Predictive Maintenance

28.Aug - 30.Aug 2019

Cod. Z20-19

Mod.:
Face-to-face

Edition
2019

Activity type
Summer course

Date
28.Aug - 30.Aug 2019

Location
Miramar Palace

Languages
English

Academic Validity
30 hours

Organising Committee

Description

This programme introduces maintenance strategies and maintenance planning, including predictive maintenance strategy. The programme will cover practicing condition monitoring techniques, including Vibration Analysis, Acoustic Emission Monitoring, Oil Analysis, and their industrial applications. All attendees will be encouraged to join the condition monitoring Project Competition.

Objectives

Introduction to maintenance and maintenance planning.

Maintenance strategies and predictive maintenance.

Condition monitoring techniques; Vibration Analysis, Acoustic Emission Monitoring, Oil Analysis.

Industrial applications on machinery vibration analysis.

Maintenance planning.

Development of intelligent condition Monitoring Systems using Artificial Intelligence.

Course specific contributors

Program

28-08-2019

09:00 - 09:15	Registration
09:15 - 10:30	"Machine Learning" **Basilio Sierra Araujo** | UPV/EHU - Profesor
10:30 - 10:45	Break
10:45 - 12:00	"Pair-wise classification" **Iñigo Mendialdua Beitia** | UPV/EHU - Profesor

29-08-2019

09:15 - 10:30	"Data Analysis" **Itziar Irigoien Garbizu** | UPV/EHU - Profesora
10:30 - 10:45	Break
10:45 - 12:15	"Computer Vision Approaches" **Naiara Aginako Bengoa** | UPV/EHU - Profesor

30-08-2019

09:15 - 11:00	"Lubrication" **Estibaliz Aranzabe** | IK4-TEKNIKER - Investigadora Senior
11:00 - 11:15	Break
11:15 - 13:00	"Tribology" **Amaya Igartua Aranzabel** | IK4-TEKNIKER - Investigadora Senior
13:30 - 14:00	Synthesis

Directed by

Basilio Sierra Araujo

Facultad de Informática. UPV/EHU, Ciencias de la Computación e Inteligencia Artificial

---

Full Professor in the ComputerSciences and Artificial Intelligence Department at theUniversity of the Basque Country. He received his B.Sc.in Computer Sciences in 1990, M.Sc. in ComputerScience and Architecture in 1992 and Ph.D. in Compu-ter Sciences in 2000 at the University of the BasqueCountry. He is codirector of the Robotics and Autono-mous Systems Group in Donostia-San Sebastian. Prof.Sierra is presently a researcher in thefields of Roboticsand Machine Learning, and he is working on the use ofdifferent paradigms to improve behaviours.

Teachers

Naiara Aginako Bengoa

UPV/EHU

Naiara Aginako Bengoa got a degree in Telecommunications Engineering from the University of the Basque Country in 2005. From 2003 until 2005, she collaborated the Signal Processing and Communication Group of the Electronics and Telecommunications department. She developed and managed research projects in Vicomtech from 2005 until 2015, in the Digital Media Department. Since 2015 she has been teaching in the Polytechnic School of Donostia and the Faculty of Informatics. She received her PhD in Image Analysis and Content-Based Retrieval of images and video. Her work as a researcher counts on a number of publications and on two patents.

Estibaliz Aranzabe

Tekniker

Amaya Igartua Aranzabel

Tekniker, Coordinación de iniciativas de materiales

Dr. Amaya Igartua, is actually the Coordinator of European Actions in Materials in the Research Institution IK4-TEKNIKER and co-secretary of the European Platform of Materials EUMAT. She has been during the last 10 years, the Head of the Tribology Unit in IK4-TEKNIKER a team of 22 researchers with 8 PHD. She has been participating in 50 EU Projects coordinating 3 of them, and she is author of >200 publications in Congress, Papers and Book chapters. She has been active in COST 516 Tribology, COST 532 Tribotechnology of engines and transmissions, COST 533 Biotribology, in VTI (Virtual Tribology Institute), in ENIWEP (Eureka action for Wear prevention), in E-Surf (Eureka Umbrella for functional Surfaces). Now she is active in European Materials Modelling Council (EMMC), in European Materials Characterization Council (EMCC), in JTI Biomass for Industry, in KMM (European Virtual Institute on

Knowledge-based Multifunctional Materials), X-Tribology Competence Center, Network of plastics.

Itziar Irigoien Garbizu

UPV/EHU

She received her PhD in Computer Sciences in 2008 at the University of the Basque Country (UPV/EHU). She is currently an associate professor in the CSAI Department at the University of the Basque Country since 2011. She is member of the research group RSAIT which works in in the area of mobile robotics, where statistical and machine learning techniques are applied in order to increase the degree of autonomy of our robots. Her research interests also include the development of new statistical methods to solve bioinformatics and biomedical questions, particularly focusing on distances based data analysis techniques. The publications include journals indexed by the Journal Citation Report (JCR). She participates regularly in relevant conferences in the field.

Iñigo Mendialdua Beitia

UPV/EHU

Received the B.Sc. Degree in Com-puter Science from the University of the Basque Coun-try, Spain, in 2007 and is pursuing the Ph.D. degreefrom the Department of Computer Science and Artifi-cial Intelligence, University of the Basque Country. Hiscurrent research interests include distance-based algo-rithms, multi-classifiers and decomposition strategies.

Registration fees

REGISTRATION	UNTIL 31-05-2019	UNTIL 25-08-2019	UNTIL 28-08-2019
GENERAL	81,00 EUR	-	-
REDUCED FEE	48,00 EUR	-	-
REGISTRATION EXEMPTIONS	20,00 EUR	-	20,00 EUR
INVITED SPEAKER	-	0 EUR	-
GENERAL	-	-	95,00 EUR
Students of University of UCLAN	-	-	500,26 EUR

Place

Miramar Palace

Pº de Miraconcha nº 48. Donostia / San Sebastián

Gipuzkoa