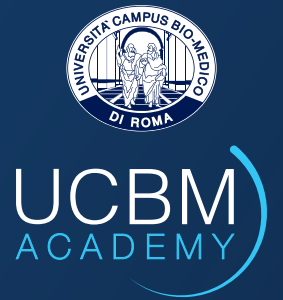


# BOOTCAMP 2025

## IoT & AI FOR BLACK SWAN EVENTS

Anticipating and managing the unpredictable  
One Health | Medicine | Agritech | Climate Action



**7<sup>TH</sup> Edition**

**25 AUGUST - 12 SEPTEMBER 2025**

**Jesus College Cambridge (UK)**

[BOOTCAMP@UNICAMPUS.IT](mailto:BOOTCAMP@UNICAMPUS.IT)

[HTTPS://UCBMACADEMY.UNICAMPUS.IT/BOOTCAMP-2025/](https://ucbmacademy.unicampus.it/bootcamp-2025/)

# SCHEDULE

# Bootcamp 2025 | IoT & AI for BLACK SWAN EVENTS - 7<sup>th</sup> Edition | 25 August\* - 12 September 2025

\* Participants are expected to attend the Welcome Drinks on 24<sup>th</sup> August at 18:00 - Pump Court

WEEK 1								
Time		Monday - 25 August Jesus College - Sibilla Room	Tuesday - 26 August UoC Computer Science - William Gates Building	Wednesday - 27 August UoC Computer Science - William Gates Building	Thursday - 28 August UoC Computer Science - William Gates Building	Friday - 29 August Anglia Ruskin University - Lord Ashcroft Building	Saturday - 30 August Anglia Ruskin University - Lord Ashcroft Building	
09:00	11:00	<b>OPENING SESSION</b> 09:00am Opening 09:30am Use Cases Presentations 	<b>LECTURE AI 1 - Prof. Liò</b> Intro to Machine Learning, Deep Learning, CNNs, Anomaly Detection 	<b>LECTURE AI 2 - Prof. Liò</b> Graphs, Hypergraphs, Graph Neural ODEs 	<b>LECTURE AI 3 - Prof. Liò</b> From Transformers to Large Language Models with Agentic AI 	<b>WORKSHOP</b> User-centric Design and Innovation 	<b>WORKSHOP</b> Strategic Technology and Innovation Management (Part 1) 	
11:00	11:30	Break						
11:30	13:00	<b>Opening Lecture</b> Black Swans and One Health Framework Prof. Leandro Pecchia 	<b>LECTURE AI 1 - Prof. Liò</b> 	<b>LECTURE AI 2 - Prof. Liò</b> 	<b>LECTURE AI 3 - Prof. Liò</b> 	<b>WORKSHOP</b> 	<b>WORKSHOP</b> 	
13:00	14:30	Lunch						
14:30	17:00	<b>TRANSFERABLE SKILLS TRAINING</b> Project Management 	<b>AI LAB 1</b> AI Fundamentals: Classification and Clustering Techniques with Practical Tools and Coding 	<b>AI LAB 2</b> Prompt engineering: Enhancing Problem Solving through powerful tools 	<b>AI LAB 3</b> Large Language Models and Graph Structures: Advances and Applications 	<b>TRANSFERABLE SKILLS TRAINING</b> Effective Teams 	<b>Teamwork</b> 	
17:00	17:30	Break						
17:30	19:00	<b>Teamwork</b> 	<b>Teamwork</b> 	<b>Teamwork</b> 	<b>INDUSTRY PARTNER TUTORS</b> 	<b>Teamwork</b> 	<b>Teamwork</b> 	
WEEK 2								
Time		Monday - 1 September Anglia Ruskin University - Lord Ashcroft Building	Tuesday - 2 September UoC Dept of Engineering - Baker Building	Wednesday - 3 September UoC Dept of Engineering - Baker Building	Thursday - 4 September UoC Dept of Engineering - Baker Building	Friday - 5 September Anglia Ruskin University - Lord Ashcroft Building	Saturday - 6 September Anglia Ruskin University - Lord Ashcroft Building	
