



CREATING ROBUST SOFTWARE FOR BETTER SCIENTIFIC OUTCOME

October 4 – 5, 2017

VŠB - Technical University of Ostrava
IT4Innovations building, training room 207

LECTURERS

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Computational science and engineering communities develop complex applications to solve scientific and engineering challenges. These applications have many moving parts that need to interoperate with one another. The accuracy and reliability of results produced by the scientific software depends not only on the individual components behaving correctly, but also on the validity of their interactions. Therefore, a **rigorous software process** is a critical requirement for scientific productivity using such software. However, most science teams struggle to find a good solution for themselves, partly due to lack of training and partly due to lack of resources within the team. **IDEAS** (www.ideas-productivity.org), a DOE-funded project aimed toward increasing scientific software productivity, has participants who have faced and resolved many of these challenges. Many of these participants come from scientific software projects (including hypre, PETSc, SuperLU and Trilinos) that have succeeded in instituting a **strong culture of software engineering**, where it is perceived as an asset in producing scientific results rather than a tax on limited resources. This tutorial leverages the combined expertise of various IDEAS project members to provide a **methodology for devising a software process** that meets the needs of individual projects.

Course Agenda:

Wednesday October 4, 2017

09:30	10:00	Registration
10:00	11:30	Motivation and Overview
11:30	13:00	Lunch break
13:00	14:30	Git – Introduction and advanced features
14:30	15:00	Coffee break
15:00	16:30	Testing and Verification
16:30	17:00	Coffee break
17:00	18:00	Testing and Verification

Thursday October 5, 2017

09:00	10:30	Agile methodologies via Kanban and GitHub
10:30	11:00	Coffee break
11:00	12:00	Reproducibility
12:00	13:00	Licensing
13:00	14:00	Lunch break
14:00	15:30	Software lifecycle, documentation and community impact



More information and registration:
<http://training.it4i.cz/en/CRSBSO-10-2017>