

SEMINAR III

Wednesday, 19.6.2024, 14:00, Kolar's Lecture Hall

Geometry-based reduction of rare-earth-containing raw materials for permanent magnets

Anubhav Vishwakarma, Jožef Stefan Institute

Over the past few decades, energy crises and environmental degradation have affected billions of people, hence it is important to search for alternative, renewable sources. At the same time, it is becoming clear that the availability of certain materials is limited due to various reasons, emphasizing a need for reduced consumption.

In this seminar, I will present the generation of electricity by converting human energy on the basis of magnetic induction, which is sufficient to charge the batteries of portable devices. The focus will be on a smart design of the required magnets, which can be made of about 20% less raw materials than conventional solutions. The idea, which is demonstrated in the frame of finite-element modeling, might be realized by means of additive manufacturing.

Kindly invited.