

Opis delovnega mesta mladega raziskovalca/ke (*Description of the Young Researcher's position*)

1. Članica UL (*UL member*):

Fakulteta za elektrotehniko

2. Ime, priimek in elektronski naslov mentorja/ice (*Mentor's name, surname and email*):

Marko Jankovec, marko.jankovec@fe.uni-lj.si

3. Raziskovalno področje (*Research field*):

Elektronika

4. Opis delovnega mesta mladega raziskovalca/ke (*Description of the Young Researcher's position*):

Vključuje morebitne dodatne pogoje, ki jih mora izpolnjevati kandidat/ka za mladega raziskovalca/ko, ki niso navedeni v razpisu za mlade raziskovalce.

slo:

Mladi raziskovalec bo vpet v raziskovalno delo raziskovalnega programa »Fotovoltaika in elektronika« (P2-0415, 2022-2027) in v tekoče raziskovalne projekte s področja mikroelektronike in integriranih senzorskih sistemov. Raziskovalno delo mladega raziskovalca bo osredotočeno na področje raziskav in načrtovanja inovativnih integriranih mikroelektronskih sistemov, ki bo zajemalo modeliranje, načrtovanje, simulacije, verifikacijo in eksperimentalni del.

Podrobnejši cilji raziskav in predvideni rezultati raziskovalnega dela mladega raziskovalca:

- Zasnova, načrtovanje in analiza naprednih integriranih filtrskih struktur na siliciju
- Zasnova, načrtovanje in analiza naprednih struktur za učinkovito AD pretvorbo
- Postavitev naprednih merilnih metod za karakterizacijo razvitih integriranih sistemov

Od kandidata se pričakuje poznavanje teorije vezij in sistemov, digitalnih struktur in analize ter načrtovanja linearnih in nelinearnih elektronskih vezij.

eng:

The young researcher will be involved in the research program "Photovoltaics and Electronics" (P2-0415, 2022-2027) as well as in ongoing research projects in the field of microelectronics and integrated sensor systems. The primary focus of the young researcher's research work will be the design of innovative integrated microelectronic systems, which will involve activities such as modeling, planning, simulations, verification, and experimental work.

The research objectives of the young researcher are as follows:

- Designing, developing, and analyzing advanced integrated filter structures on silicon.
- Designing, developing, and analyzing advanced structures for effective AD conversion.
- Implementing advanced measurement methods for the characterization of developed integrated systems.

To achieve these objectives, the candidate is expected to possess knowledge of circuit and system theory, digital structures and analysis, and the design of linear and non-linear electronic circuits.

