Preface: 8th Workshop on Natural Language Processing for Requirements Engineering (NLP4RE'25)

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1. Preface

Natural language processing (NLP) has played an important role in several computer science areas, and requirements engineering (RE) is not an exception. For over 25 years, several works were published on the application of NLP techniques to address RE specific problems, such as traceability, categorisation, defect detection, model generation, and more. In the last few years, the advent of massive and heterogeneous natural language RE-relevant sources, like tweets and app reviews, has attracted even more interest from the RE community in NLP. Furthermore, we witness the novel golden age of NLP technologies, driven by advancements in Large Language Models (LLMs), which have significantly enhanced the accuracy of various NLP tasks.

The current document is a preface to the proceedings of the 8th Workshop on Natural Language Processing for Requirements Engineering (NLP4RE'25, https://nlp4re.github.io/2025/), co-located with the 31st International Working Conference on Requirements Engineering: Foundation for Software Quality (REFSQ 2025) held in Barcelona, Spain.

The workshop features two exciting keynotes: one keynote from Eric Knauss (Chalmers, University of Gothenburg, Sweden) and one keynote from Ramon Ferrer (Universitat Politècnica de Catalunya, Spain).

This year, the NLP4RE workshop received 9 submissions. Each paper was independently reviewed by three program committee members. Based on these evaluations, five papers were accepted: 2 long research papers, 2 short research papers and 1 project report.

Additionally, the workshop features a special presentation of the *Handbook on Natural Language Processing for Requirements Engineering*, by Alessio Ferrari and Gouri Ginde (Eds.), a comprehensive guide on how natural language processing (NLP) can be leveraged to enhance various aspects of requirements engineering (RE).

2. Papers presented at NLP4RE'25

Long research papers

- Syed Tauhid Ullah Shah, Mohamad Hussein, Ann Barcomb and Mohammad Moshirpour. From Inductive to Deductive: LLMs-Based Qualitative Data Analysis in Requirements Engineering
- Ekrem Bilgehan Uyar, Ali Ergin Gürsoy, Cemil Gökçe and Tuğba Taşkaya Temizel. Low-level Hardware Requirement Classification Using Large Language Models: Challenges, Insights, and Future Directions for Embedded Control Systems

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Short research papers

- Rrezarta Krasniqi. Open Challenges in NLP for NFRs: A Focus on Semantics, Generalization, and Interpretability
- Vibhashree Hippargi, Erik Kamsties and Jürgen Naumann. Evaluating the Capabilities of LLMs in Traceability Maintenance for Automotive System and Software Requirements

Project reports

- Quim Motger, Marc Oriol Hilari, Max Tiessler, Xavier Franch and Jordi Marco. Mining App Reviews for User Feedback Analysis in Requirements Engineering: A Project Report

3. Program Committee

We warmly thank all the reviewers of our Program Committee (PC), who helped in the selection of the papers by providing timely and accurate reviews. The PC members of NLP4RE'25 are:

- Sallam Abualhaija, University of Luxembourg, Luxembourg
- Ann Barcomb, University of Calgary, Canada
- Daniel Berry, University of Waterloo, Canada
- Mitra Bokaei Hosseini, University of Texas, USA
- Fabiano Dalpiaz, Utrecht University, Netherlands
- Henning Femmer, South Westphalia University of Applied Sciences, Germany
- Julian Frattini, Blekinge Institute of Technology, Sweden
- Vincenzo Gervasi, University of Pisa, Italy
- Frank Houdek, Mercedes Benz, Germany
- Irum Inayat, Chalmers, Sweden
- Vijayanta Jain, University of Maine, USA
- Sylwia Kopczynska, Poznan University of Technology, Poland
- Tong Li, Beijing University of Technology, China
- Soo Ling Lim, University College London, UK
- Luisa Mich, University of Trento, Italy
- Mohammad Moshirpour, University of California, USA
- Mattia Salnitri, Politecnico di Milano, Italy
- Nicolas Sannier, University of Luxembourg, Luxembourg
- Stefan Schwedt, Heriot Watt University, UK
- Laura Semini, University of Pisa, Italy
- Michael Unterkalmsteiner, Blekinge Institute of Technology, Sweden