09:00	11:00	<b>LECTURE IoT1   Prof. Kabla</b> Introduction to IoT 	<b>LECTURE IoT2 - Prof. Kabla</b> Programming the microcontroller; Memory; Interrupt 	<b>LECTURE IoT3 - Prof. Kabla</b> Collecting data from sensors; I2C BUS; temperature sensor; Other sensors for industrial projects 	<b>LECTURE IoT4 - Prof. Kabla</b> Actuators; Heat generator: open and closed lopps to control heat production; Project of a controller; Intro-duction to control theory for systems with feedback. 	<b>TRANSFERABLE SKILLS TRAINING</b> Self-awareness and Values 	<b>AI FOR RARE DESEASES: STATE OF THE ART AND CASE STUDIES</b> Lectio Magistralis Prof. Pecchia Prof. Limongelli 	
11:00	11:30	Break						
11:30	13:00	<b>LECTURE IoT1   Prof. Kabla</b> Environment Setup and Configuration 	<b>LECTURE IoT2 - Prof. Kabla</b> 	<b>LECTURE IoT3 - Prof. Kabla</b> 	<b>LECTURE IoT-AI on the Edge:</b> STMicroelectronics inference tools and Edge Impulse platform 	<b>TRANSFERABLE SKILLS TRAINING</b> 		
13:00	14:30	Lunch						
14:30	17:00	<b>WORKSHOP</b> The Journey of an Idea: from problem framing to solution development 	<b>IoT LAB</b> 	<b>IoT LAB</b> 	<b>IoT LAB</b> 	<b>RARE DISEASE MINDSET</b> Lectio Magistralis Prof. Limongelli 	<b>Teamwork</b> 	
17:00	17:30	Break						
17:30	19:00	<b>Teamwork</b> 	<b>Teamwork</b> 	<b>Teamwork</b> 	<b>INDUSTRY PARTNER TUTORS</b> 	<b>Teamwork</b> 		
WEEK 3								
Time		Monday - 8 September Anglia Ruskin University - Lord Ashcroft Building	Tuesday - 9 September Anglia Ruskin University - Lord Ashcroft Building	Wednesday - 10 September Anglia Ruskin University - Lord Ashcroft Building	Thursday - 11 September Jesus College - Sibilla Room	Friday - 12 September Jesus College - Elena Room		
09:00	11:00	<b>WORKSHOP</b> Strategic Technology and Innovation Management (Part 2) 	<b>TRANSFERABLE SKILLS TRAINING</b> Presentation Skills 	<b>TRANSFERABLE SKILLS TRAINING</b> Presentation rehearsals and feedback 	<b>Teamwork</b> 	<b>Teamwork</b>		
11:00	11:30	Break						
11:30	13:00	<b>WORKSHOP</b> 	<b>TRANSFERABLE SKILLS TRAINING</b> Presentation Skills 	<b>TRANSFERABLE SKILLS TRAINING</b> Presentation rehearsals and feedback 	<b>Teamwork</b> 	<b>UCBM ALUMNI DAY</b> Sharing Innovation: Inspiring Futures 		
13:00	14:30	Lunch						
14:30	17:00	<b>Teamwork</b> 	<b>Teamwork</b> 	<b>Teamwork</b> 	<b>LECTURE</b> Human-centric augmentation: AI-Robotics interplay 	<b>PITCH DAY &amp; JURY PANNEL</b> 		
17:00	17:30	Break						
17:30	19:00	<b>Consulting Session with Subject Expert</b> 	<b>Consulting Session with Subject Expert</b> 	<b>Consulting Session with Subject Expert</b> 	<b>INDUSTRY PARTNER TUTORS</b> 			
	19:00							<b>GALA DINNER &amp; AWARD CEREMONY</b> at Newnham College