



# Predictive Maintenance

**28.Août - 30.Août 2019**

**Cod. Z20-19**

**Modalité:**

En personne

**Édition**

2019

**Type d'activité**

Cours d'été

**Date**

28.Août - 30.Août 2019

**Location**

Miramar Palace

**Langues**

Anglais

**Reconnaissance officielle par l'État**

30 heures

**Comité d'organisation**



Fundación  
BBVA



## 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.

## Objectifs

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.

## Collaborateurs spécifiques au cours



# Programme

## 28 08 2019

09:00 - 09:15 Registration

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09:15 - 10:30 “Machine Learning”

**Basilio Sierra Araujo** | UPV/EHU - Profesor

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10:30 - 10:45 Pause

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10:45 - 12:00 “Pair-wise classification”

**Iñigo Mendialdua Beitia** | UPV/EHU - Profesor

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## 29 08 2019

09:15 - 10:30 “Data Analysis”

**Itziar Irigoien Garbizu** | UPV/EHU - Profesora

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10:30 - 10:45 Pause

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10:45 - 12:15 “Computer Vision Approaches”

**Naiara Aginako Bengoa** | UPV/EHU - Profesor

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## 30 08 2019

09:15 - 11:00 “Lubrication”

**Estibaliz Aranzabe** | IK4-TEKNIKER - Investigadora Senior

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11:00 - 11:15 Pause

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11:15 - 13:00 “Tribology”

**Amaya Igartua Aranzabel** | IK4-TEKNIKER - Investigadora Senior

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13:30 - 14:00 Synthèse

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## Directed by



### **Basilio Sierra Araujo**

Facultad de Informática. UPV/EHU

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Full Professor in the Computer Sciences and Artificial Intelligence Department at the University of the Basque Country. He received his B.Sc. in Computer Sciences in 1990, M.Sc. in Computer Science and Architecture in 1992 and Ph.D. in Computer Sciences in 2000 at the University of the Basque Country. He is codirector of the Robotics and Autonomous Systems Group in Donostia-San Sebastian. Prof. Sierra is presently a researcher in the fields of Robotics and Machine Learning, and he is working on the use of different paradigms to improve behaviours.

## Profesores



**Naiara Aginako Bengoa**

UPV/EHU

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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

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**Amaya Igartua Aranzabel**

Tekniker

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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



**Itziar Irigoien Garbizu**

UPV/EHU

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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

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Received the B.Sc. Degree in Computer Science from the University of the Basque Country, Spain, in 2007 and is pursuing the Ph.D. degree from the Department of Computer Science and Artificial Intelligence, University of the Basque Country. His current research interests include distance-based algorithms, multi-classifiers and decomposition strategies.

## Tarifs inscription

MATRÍCULA	JUSQU'AU 31-05-2019	JUSQU'AU 25-08-2019	JUSQU'AU 28-08-2019
<a href="#">GENERAL</a>	81,00 EUR	-	-
<a href="#">MATRÍCULA REDUCIDA</a>	48,00 EUR	-	-
<a href="#">EXENCIÓN DE MATRÍCULA</a>	20,00 EUR	-	20,00 EUR
<a href="#">PONENTE INVITADO</a>	-	0 EUR	-
<a href="#">GENERAL</a>	-	-	95,00 EUR
<a href="#">Estudiantes Universidad de UCLAN</a>	-	-	500,26 EUR