

## Project Information

### Webpage:

<https://www.nuneterasmus.eu/>

### Contact us

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## Acknowledgements

Partner institutions and project teams in the partner countries would like to sincerely acknowledge the Erasmus+ of the European Union for co-founding the UNET project. The support is timely and instrumental in setting up taught PhD programs in Energy Technology for enhancement of human capacity in teaching and research in the energy field among the collaborating partner universities.

### Program partner and Co-ordinator



NTNU  
Norwegian University of Science and Technology

### Program partner Quality assurance



Università degli Studi  
Guglielmo Marconi

### Curriculum partners



UNIVERSITY OF  
DAR ES SALAAM



Mekelle University  
የጊዜ ለሰላም  
No Really Care!



UNIVERSIDADE  
EDUARDO  
MONDLANE



MAKERERE  
UNIVERSITY  
We Build for the Future



Addis Ababa University  
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### Training partners



THE UNIVERSITY  
OF DODOMA



BUSITEMA  
UNIVERSITY  
Pursuing Excellence



UNIVERSIDADE SAVE  
Qualidade e Excelência



Co-funded by the  
Erasmus+ Programme  
of the European Union

## EU Erasmus+ UNET Project

University Network on PhD Program in Energy Technology (UNET), is a project focused in development of taught PhD courses and improved laboratory capacities in the energy technology fields among partner universities.

The project supports partner universities to migrate from purely research-based PhD programs towards taught based PhD programs with mandatory coursework, similar to EU standards.

The project aims at improving the quality of the PhD programs and promote sustainable collaboration between the partner universities in this area.

### Expected Project outcomes

Course Catalogue

⇒ Course descriptions

⇒ Teaching materials

Training Nodes

⇒ Laboratory equipment

⇒ Strength in research areas



First project meeting hosted by UDSM in Tanzania, between 30<sup>th</sup> August and 2<sup>nd</sup> September 2021



Second project meeting held at Arusha between 29<sup>th</sup> November and 1<sup>st</sup> December 2021

## Course Catalogue

The catalogue include a total of 17 courses to be developed by a consortium of partner universities. A total of 35 participants from different partner countries will be involved in course development.

Curriculum partners take the leading role in development of courses. Training partners participate in the implementation and Programme partners will offer expert support in course development.

Partner Institution	Course Lead-ing	Number of Partici-pants
Norwegian University of Science and Technology		
Università degli Studi		
Makerere University	3	7
Addis Ababa University	4	7
University of Dar es Salaam	3	9
Mekelle University	4	4
Eduardo Mondlane University	3	3
University of Dodoma		2
Busitema University		1
Universidade Save		2

## Application of the Courses

Developed course catalogue may serve as a pool of courses from which partner universities can utilize to establish or update taught PhD programs in energy technology related fields.

Lead Partner	Course Name	Coordinator
Makerere University (MAK)	<b>Energy Storage</b>	John Baptist Kirabira
	<b>Solar Thermal Technology</b>	Denis Okello
	<b>Heat and Mass Transfer</b>	Karidewa Nyeinga
Addis Ababa University (AAU)	<b>Wind Turbine Rotor Design</b>	Abdulkadir Aman
	<b>Energy Modeling and Optimization</b>	Demiss Alemu
	<b>Computational Fluid Dynamics and Heat Transfer</b>	Demiss Alemu
	<b>Advanced Power Generation</b>	Abdulkadir Aman
University of Dar es Salaam (UDSM)	<b>Pumps and Hydro Turbines</b>	Cuthbert Kimambo
	<b>Process Control and Instrumentation</b>	Abraham Temu
	<b>Numerical and Computational Methods</b>	Joseph Kihedu
Mekelle University (MU)	<b>Wind Turbine Design</b>	Mulu Bayray
	<b>Aerodynamics</b>	Mulu Bayray
	<b>Numerical Optimal Control</b>	Gebermichael Team
	<b>Experimental Methods</b>	Asfafaw Haileselasie
Eduardo Mondlane University (UEM)	<b>PV Technologies</b>	Boaventura Cuamba
	<b>Bioenergy</b>	Alberto Tsamba
	<b>Advanced Statistics and Methods of Data Analysis</b>	Rogério Uthui

## Training Nodes

Partner universities have strong needs for extending and improving research facilities. The project approach is to develop specific area of research capacity among curriculum partners through acquiring of modern laboratory equipment. As scientific equipment can be rather expensive, desirable research capacity may not be achieved at the expected standards and extents for each partner. Thus, shared access to "Training Node" refers to research specialization among the partners envisaged to be a cost effective approach. This approach will also promote future research collaboration among project

Partner Institution	Training Node	Research Focus
Makerere University	<b>Solar Thermal Energy</b>	Solar Thermal, Gasification, Heat storage
Addis Ababa University	<b>Computational Methods</b>	Computational Methods, Thermal Systems, Wind Energy
University of Dar es Salaam	<b>Hydropower</b>	Small Hydropower, Solar Thermal, Adsorption Refrigeration
Mekelle University	<b>Wind Power</b>	Wind Energy, Solar Thermal
Eduardo Mondlane University	<b>Photovoltaics</b>	Photovoltaics, Solar Thermal