

Data Science Workshop

This first online data science workshop of EUT+ Data Science Institute

ATTENTION: Times are Central European Times – CET

ORGANISING COMMITTEE

- Dr. Janina Fengel and Prof. Andreas Weinmann (h_da, Germany)
- Prof. Maria-Dolores Cano (UPCT, Spain)
- Prof. Sotirios Chatzis (CUT, Cyprus)
- Prof. Sergiu Nedevschi (UTCN, Romania)
- Prof. Igors Tipans (RTU, Latvia)
- Prof. Hichem Snoussi, Prof. Frédéric Bertrand and Dr. Myriam Maumy (UTT, France)
- Prof. Desislava Ivanova (TUS, Bulgaria)
- Prof. Pramod Pathak (TUD, Ireland)

Program

Date: January 18th 2022

Place: Online via Zoom : [Click here to join the workshop](#)

<https://zoom.us/j/95936539304?pwd=VGp1WG5hVUI0NkxFL2dVMIpo-cEdVUT09>

09.00 - 9.15	Session 0: Welcome & introduction
09.00 - 9.05	Welcome by Prof. Hichem Snoussi and Program Committee members
09.05-9.15	Opening talk by Prof. Farouk Yalaoui, Vice President Research of UTT: Eut+ Research Institutes – Challenges and opportunities
09.15 – 10:15	Session 1: Topic chaired by Prof. Andreas Weinmann (h_da, Germany) and Prof. Igors Tipans (RTU, Latvia)
09:15-09:20	Information Science and Language Technology at h_da Melanie Siegel, h_da
09:20-09:25	Data Driven Software Engineering Andreas S. Andreou and Andreas Christoforou, CUT
09:25-09:30	Application of predictive modelling in varied sectors of the economy Ilze Birzniece, RTU

09:30-09:35	Data Mining of Astrophysical Catalogues at Technological University Dublin Eugene Hickey, TUD
09:35-09:40	Big Biomedical Data Analytics and In Silico KDD in Support of Precision Medicine and Genetic Research Plamenka Borovska and Desislava Ivanova, TUS
09:40-09:45	The Optimization Axis of List3n Alice Yalaoui and Murat Afsar, UTT
09:45-09:50	Astrophysics research work based on machine learning at the UPCT Alberto Manjón-García, Anastasio Díaz-Sánchez & Antonio Pérez-Garrido, UPCT
09:50-09:55	About the Huge Potential of Fixed Point Iterative Methods in Data Science Vasile Berinde, TUCN
09:55-10:00	Visual Analytics for Corporate Foresight Kawa Nazemi, h_da
10:00-10:05	Exotic Models in Data Knowledge Discovery Michail Todorov, TUS
10:05-10:10	Wasserstein GAN for the Prediction of Process Units' Journeys Yoann Valero, UTT
10:10-10:15	Methods for Uncertainty Quantification in Computer Models David Crevillén García, UPCT
10.15-10.30	<i>Coffee Break</i>
10:30 – 12:00	Session 2: Topic chaired by Prof. Maria-Dolores Cano (UPCT, Spain), Prof. Frédéric Bertrand (UTT, France) and Dr. Myriam Maumy (UTT, France)
10.30-10.35	AI-coordinated beamforming on an FPGA-based SDR platform Cristian Codau, Rares-Calin Buta, Botond Sandor Kirei, Andra Pastrav, Raluca Simedroni, Paul Dolea, Tudor Palade, Emanuel Puschita, TUCN
10.35-10.40	Activities of the Work Group on Algorithms for Computer Vision and Imaging Thomas März, Andreas Weinmann, h_da
10.40-10.45	Data Mining and Financial Decision Making Zlatina Tzenova and Silvia Baeva, TUS
10.45-10.50	<i>The Silver Technologies at the heart of our health and well-being systems</i> Racha Soubra & Aly Chkeir, UTT
10.50-10.55	<i>Easing the generation of Quantum Programs: application to the Satisfiability problem</i> Diego Alonso, Pedro Sánchez, Francisco Sánchez-Rubio, UPCT
10.55-11.00	<i>Data-centric speech processing</i> Adriana Stan, TUCN
11.00-11.05	<i>Data Science activities at the Darmstadt Institute of Statistics and Operations Research</i> Sebastian Döhler, Horst Zisgen, h_da
11.05-11.10	<i>Design and Validation of a SpW-to-PCIe Converter for Intra-Spacecraft Communications</i> Rares-Calin Buta, Botond Sandor Kirei, Cristian Codau, Andra Pastrav, Calin Farcas, Raluca Simedroni, Paul Dolea, Tudor Palade, Emanuel Puschita, TUCN
11.10-11.15	Unsupervised Learning for anomaly detection in computer vision Marie Njaimé and Hichem Snoussi, UTT

