

Univerza
v Ljubljani

Fakulteta *za kemijo*
in kemijsko tehnologijo

p.p. 537, Večna pot 113
1001 Ljubljana
telefon: 01 479 80 00
faks: 01 241 91 44
dekanat@fkkt.uni-lj.si



VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI

doc. dr. Tomaž Žagar

GEN energija, d.o.o.

z naslovom:

Nuclar Power in Space: past, current & future

v sredo, 3. 2. 2021 ob 15. uri,
preko spletnega orodja Zoom

<https://us04web.zoom.us/j/78054456303?pwd=a1dyR0twRTFNOCTnMTZSZ3pKaUU2dz09>

(Meeting ID: 780 5445 6303, Passcode: gR76d6)

Predavanje bo v angleškem jeziku.

Vljudno vabljeni!

Abstract:

All human activities need energy, and space research is no exception. On the other hand, mass is the factor that greatly limits all space flights. Therefore, for successful space exploration, it is necessary to have as much energy for as little mass. Nuclear technologies have by far the best energy per mass ratios. The density of nuclear energy is up to a million times higher than all other energy sources. It is therefore not surprising that nuclear technology and space research have been linked since the early 1960s. Plutonium-charged thermoelectric batteries provide vital electricity to many satellites and various space probes. A few dozen real nuclear reactors are circulating in Earth orbit. The lecture will also present the history of the use of nuclear thermal reactors for space rocket propulsion and the history of operating nuclear-powered rocket engines developed in the USA between 1959 and 1972. These developments have brought many new insights and new materials. Nuclear technology, however, is also the only serious source of energy that humanity can already use to power major research devices on Mars and beyond. This solutions have also practical applications on Earth.