Second Call for Participation

EUROLAN-2017 – Summer School on Biomedical Text Processing
10 – 17 September 2017, Constanța, Romania
http://eurolan.info.uaic.ro/2017/

The 13th in the series of EUROLAN Schools

Biomedical Text Mining (BioNLP) applies natural language processing (NLP) techniques to identify and extract information from scientific publications in biology, medicine, and chemistry, in order to discover novel knowledge that can contribute to biomedical research.

The growth of BioNLP over the past fifteen years is due in large part to the availability of web-based publication databases such as PubMed and Web of Science coupled with increasing access to anonymized electronic medical/health records. The large size of the biomedical literature and its rapid growth in recent years make literature search and information access a demanding task. Health-care professionals in the clinical domain face a similar problem of information explosion when dealing with the ever-increasing body of available medical/health records in electronic form. Beyond merely identifying texts relevant to a particular interest, BioNLP applies sophisticated NLP information extraction (IE) technologies (e.g., event extraction or entity-relation extraction) to identify and analyze text segments to produce information about, or even models, of phenomena such as drug or protein interactions, gene relations, temporal relations in clinical records, biological processes, etc. Overall, the application of automatic NLP techniques to unstructured text in scientific literature and medical records enables life scientists to both find and exploit this data without the significant effort of manual searching and researching.

EUROLAN-2017 has engaged several well-known researchers in the fields of BioNLP and NLP to provide a comprehensive overview of language processing models and techniques applicable to the biomedical domain, ranging from an introduction to fundamental NLP technologies to the study of use cases and exploitation of available tools and frameworks that support BioNLP. Each tutorial is accompanied by one or two hands-on sessions, in which participants will use text mining tools to explore and exploit several varieties of biomedical language resources, including cloud-based repositories of scientific publications, annotated biomedical corpora, databases and ontologies of biomedical terms, etc.

Invited Lecturers

- *Mihaela Breabăn* – "Alexandru Ioan Cuza" University of Iași (Romania)
Tutorial: Open-Source Frameworks for Big Data Processing
Hands-on exercises: Textual data processing on Hadoop

- *Kevin Cohen* – University of Colorado School of Medicine (USA) and LIMSI, CNRS, Université Paris-Saclay, Orsay (France)
Tutorial: Language and linguistics in NLP/NLP for biomedical language
Hands-on exercises: Empirical investigations of the implications of the nature of biomedical language for the design of experiments in natural language processing

- *Noa Patricia Cruz Diaz* – Virgen del Rocio University Hospital (Spain)
Tutorial: Negation and Speculation Detection in Biomedical Texts
Hands-on exercises: Rule-based versus machine-learning tools for automatic identification of negation

- *Eric Gaussier* – University Grenoble Alps (France)
Tutorial: Information extraction. Techniques for Mining Biomedical Texts
Hands-on exercises: Analysis and discussion on (some) information extraction tools for biomedical texts (together with Pierre)

- *Nancy Ide* – Vassar College (USA)
Tutorial: Mining Scientific Literature with the LAPPS Grid
Hands-on exercises: Data discovery and mining using major scientific publication databases

- *Pierre Zweigenbaum* – LIMSI, CNRS, Université Paris-Saclay, Orsay (France)
Tutorial: Detecting Medical Concepts in Clinical Texts (named entity extraction and use of specialized vocabularies, terminologies, ontologies)
Hands-on exercises: Analysis and discussion on (some) information extraction tools for biomedical texts (together with Eric)

Venue

EUROLAN-2017 is hosted by the "Ovidius" University of Constanța, Faculty of Mathematics and Computer Science and Faculty of Medicine in Constanța, Romania.

The city of Constanța is the largest port on the Black Sea, in the Romanian province of Dobruja (known during the Roman Empire as Scythia Minor). The city itself was historically known as the Roman metropolis Tomis. Founded in 600 BC, Constanța is the oldest continuously inhabited city in Romania.

In AD 8, the Latin poet Publius Ovidius Naso (known as Ovid in the English-speaking world) was banished to Tomis by the emperor Augustus and spent the remainder of his life there. This year, the city is celebrating the 2000th anniversary of the poet's death. A statue of Ovid stands in the Ovid Square (Piața Ovidiu) of Constanța in front of the Old Town History Museum. One of the most famous attractions in Constanța is the Edificiul Roman cu Mozaic, comprising more than 850 m^2 of colorful Roman mosaics from the end of the 4th century AD.

Programme

Three or four tutorial and hands-on sessions will be scheduled each day, lasting 1.5 hours each. The balance of tutorials and hands-on session varies from topic to topic. The final schedule will be available on the School's website soon.

The School will commence on Sunday evening, September 10, with the registration of participants and an welcome reception. Evenings provide the occasion to go out in the city, enjoy discussions with, and make friends. A half-day excursion will be organized in the surroundings, possibly cruising to the island in the middle of the lake in front of Mamaia, an exquisite summer resort near Constanța.

Satellite event

MEDA-2017 – an workshop on Curative Power of MEdical DAta will take place during the EUROLAN Summer School. The intention of the workshop is to allow participants to present work related to biomedical data in front of practitioners, researchers, and scholars, to share with their colleagues in the School examples, interesting use cases, processing models, and to discuss ways of analysis of biomedical data. The participation with a paper in the satellite event encumbers a reduction of the registration fee for EUROLAN-2017. A MEDA-2017 call for participation is issued simultaneously with this call.

Accommodation

Low-cost accommodation for EUROLAN students is available in the University's hostel (shared double rooms). Alternatively, participants may opt for a number of hotels in the city of Constanța or Mamaia.

Registration and fee

Before 4 August: 400 EUR
5 August and later: 450 EUR

These are fees applicable only to students; for other types of participants, please see
http://eurolan.info.uaic.ro/2017/information.html.

Important Dates

- Registration open: May 31, 2017
- Last day for early registration: August 4, 2017
- Last day for late registration: August 31, 2017
- EUROLAN School: September 10-17, 2017

Program Committee

Dan Cristea – "Alexandru Ioan Cuza" University of Iași and Romanian Academy
Nancy Ide – Vassar College (USA)
Dan Tufiș – Romanian Academy

Local Organizing Committee

Alexandru Bobe (Local Chair) – "Ovidius" University, Constanța
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Lucian Gâdioi – "Alexandru Ioan Cuza" University of Iași
Daniela Gîfu – "Alexandru Ioan Cuza" University of Iași and Romanian Academy, Iași
Adrian Iftene – "Alexandru Ioan Cuza" University of Iași
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Andrei Scutelnicu – "Alexandru Ioan Cuza" University of Iași and Romanian Academy, Iași
Diana Trandabăț – "Alexandru Ioan Cuza" University of Iași

Contact

Dan Cristea: dcristea@info.uaic.ro
Nancy Ide: ide@cs.vassar.edu
Dan Tufiș: tufis@racai.ro

Organizers

- Romanian Academy, with the Institute of Computer Science in Iași and the Research Centre for Artificial Intelligence in Bucharest
- "Alexandru Ioan Cuza" University in Iași, with the Faculty of Computer Science
- "Ovidius" University in Constanța, with the Faculty of Mathematics and Computer Science and the Faculty of Medicine
- Vassar College
- Academy of Technical Sciences of Romania