11.15-11.20	<i>Theoretical analysis of a dynamic pricing problem with linear demand</i> Mourad Terzi, Yassine Ouazene, Alice Yalaoui, Farouk Yalaoui, UTT
11.20-11.25	<i>Data science for Smart Grids</i> Stefan Ungureanu, Andrei Czikar, Anca Miron, Sorin Pavel, Cosmin Darab, Horea Gheorghe Beleiu, TUCN
11.25-11.30	<i>Deep Learning models for a Cortical Neuroprosthesis for the Blind</i> Antonio-Manuel Lozano-Ortega, José-Manuel Ferrandez-Vicente, Javier Garrigós, José-Javier Martínez-Alvarez, Eduardo Fernández, UPCT
11.30-11.35	<i>ClusterTune : Tuning Metaheuristics Using Clustering for Scheduling Problems</i> M. Athmani T. Arbaoui F. Yalaoui, UTT
11.35-11.40	<i>Computing Behaviour of Finite Fuzzy Machines</i> Zl. Zahariev, K. Peeva, TUS
11.40-11.45	<i>Intelligent methods for solving complex optimization problems</i> Petrica C. Pop and Cosmin Sabo, TUCN
11.45-11.50	<i>Energy and bandwidth efficient circuits for machine learning algorithms</i> Ginés Doménech-Asensi, Juan Zapata-Pérez, Ramón Ruiz-Merino, José Á. Díaz-Madrid, UPCT
11.50-11.55	<i>Topological Data Analysis Methods to Classify Human Body Shapes</i> Philippe Meyer, Njaka Andriamandratomanana, Laila Baroukh and Jean Cazalis, UTT
11.55-12.00	<i>Knowledge Engineering Group (KEG)</i> Rodica Potolea, Mihaela Dinsoreanu, Camelia Lemnar, TUCN
12.00-12h30	<i>Questions and comments</i>
12.30-14.00	<i>Lunch Break</i>
14:00 – 15:00	Session 3: Topic chaired by Prof. Sotirios Chatzis (CUT, Cyprus) and Prof. Pramod Pathak (TUD, Ireland)
14.00-14.05	<i>Knowledge Discovery from Data Streams: Advanced Mathematics in Big Data Analytics</i> Mirko Tarulli and George Venkov, TUS
14.05-14.10	<i>Stochastic Local Winner-Takes-All Activations as a Nexus for Next-Gen Deep Learning</i> Konstantinos P. Panousis, CUT
14.10-14.15	<i>Data Science Related Research in Advanced Process Control Methods Group</i> Eva-H. Dulf, TUCN
14.15-14.20	<i>Seakeeping analysis of monohull ships at preliminary design using artificial neural networks</i> Romero-Tello Pablo, Gutierrez-Romero José-Enrique, Serván-Camas Borja, UPCT
14.20-14.25	<i>Medical Image Processing – Deep Learning in Application</i> Johannes Gregori, h_da
14.25-14.30	<i>Bayesian Networks for Acute Toxicity Modeling in the Case of Radiotherapy Treatment of Breast Cancer</i> Mélanie Piot, Frédéric Bertrand, Jean-Baptiste Clavier, Sébastien Guihard, Rémi Eugène, Philippe Meyer, Myriam Maumy-Bertrand, Christophe Mazzara, UTT
14.30-14.35	<i>Data Science in proteomics and proteomics networks</i> Ioan Radu Peter and Vlad-Cristian Miclea, TUCN
14.35-14.40	<i>Machine Learning and Deep Learning for Financial Modelling</i> Anna Rozeva, Pavel Tsankov, TUS

14.40-14.45	Towards the automatic diagnosis, virtual biopsy and modelling of some severe affections, based on medical images Delia Mitrea, Sergiu Nedevschi, Raluca Brehar, Tiberiu Marita, TUCN
14.45-14.50	Rule mining in connected objects and operational data Benoit Vuillemin, UTT
14.50-14.55	Training machine learning algorithms for damage detection in bridges Mihai Bud, Mihai Nedelcu, Ionut Moldovan, Lucian Radu, Eloi Figueiredo, TUCN
14.55-15.00	Agents that explain classifications Adrian Groza, Anca Marginean, Radu Razvan Slavescu, TUCN
15.00-15.15	<i>Coffee Break</i>
15:15 – 16:00	Session 4: Topic chaired by Prof. Sergiu Nedevschi (TUCN, Romania) and Prof. Desislava Ivanova (TUS, Bulgaria)
15.15-15.20	Data Science activities at the Darmstadt Institute of Statistics and Operations Research Florian Junge, h_da
15.20-15.25	Physics and Data Science: Some Applications Khristo Tarnev, TUS
15.25-15.30	<i>A distributed microservices architecture for incremental processing of events for Learning Analytics</i> <i>Daniel Pérez Berenguer, Mathieu Kessler, UPCT</i>
15.30-15.35	Evaluation of Blood Glucose Level Control in Type 1 Diabetic Patients Using Deep Reinforcement Learning Phuwadol Viroonluecha, Esteban Egea-Lopez, and Jose Santa, UPCT
15.35-15.40	Sensory-Based Perception for Autonomous Systems Sergiu Nedevschi, TUCN
15.40-15.45	Approach for evaluating the value of partial information in semi-online scheduling problems Hajar Nouinou, Taha Arbaoui, Alice Yalaoui, UTT
15.45-15.50	UC Labs Research Interests in EUt+ Data Science Institute Virgil Dobrota, Daniel Zinca, Tudor Blaga, Iustin Ivanciu, Robert Botez, Marian Iurian, Andrei Margin, TUCN
15.50-15.55	The Institute of Health and Technologies of Troyes: Data and more Farah Chehade, David Laplanche, UTT
16:00 – 16h30	Conclusions: Future of Data Science Institute & next steps