

Linked Open Data

Overview

LOD (Linked Open Data) is a paradigm where standardized data is open and linked in the Web. It constitutes, so far, the most advanced form of the Web of Data where specific Semantic Web standards and best practices are applied in order to provide meaning and context to the data made available for use and reuse.

There are a number of LOD-related initiatives around the world today. The European Union has made efforts to provide its institutions working with public data or public interest with the means for them to make their data available as LOD. Some of these initiatives are the European Interoperability Reference Architecture (EIRA), the European Interoperability Framework (EIF) and the European data portal. At the same time, other organizations related to the production of web standards have developed various specifications that can be used in the context of public data. This is the case of the Dublin Core Metadata Initiative (DCMI) and the World Wide Web Consortium (W3C).

This course is intended, on the one hand, to familiarize students with these initiatives and their interrelationships and, on the other hand, to give them tools to get their hands on the ground and experiment to define and implement a small project of linked open data.

The course will run under a project-based learning (PBL) methodology. The students will be divided in teams of three or four and each team will have a specific and very delimited project to develop. At the end of the course each team should have 1) defined a preliminary architecture for a specific linked open data application; 2) defined and transformed at least two different datasets as LOD; and 3) make available the data using a triple store.

Dates	November 06-11, 2023. Number of participants for the course will be limited to fifty.
Modules	<i>Module 1: Introductory Concepts: Data and services;</i> <i>Module 2: Supervised exploration of Linked Open Data architectures;</i> <i>Module 3: Supervised exploration of EIRA;</i> <i>Module 4: Basics of the Semantic Web, metadata and RDF;</i> <i>Module5: Exploration of triple stores and RDF store services.</i>
You Should Attend If...	You are a UG/ PG, or Doctoral student. Faculty members and corporate professionals, interested in Data Science, Big Data, and Linked Open Data, may also attend.
Fees	The participation fees for taking the course is as follows: Participants from abroad: US \$200. Indian Students (UG/PG): Rs.1000; Research scholars (M Phil/PhD): Rs.2000; Faculty/others (Academic Institutions): 3000. The above fee is towards participation in the course, all instructional materials, lunch, tea, and snacks etc. Accommodation and the travel expenses should be paid by the participants. Accommodation in the guest house may be provided on a space available basis with early reservation. Mode of payment: Please contact the Course Co-Ordinator.

The Faculty



Ana Alice Baptista is a professor at the Information Systems Department, and a researcher at ALGORITMI Center, both at the University of Minho, Portugal. She

was the chair of the Dublin Core Metadata Initiative (DCMI) in 2017/2018. She participated as PI and as a regular researcher in several R&D projects, including EMPOWER-SSE (<http://empowersse.net/>). She was an evaluator of project proposals under FP7. Her main areas of interest include Metadata, Linked Data and the Open Movement both under their technological and social perspectives. For more information, please go to <https://www.cienciavitae.pt/201D-B2FC-E126>



Dr. Animesh Dutta, Department of Computer Science and Engineering, National Institute of Technology Durgapur, India. Animesh Dutta received his B.E.

and M.Tech degrees from NIT Durgapur, India. He completed his PhD from Jadavpur University, India. He is currently an Associate Professor in the Department of Computer Science & Engineering, NIT, Durgapur, India. Professor Animesh Dutta's research interests are Semantic Web and Linked Data Engineering, Big Data & Social Network Analysis, and Multi-agent Systems. Professor Animesh has supervised a number of PhD/ M. Tech scholars, and handled a number of externally funded research projects (both national and international) in the capacity of PI/Co-PI. He has also published more than 50 peer-reviewed journal papers and top-tier conference papers. He is an awardee of the Visvesvaraya Young Faculty Research Fellowship Award in 2016 by the Ministry of Electronics and Information Technology (MeitY), Govt. of India and ASEM-DUO Professor Fellowship 2020 with Claude Bernard University Lyon 1, France by the European Union. For more information, please go to <https://shorturl.at/esCOU>

Course Co-Ordinator

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Note: Lectures will be delivered in hybrid mode, so the audience have the opportunity to attend the lecture both in online or physical mode at NIT Durgapur