LDAC2019 - 7th Linked Data in Architecture and Construction Workshop (17 - 21 June 2019)

The LDAC workshop series provides a focused overview on technical and applied research on the usage of **semantic web, linked data and web of data technologies** for architecture and construction (design, engineering, construction, operation, etc.). It aims at bringing together researchers, industry stakeholders, and standardization bodies of the **Linked Building Data (LBD) community**. The aim of the workshop is to present current developments, coordinate efforts, **gather stakeholders**, elaborate use cases, and plan future activities. The topic of the 2019 event is how to use the semantic web technologies for building information management in diverse practical use cases. The LDAC 2019 event provides an opportunity to present and openly discuss these use cases.

http://linkedbuildingdata.net/ldac2019/

CALL FOR PAPERS

This year's LDAC workshop takes place in **Lisbon, Portugal**, and is locally organized by the Design and Computation Group (DCG) of **Faculdade de Arquitetura, Universidade de Lisboa**, in partnership with **Beta-i**. In this workshop, the main aim is to evaluate the current status of the different available ontologies to capture building data. This includes:

- the ifcOWL ontology (buildingSMART)
- Linked Building Data ontologies: BOT, PRODUCT, PROPS, OPM (W3C)
- geospatial ontologies

- infrastructure ontologies (oil&gas, roads, tunnels, rail)
- HVAC ontologies
- building automation ontologies (BACS, DogOnt, SAREF)
- semantic sensor ontologies (SSN)

Aside the development and usage of these ontologies, the purpose of the LDAC workshop is to also investigate ways in which the **ontology-based data** can be combined into a complete and holistic set of available building data.

Finally, and most importantly, several **industrial cases** are invited, presenting interesting ideas, use cases, solutions or experience reports related to **practical applications of Linked Data and Semantic Web technologies at any stage of construction lifecycle** (design, construction, operations, facility management, renovation). Both success stories and discussions of obstacles in the way of adoption of presented technologies are welcome. The workshop topics include, but are not restricted to the following:

- Linking building data to other data such as product libraries, GIS data, construction data, or sensor data
- Applications in infrastructure projects and facilities
- Utilization of building-related ontologies such as ifcOWL, BOT, PROPS, OMG/FOG, or OPM
- Development of new ontologies or extension to existing ontologies
- Mapping and alignment of ontologies
- Using linking to enable interoperation between existing operational systems
- Enriching systems with new data linked from external sources
- Making data accessible by publishing it on the Web
- Implementing services based on Linked Data and Semantic Web technologies
- Methods, practices and problems to establish links and maintain linksets
- Semantic query systems and approaches
- Reasoning, rule systems, machine learning
- Graph analytics and semantic data lakes
- Visualization framework
- Security and access control concerns

This year's LDAC will also feature a **Summer School (17-19 June)**, in which the fundamentals of linked data and semantic web technologies are taught in the context of the built environment. This includes exercises and a coding challenge, as well as lectures by experts in (semantic) web technologies for architecture, engineering and construction.

This summer school is limited to **40 people max** (first come, first serve). Registration before **16 April**!

SUMMER SCHOOL

This year's LDAC will be directly preceded by a summer school that focuses entirely on the use of linked data and semantic web technologies for the built environment. In this summer school, experts and researchers in the use of these technologies for the AEC industry will share their knowledge and expertise to a **limited audience of 40 registrants** (first come, first serve).

Registration costs **300EUR** (includes lectures, supervision, lunch, and coffee) and closes on **16 April 2019**. The summer school targets **starting PhD students and starting industry professionals within the AEC industry**. Coding experience is highly recommended.

Lectures

A full program with high quality lectures is provided by 8 lecturers with hands-on knowledge and experience in linked data and semantic web technologies for the built environment. These lecturers are also available for questions and supervision during the duration of the summer school.

Hands-on exercises

All lectures come with hands-on exercises of various kinds and topics, so that you are ready to continue coding with linked data in the built environment after the end of the summer school.

Coding challenge

A coding challenge is put up, to which groups of four can participate in competition. All groups present their work on Wednesday 19 June, the first day of the LDAC2019 workshop.

IMPORTANT DATES

Paper submission: March 3, 2019
Industry case submission deadline: March 10, 2019

Notification of acceptance for paper submissions: **March 30, 2019**
Notification of acceptance for industry cases: **April 8, 2019**

Summer school registration deadline: **April 16, 2019**
Workshop registration deadline: **May 28, 2019**

LDAC Summer School + Workshop: **June 17-21, 2019**

SUBMISSION

The paper review process will be single-blind (no need to anonymize the papers). Every submission will be reviewed by at least two independent referees. If accepted, the paper must be presented at the workshop by one of the authors.

Submit: https://easychair.org/conferences/?conf=ldac2019

All submissions need to be formatted according to the style of the Springer Publications format for Lecture Notes in Computer Science (LNCS). Papers must have at least 8 and at most 14 pages.

Accepted papers are intended to be published in online workshop proceedings (e.g., CEUR). Note that this publication depends on the number and quality of submissions. Reviews will be openly published only for accepted papers after the review process.

