Title of the Challenge

Automated Distribution of Dormitory Places for Exchange Students

What is the main issue the challenge addresses?

Every semester, the TUM Global & Alumni Office receives a limited number of places in the dormitories of Studierendenwerk München to distribute among exchange students from all around the world. So far, this is done mostly manually, based on experience from the past.

Each room has a set of characteristics, such as location (i.e. distance to the various campuses of TUM), type (e.g. single room, shared or own kitchen / bathroom). Each student also brings a set of characteristics, such as field of study (i.e. campus), gender, country of origin, home university.

The aim of this challenge is to create a software to automatize the distribution of dormitory places for exchange students to achieve an optimal outcome for all sides. The distribution can probably be modelled as a mathematical optimization problem. The time saved can then be used e.g. for better counselling services for the students or for the acquisition of additional rooms on the private housing market.

Call to Action

Create a software / technical solution to automatize the distribution of dormitory places for exchange students to achieve an optimal outcome for all sides. The distribution can probably be modelled as a mathematical optimization problem.

What is the desired impact of the challenge?

Matching exchange students with the optimal room for them. Thereby, freeing up resources that can then be used for services such as counseling or acquiring additional housing places on the private market

Related SDGs

Who is behind this challenge?

TUM Global & Alumni Office