International Online Seminar

Mini-Grids in the Global South: Planning, Implementation and Future Perspectives

University of Oldenburg, 20 November to 06 December 2020 (online)

Programme

Day 1: Friday, 20 November 2020

Welcome and opening

Session 1: Setting the frame (120 minutes)

Keynotes:

- *The worldwide mini-grid market – an overview,* Frank Stegmüller, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Indonesia (to be confirmed)
- *Introduction of case studies from Bangladesh, India, Sierra Leone, Indonesia and Brazil and their contexts* (Lecturers)
- *Comparative analysis of case studies*, Hans Holtorf, PPRE Universität Oldenburg

Blitzlicht:

- Me and the seminar - own thematic interests and wishes

Session 2: The technology of Mini-grids (90 minutes)

Lectures:

- *Typical Configurations of solar PV mini-grid systems,* Dwipen Bourah, Global Sustainable Energy Solutions (GSES), India
- *Micro Hydropower (MHP) based Mini-Grids,* Chayun Budiono, PT Gerbang Multindo Nusantara (GMN), Indonesia
- *Hybrid Mini-Grid Systems,* Shahriar Ahmed Chowdhury, Centre for Energy Research – United International University (UIU), Bangladesh

Session 3: Grid tied Mini-grids (90 minutes)

Lectures:

- *Grid tied MHP Mini-Grids*, Chayun Budiono, GMN, Indonesia
- *Further technical concepts for Mini-Grids*, Hans Holtorf, PPRE Universität Oldenburg, Germany

Day 2: Saturday 21 November 2020

Session 1: Innovative approaches (90 minutes)

Lectures:

- *Challenges in the Optimization of Hybrid PV-Diesel Operation*, Tarikua Zenebe & Lisa Müller, Belectric GmbH, Germany
- *Modelling and Simulation including Artificial Intelligence Applications for renewable resources forecasting*, Mohamed Mamdouh Elkadragy, Karlsruhe Institute for Technology (KIT), Germany

Session 2: Market place (90 minutes)

Workshop: Topics and concrete projects for cooperation and exchange

Day 3: Friday 27 November 2020

Session 1: Socio-ecological aspects (90 minutes)

Lectures:

- *Social issues of MHP Mini-Grids in Indonesia,* Chayun Budiono, GMN, Indonesia
- *Social Dilemmas of the universalization of electricity in traditional communities in the semiarid region of Bahia,* José R. Teixeira Da Silva, Consultoria Socioambiental Ltda (CSA), Brazil
- *Ecological impacts of MHP in Indonesia*, Chayun Budiono, GMN, Indonesia
- *Ecological issues of the Lactec case study,* Kristie Kaminski-Küster, Lactec, Brazil

Session 2: Economics of Mini-grids (60 minutes)

Lectures:

- *Key Maker Model in Mini-Grids,* Majumder Dipta, INENSUS GmbH, Germany
- *The economy of MHP in Indonesia*, Chayun Budiono, GMN, Indonesia
- *Financial Assessment of Mini-Grids in Brazil, Bahia State*, Kristie Kaminski-Küster, Lactec, Brazil
- *Cost Reflective Tariffs in Mini-Grids: Experience from Sierra Leone,* Majumder Dipta, INENSUS GmbH, Germany

Session 3: Open space (90 minutes)

Workshop: Common ideas, exchange and collaborative discussion

Day 4: Saturday 28 November 2020

Session 1: Politics of Mini-Grids (90 minutes)

Lectures:

- *Implementation of Mini-Grids in to the political framework – lessons learned from Bangladesh*, Shahriar Ahmed Chowdhury, UIU, Bangladesh
- *Analysis of the ever-changing policy environment and its impacts on MHP business,* Chayun Budiono, GMN, Indonesia
- *Political context of the Project "Mini-Grids" in Brazil,* Kristie Kaminski-Küster, Lactec, Brazil

Session 2: Project Implementation I (90 minutes)

Lectures:

- *Mini-Grid Project Development Overview*, Dwipen Bourah, (GSES) India
- *Clustering of households for mini-grids formation,* Felipe Lachovicz, Lactec, Brazil
- *Construction of load profiles according to users' needs and desires,* Kiane Alves e Silva, Lactec, Brazil

Session 3: Market place (60 minutes)

Workshop: Developing cooperation agendas further

Day 5: Friday 04 Dezember 2020

Session 1: Project Implementation II (90 minutes)

Lectures:

- *Designing solar PV mini-grid systems,* Dwipen Bourah, GSES, India
- *From Paratoli Island (2014) to Monpura (2020)- Lessons learned from Bangladesh,* Shahriar Ahmed Chowdhury, UIU, Bangladesh

Keynote:

- *Sustainability of Off Grid Minigrids,* Zivayi Chiguvare, University of Namibia

Session 2: Open Space (90 minutes)

Workshop: Common ideas, exchange and collaborative discussion

Day 6: Saturday 05 Dezember 2020

Session 1: Quality Assurance (120 minutes)

Lectures:

- *Training I - the UIU Experience,* Shahriar Ahmed Chowdhury, UIU, Bangladesh
- *Training II – the PPRE Experience,* Chayun Budiono, GMN, Indonesia
- *Test Laboratories,* Shahriar Ahmed Chowdhury, UIU, Bangladesh
- *Hydro Competence Centre (HYCOM),* Chayun Budiono, GMN, Indonesia
- *Conferences for Exchange,* Shahriar Ahmed Chowdhury, UIU, Bangladesh
- *Standards and Regulations applicable to solar PV mini-grid systems,* Dwipen Bourah, GSES, India

Session 2: The way forward (90 minutes)

Future projects, cooperation and exchange of ideas

Wrap up (60 minutes)

Final statements and feedback