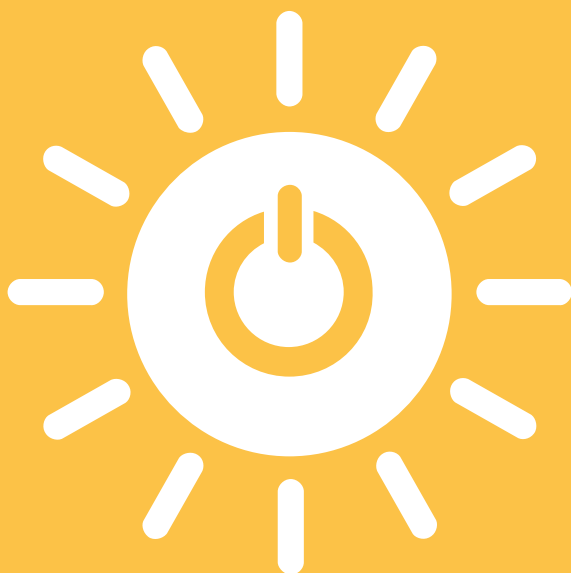


# 7 AFFORDABLE AND CLEAN ENERGY



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“After water and food, energy is one of the key enablers of human life. Energy is central to nearly every major challenge and opportunity the world faces today and access to energy for all is essential. But energy needs to be available and affordable to all to allow future development, and it needs to be clean in order to ensure that the development can be sustainable.”

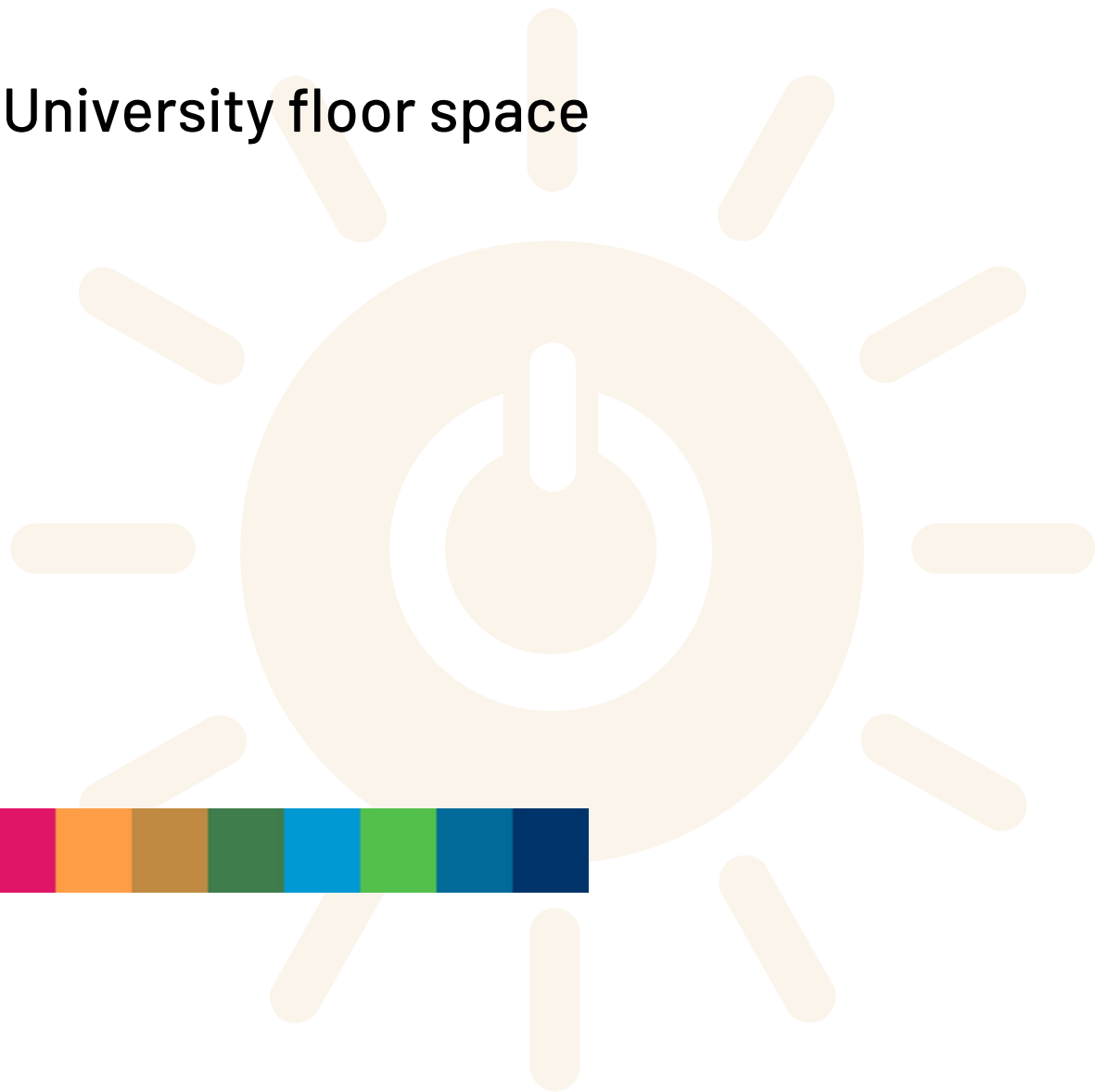
(THE Impact Rankings)

7,255,084 kWh

Total energy used

528,225 m<sup>2</sup>

University floor space



# 7 AFFORDABLE AND CLEAN ENERGY



## UNIVERSITY MEASURES TOWARDS AFFORDABLE AND CLEAN ENERGY ITS Student's Innovation for Renewable Energy

The increasing demand for electricity and limited access to electricity are two problems often faced by the community of Kalinegoro Village, Magelang Regency in Central Java. With the critical situation, ITS students from Product Design Department initiated the innovation of a waterwheel that produces electricity with renewable energy. The waterwheel can deliver 500 Watts of electricity and has an inverter with a capacity of 6000 Watts. This power input can operate 24 hours a day and provide electricity for three houses.



## ENERGY AND THE COMMUNITY

### ITS Helps Provide Clean Energy for the Local Community



Redesain dan Rancang Bangun Ulang Pemanfaatan Pembangkit Listrik Tenaga Air sebagai Sumber Energi Alternatif di Desa Duren Kecamatan Gading Kabupaten Probolinggo

Several areas in Indonesia have abundant potential for water flow, one of which is the Duren Village, Gading District in Probolinggo Regency. However, even though the village already has 18 Micro Hydro created by the villager, it is still inadequate. Therefore, this prompted the ITS Community Service Lecture team (KKN Abmas) from the Physics Department to be directly involved in developing water management through the Micro Hydro Power Plant (PLTMH). Through this program, ITS hopes the academic community can realize the 7th SDG's goal regarding alternative energy that can support improving the quality of life in Indonesia.

