



УНИВЕРЗИТЕТ
У НОВОМ САДУ



ФАКУЛТЕТ
ТЕХНИЧКИХ НАУКА

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ИНТЕГРИСАНИ
СИСТЕМ
МЕНАџМЕНТА
СЕРТИФИКОВАН ОД:



171. Sastanak IEEE u Novom Sadu / 171st IEEE Meeting
in Novi Sad
Obaveštenje / Announcement

Doc. dr Veljko Pejović

**Faculty of Computer and Information Science,
University of Ljubljana, Slovenia**



Univerza v Ljubljani
Fakulteta za računalništvo
in informatiko

u **četvrtak, 6. 6. 2019.** u sali 106 (I spr.)
Fakulteta tehničkih nauka u Novom
Sadu, sa početkom u **15:00 h**, održaće

On **Thursday, June 6, 2019**, in the **Hall
106 (1st floor)** of the Faculty of Technical
Sciences Novi Sad at **3:00 pm** will deliver

P R E D A V A N J E L E C T U R E

Cognitive Load Inference for Ubiquitous Computing Adaptation

Izvođenje kognitivnog opterećenja za adaptaciju na sveprisutno računarstvo

Abstract: From not disturbing a focused programmer, to entertaining a restless commuter waiting for a train, personal ubiquitous computing devices could greatly enhance their interaction with humans, should they only be aware of the user's cognitive load. While mobile sensing and machine learning lead to impressive advances in the inference of human movement, physical activity, routines, and other behavioural aspects, inferring cognitive load remains challenging due to a subtle manifestation of a user's mental engagement via vital signal reactions. These signals are often captured with obtrusive, expensive, purpose-built equipment, preventing seamless cognitive load inference for human - ubiquitous computing interaction adaptation. In our work we aim to enable large-scale unobtrusive cognitive load inference. In the talk I will present our experiences from three different user studies in which we built and evaluated cognitive load inference models relying on data coming from a commodity smartphone, a wearable sensing device, and software-defined-radio-based wireless radar. Finally, I will present our guidelines for future efforts in cognitive load inference and argue for closer interdisciplinary collaboration in this exciting research domain.

Odsek za primenjene računarske nauke i informatiku i



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