

## PhD research pre-proposal

<b>Code:</b> TICLab-2021/PhD1	
<b>Title:</b> Leveraging Data Analytics to Support Software Development Teams during their Decision-Making Process	
<b>Supervisors:</b> Prof. Latifa Guerrouj and Prof. Mohammed Boulmalf (UIR)	
<b>Host college:</b> College of Engineering and Architecture	<b>Host research unit:</b> TICLab

### SUMMARY OF THE RESEARCH PRE-PROPOSAL

Modern software development aims to deliver, on time, high-quality software. Most often, however, software organizations face not only unrealistic deadlines or time pressure, but also a large amount of data produced by software development projects. This data ranges from source code to software informal documentation such as users' feedback, software microblogs, code reviews, software forums, bug reports, etc. While this data contains pertinent knowledge and insights about software development projects, such knowledge needs to be mined and transformed into actionable techniques and tools that can help software developers and quality assurance teams make proactive decisions. To achieve this goal, our research project will leverage Mining Software Repositories, Empirical Software Engineering, and Data Analytics.

### REQUIRED ACADEMIC QUALIFICATIONS & SKILLS

- Programming skills (Java, Perl, etc.).
- Database skills (e.g. Oracle, MySQL, etc.)
- Background/courses on Data Mining and—or Machine Learning
- French and English writing skills
- Motivation and outcome orientation