustafa (The University of Manchester and KU Leuven, Belgium) |
| 9.00-9.15 | ICS cyber security in digital transformation | Parisa Akaber (Siemens) |
| 9.15-9.30 | Break | |
| 9.30-9.45 | Hoping for the best, but expecting the worst: how to talk better about security of emerging technologies? | Dr Ola Michalec (University of Bristol) |
| 9.45-10.30 | Breakout room discussion<br>- Top 5 Challenges of cyber security in energy systems (15 minutes)<br>- Lessons learned from other area research disciplines(15 minutes)<br>- Considerations to ensure cyber security when retrofitting a system in energy networks (15 minutes) | |
| 10.30-10.45 | Closing and remarks | Dr Zoya Pourmirza (Newcastle University) |

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