

## **Call for Applications (40 positions)**

### **The CHT Summer School 2017 on Big data, neuroscience and law**

**University of Pavia, Italy – September 11-15, 2017**

**Topic of the school: Neuroscience, Big Data and Law**

The School is organized by the Centre for Health Technologies along with the ECLT Interdepartmental Research Center of the University of Pavia.

#### **Directors:**

Prof Riccardo Bellazzi - Big data and health IT (CHT, UniPv),

Prof Gabriella Bottini - Neuroscience (CFNNS, UniPv),

Prof. Amedeo Santosuosso - Law and technologies (ECLT, UniPv)

#### **Scientific committee:**

Prof Riccardo Bellazzi (CHT, UniPv), Prof Gabriella Bottini (CFNNS, UniPv), Prof. Amedeo Santosuosso (ECLT, UniPv), Dr. Barbara Bottalico (ECLT, UniPv), Dr. Lucia Sacchi (CHT, UniPv)

#### **Scope and Objective**

Research developments on the human brain are progressing incredibly fast, and their applications on the field of artificial intelligence and robotics, or their use for forensic purposes in civil and criminal trials, have been exponential. Technology is having a relevant impact not only on people's habits but also on the organization of work, industries and institutions.

Lawyers and jurists need to face such novelties, which are multidisciplinary by definition: for instance, evaluating scientific elements in a case they are working on, or choosing the best scientific experts to consult, or dealing with regulatory aspects of new technologies.

In parallel, science and technology experts often have to face the gap between their work and its legal framework. Philosophers and ethicists are also involved in the debate because of the potential ethical and social impact of neuroscientific findings and new technological applications, especially under the European norms regulating Responsible Research and Innovation (RRI).

A better interdisciplinary interaction between scholars in law and scholars in neuroscience, robotics and artificial intelligence, philosophy and ethics is a mandatory for people who want to have better job opportunities and research developments.

### **The target of the school**

The Summer School on Big data, Neuroscience and Law is open to scientists and non scientists. Basic scientific information is provided on Neuroscience and Big Data for non scientists while basic law concepts are discussed for non-lawyers. The core of the activity is devoted to the in-depth exploration of the overlapping areas between law, ethics, neuroscience and new technologies in an integrative perspective.

The aim of the school is to provide accurate information about the increasingly advanced neuroscientific findings and Big Data techniques, and their impact on each other and on different legal systems. The interaction of the three main topics and the debate about the role of science in shaping ethics and law has been influenced by their recent advancements. Therefore, special focus is given to how science and technology challenge law and its ability to evolve.

### **Learning Objectives**

1. Big data. Students will learn the main concepts underlying big data architectures and technologies and

some practical aspects of big data management

2. Neuroscience. The students will learn about neuroscience, the variety and volumes of data that have to be jointly managed to achieve its goals, and some relevant methodologies currently in use to deal with such task.

3. Law. Students will learn about the most recent application of big data in the field of law and their theoretical and practical implications. They will learn about the interplay of Ethics and Law with big data and neuroscience.

The results will be monitored throughout the course thanks to the afternoon sessions, and they will be evaluated on the one hand with the presentation of the groups' assignments and on the other hand with the questionnaires delivered at the hand of the course about its quality and usefulness.

Finally, all course material will be made available on the CHT web site for dissemination.

### **Who can apply**

The course is designed for graduate (master-degree) students, PhD students and early-stage researchers enrolled in the faculties of Law, Philosophy, Neuroscience, Medicine, Psychology, Computer Science, Biomedical Engineering and social-political sciences, and correspondent professionals in an early stage of their careers. Good English language fluency (at least B2 level is required).

### **Working language**

English

### **Dates and place**

Where: University of Pavia - Italy,

When: from 11 to 15 September 2017 (5 days)

Attending the 80% of classes is mandatory.

### **Registration fee**

The registration fee is € 200,00 and includes the course materials, coffee breaks and lunches.

The International office the University of Pavia will provide information about housing solutions in Pavia.

### **Scholarships**

10 scholarships covering the registration fee are available for participants from UniPV

10 scholarships covering the registration and accommodation for five nights in one of UniPV campus structures are available for participants external to UniPV.

### **Certificate of attendance, University and continuing education Credits**

At the end of the Summer School, students will be awarded with a Certificate of attendance.

The course provides 3 CFU for students of the PhD Program in Bioengineering and Bioinformatics at the University of Pavia

Credits for Continuing Education have been requested to Pavia Order of Engineers.

### **Selection criteria**

The assessment for admission to the school and for scholarship eligibility will be made on the basis of the candidates' qualifications and CV, fluency in English, academic records, and motivation.

Fluency will be evaluated during a Skype interview with a member of the selection committee.

The selection committee is composed by the scientific committee of the school. (Prof. Amedeo Santosuosso, Prof. Riccardo Bellazzi, prof. Gabriella Bottini, Dr. Barbara Bottalico, Dr. Lucia Sacchi).

### **How to apply**

The submission of applications opens on June 26<sup>th</sup> 2017. The deadline for submission is **July, 15<sup>th</sup> 2017**.



The application form is available online. A fillable PDF is available at the address <http://cht.unipv.it/index.php/events/big-data-school-2017-1-en>, which should be sent, together with a CV in EU format and a short application letter describing your interest in the topic of the school and the possible impact of the school on your career/job to: [cht@unipv.it](mailto:cht@unipv.it)

All the documents must be submitted in English.

*The deadline is July 15, 2017. Answers will be sent by July 25, 2017.*