

Special Session

EMPOWERING INNOVATION AND SCIENTIFIC DISCOVERIES

August 16th, 2018

Within the
IV Workshop on Data Science
August 15-17, 2018

<http://wds.poli.usp.br/wds4/>

The traditional Workshop on Data Science (WDS) at the Polytechnic School of the University of São Paulo (USP) aims to provide the dissemination of knowledge about management, analysis and visualization in data science, and the support for Brazilian's Open Data Problems Solving. The fourth edition of the WDS focus on Data Governance and front-end applications. Professor Pedro Luiz Pizzigatti Corrêa from the Department of Computer and Digital Systems of USP leads this Workshop.

In this year, the IV WDS has a special session dedicated to Chemical Data Intensive Scientific Discoveries and Innovation.

In the early days, the scientific research was based on the description of natural phenomena as experimental science. Then, the science evolved as theoretical explanation allied with experimental validation. Further, the computational science emerged as a useful tool showing insights through complex systems simulations.



Venue:
Auditorium of the Mechanical Engineering Dept.
Polytechnic School USP
Cidade Universitária, São Paulo, SP
(georeference 23°33'14.7"S 46°43'46.8"W)

Nowadays, all information from experimental science, theoretical explanations and computational results, continuously generated from a myriad of sources, has been captured and archived in several repositories and are ready to support data federation and collaboration.

So, we proudly present in this one day Special Session how we can use the data intensive sets for analysis, data mining, data visualization and exploration for Empowering Innovation and Scientific Discoveries in Chemical Science and Chemical Engineering.

This is a special session of the IV WDS organized as a joint effort of several Institutions:

Gustavo Matheus de Almeida UFMG

Denise Ferreira CAS, a division of the American Chemical Society

Song Won Park USP

Pedro Luiz Pizzigatti Corrêa USP (Chair of the IV WDS 2018, 15-17 August held at the Department of Computer and Digital Systems of the Polytechnic School of USP)

Institutional support of The Special Session on
Empowering Innovation and Scientific Discoveries:



PROGRAMME

Special Session

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Within the
**IV Workshop on Data Science
(WDS2018)**
August 15-17, 2018



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JUST JOIN US AND YOU'LL BE ENTERED TO WIN A TABLET

August, 16, 2018

- 8:00-8:45 **Registration and Opening session**
Vinicius Akio Orlandi Ito, Denise Ferreira, Gustavo Matheus de Almeida
- 9:00-9:45 **How Business and Industrial R&D-I are Enhanced by Search Engines (video conference)**
Matt Toussant – CAS Vice President, Product & Content Operations
- 9:45-10:30 **How Companies Benefit from Information in the Digital Era to Leverage Innovations**
Regina Cantele – MBAs Coordinator in Data Engineering and in Digital Marketing / FIAP
- 10:30-10:45 **Coffee Break**
- 10:45-11:30 **How to Extract Technological Information from the Big Data**
Lucas Mendonça Lopes – BRASKEM (GECIT)
- 11:30-12:15 **Big Data Analytics in Chemical Data Intensive Scientific Research**
Chris Gessner – CAS Data Engineer
- 12:15-13:30 **Lunch**
- 13:30-14:15 **Visual Analytics**
Chris Gessner – CAS Data Engineer
- 14:15-14:45 **Information: The Most Powerful Tool for Innovation**
Denise Ferreira – CAS Brazil
- 14:45-15:00 **Coffee Break**
- 15:00-15:30 **Engineering Challenges on Data Analysis and Visual Analytics**
Gustavo Matheus de Almeida – UFMG
- 15:30-15:45 **Scientific Data Discovery using Ontology: Survey and Future Research**
Song Won Park – USP
- 15:45-16:00 **Closing session**
Vinicius Akio Orlandi Ito, Denise Ferreira, Gustavo Matheus de Almeida