PROGRAMME

The LDAC 2019 workshop itself will follow its usual set up and program. Namely, the workshop will host again a high number of plenary sessions, and the well-known technical track and industry case track will be organized in sequence. This workshop part takes place from 19 to 21 June.

This year, the LDAC 2019 workshop is preceded by a Summer School focusing on linked data and semantic web technologies in the context of the built environment. This summer school will include several lecturers by proficient developers and experts in the field. This summer school takes place before the actual LDAC workshop, from 17 to 19 June.

Monday 17 June - Summer School
    09:00 - 10:00: opening and outline of the summer school
    10:00 - 12:00: linked data and semantic web technologies: the basics
    12:00 - 13:00: lunch
    13:00 - 15:00: ontology development
    16:00 - 18:00: Linked Building Data: tools and examples

Tuesday 18 June - Summer School
    09:00 - 10:00: recap of day 1
    10:00 - 12:00: linking to other data: geospatial, product, infrastructure, design requirements
    12:00 - 13:00: lunch
    13:00 - 15:00: handling 3D geometry and sensor data
    16:00 - 18:00: coding with linked data

Wednesday 19 June - Workshop

    09:00 - 09:30: LDAC2019 workshop registration and opening
    09:30 - 10:30: keynote
    11:00 - 12:30: plenary session
    12:30 - 14:00: lunch
    14:00 - 17:00: technical session
    18:00 - 19:00: presentation of summer school coding challenge results
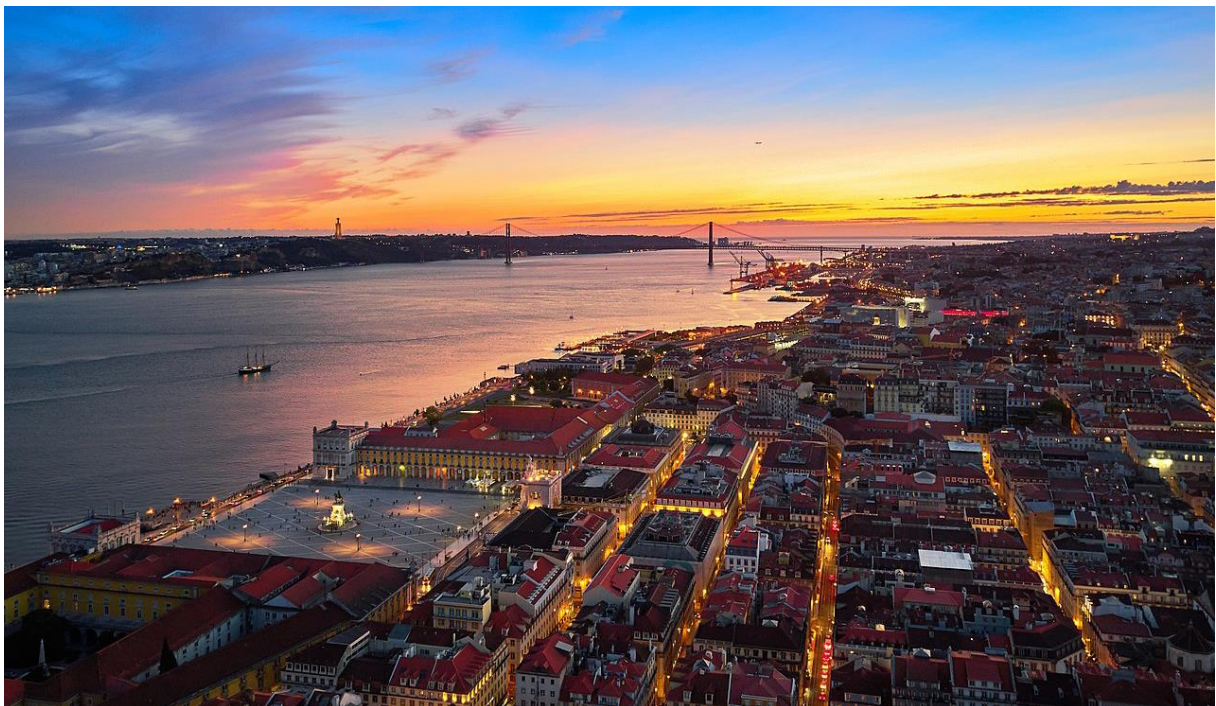
Thursday 20 June - Workshop

    09:30 - 10:30: keynote
    11:00 - 12:30: plenary session
    12:30 - 14:00: lunch
    14:00 - 17:00: industry case session

Friday 21 June - Workshop

    09:30 - 12:00: presentation of summer school coding challenge results
    12:00 - 14:30: lunch and closing meetings

VENUE

The event will be held at the **Beta-i Hub**, at Av. Duque de Loulé – 12, 1050-007 Lisbon, Portugal. You can find its location via http://beta-i.com/hub/#contacts. The nearest subway station is Picoas (yellow line), between Marquês de Pombal and Saldanha. Please check the Metro website for further information: https://www.metrolisboa.pt/en/travel/diagrams-and-maps/.

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If you're interested in supporting this event, please contact us at ruideklerk@fa.ulisboa.pt