Title: Natural Language Processing, Deep and Machine Learning for Software Engineering

Scope:
Recent years have seen an implosion of theory, techniques, and tools from the (psycho)linguistic and artificial intelligence disciplines, to recognize behavior, affect, and cognition of people. This newly acquired knowledge has begun to be used in software engineering research to better understand various aspects belonging to the following areas:

- Software requirements
- Software design
- Software construction
- Software testing
- Software maintenance
- Software configuration management
- Software engineering process
- Software engineering tools and methods
- Software quality
- Project and team management

Examples include but are not limited to: understanding communication happening in various venues (issue discussion, forums, video and textual chats, …); predicting events such as an issue resolution; classifying requirements and bugs automatically; gathering the team mood, building intelligent digital assistants (see GitHub Copilot) and bots; self-adaptive systems for teaching computer science.

Aim: The present seminar has the aim to acquire a state-of-art knowledge related to topics belonging to the aforementioned scope and discuss the implications for research and those for the software development industry.

Contact:
Lisa-Marie Michels: lisa-marie.michels@iste.uni-stuttgart.de
Kasra Habib: kasra.habib@iste.uni-stuttgart.de