Programme

Optimization and Artificial Intelligence in Agriculture

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
—				**26**	**27**	**28**	**29**
09:00-11:00					Mini-Course 1	Mini Talk 2: Antonio	
11:00-11:30					*coffe break*	*coffe break*	
11:30-13:30					Mini-Course 1	Mini-Course 1	
14:00-15:30					*lunchtime*	*lunchtime*	
15:30-16:30					Mini Talk 1: Laureano	Mini-Course 1	Excursion Calafell Beach
16:30-17:00					*coffe break*	*coffe break*	
17:00-18:00					Mini Talk 1: Laureano		
18:00- ...							
20:30-22:00				Welcome Reception			
—	**30**	**1**	**2**	**3**	**4**		
09:00-11:00	Mini-Course 1	Mini-Course 2	Mini-Course 2	Mini-Course 2	Mini-Course 2		
11:00-11:30	*coffe break*	*coffe break*	*coffe break*	*coffe break*	*coffe break*		
11:30-13:30	Mini-Course 1	Mini-Course 2	Mini-Course 2	Mini-Course 2	Mini-Course 2		
14:00-15:30	*lunchtime*	*lunchtime*	*lunchtime*	*lunchtime*	*lunchtime*		
15:30-16:30	Mini Talk 3: Hector		Mini Talk 4: Jitka	Mini Talk 6: Victor	Mini Talk 7: Mario		
16:30-17:00			*coffe break*		*coffe break*		
17:00-18:00	*coffe break*	*Free Time: sports & swim*	Mini Talk 5: Emilio	*coffe break*	Mini Talk 7: Mario		
18:00- ...	Posters		Visit to La Seu Vella	Posters	*free time*		
20:30-22:00					Banquet		

Locations

- Welcome reception: Hotel Nastasi [https://maps.app.goo.gl/XegsW3mx4YPE41sJA]
- Excursion: Calafell beach [https://maps.app.goo.gl/ejKFKAPWseicUsxQA]
- Lunch Saturday: Punto Estrella [https://maps.app.goo.gl/PuLGfTnzR2JHpSPy6]
- Tuesday free time: Tennis Lleida [https://maps.app.goo.gl/ZaPBhrRUHmW4f2Ek9]
- Visit to La Seu: La Seu Vella [https://maps.app.goo.gl/KgEopEKxwkds87d88]

- Banquet + disco: Hotel Nastasi [https://maps.app.goo.gl/XegsW3mx4YPE41sJA]

Mini-courses

Mini-course 1: Machine Learning and Data Mining for Business Analytics by Filiz Ersöz

Course Objectives: The aim of this course is to use basic and widely applied methods for data modelling and machine learning, and to gain practice by applying machine learning applications to business problems in modelling real world data. Participants will gain the knowledge, skills and competence to apply, analyse and interpret correct machine learning algorithms in business problems with any software tool.

Course Content: This course covers methods and applications of statistical and machine learning algorithms for prediction, classification, clustering, association rules, visualisation, dimension reduction and rule mining. Participants will be introduced to methodologies, technologies and algorithms for machine learning. Topics include supervised (Classification and Regression Task) and unsupervised learning (clustering, association rules and dimensionality reduction). All course materials prepared by the instructor will be available. ***KNIME*** (The Konstanz Information Miner), ***WEKA, R*** programme, ***IBM SPSS Modeler*** and ***Python*** programmes are used in course applications.

Mini-course 2: Convolutional neural networks (CNN) by Dan B. Jensen

Course Objectives: The aim of this course is to introduce the use of convolutional neural networks (CNN) showing some real data based exemples in livestock production.

Course Content: This course covers methods and applications of CNN in precision livestock farming. Participants will be introduced to methodologies, technologies and algorithms for CNN. Sessions will be devoted to introduce CNN, Computer exercises about the use of CNN for classification of equine pain face and for pig counting and monitoring. All course materials prepared by the instructor will be available. ***R, R-Studio*** programme and ***Keras and Tensorflow for R*** are used in course applications.