



Doctoral Course

**“The role of emerging ICT technologies for mental health and well-being”**

Prof. Vladimir Carli

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**Short Abstract:** The course will provide foundational knowledge of key mental health concepts, including risk and protective factors. It will also explore the potential risks and benefits of emerging technologies for mental health and well-being, particularly among young people.

Additionally, the course will examine primary psychopathological conditions, such as mood and anxiety disorders, and suicidality, and provide examples of the application of digital technologies in the understanding, diagnosis, monitoring, and treatment of mental health disorders.

Finally, through discussions and practical exercises, the course will explore opportunities and challenges that can guide the design of digital and bioengineered mental health tools.

**Course Contents in brief:**

- The fundamental concepts in psychiatry and mental health.
- Bioengineering contribution to the diagnosis, monitoring, and treatment of psychiatric disorders, as well as the promotion of mental well-being.
- Analysis of the clinical and translational impact of bioengineering innovations in mental health care.
- Illustration and discussion about the potential harmful effects of technology on mental health

**Total # of hours of lecture:** 20

**CV of the Teacher**

Prof. Vladimir Carli currently serves as Head of the National Centre for Suicide Research and Prevention of Mental Ill-Health (NASP) at the Karolinska Institutet in Stockholm, where he is also Associate Professor of Psychiatry. He is Director of the WHO Collaborating Centre for Research,

Training and Methods Development in Suicide Prevention, Board Member and Treasurer of the International Academy for Suicide Research (IASR), and Chair of the Suicidology Section of the World Psychiatric Association (WPA).

Prof. Carli has extensive experience in suicide prevention and mental health research, having held progressively responsible positions at NASP for more than a decade, including Deputy Head (2020–2023). Previously, he conducted postdoctoral research in Sweden and Italy, Department of Health Sciences of the University of Molise, focusing on the psychopathological and biological correlates of suicidal behavior and on suicide monitoring in Europe. Alongside his academic career, he has developed solid clinical expertise as a psychiatrist in hospital settings and as an expert consultant for the Italian Ministry of Justice.

Prof. Carli received a PhD in Advanced Methodologies in Psychotherapy, at the Catholic University of Sacred Heart, Rome, officially recognized as equivalent to Swedish doctoral education, and a specialization in Psychiatry at the same University, both awarded with highest honors. He has also completed advanced training in psychodynamic psychotherapy, suicidology, and psycho-oncology. His doctoral and specialization theses addressed, respectively, the biological correlates of psychotherapy and the genetic and clinical determinants of treatment response in mood disorders. He is author of more than 200 publications (>12k citation, h-index 55).

**Final Exam:** Project work discussion

#### **Room and Schedule**

Room: *Aula Riunioni del Dipartimento di Ingegneria dell'Informazione, Via G. Caruso 16, Pisa – Ground Floor*

Schedule:

*Monday, 9<sup>th</sup> February 2026 9:30-13:30*

*Tuesday, 10<sup>th</sup> February 2026 9:30-13:30*

*Wednesday, 11<sup>th</sup> February 2026 9:30-13:30*

*Thursday, 12<sup>th</sup> February 2026 9:30-13:30*

*Friday, 13<sup>th</sup> February 2026 9:30-13:30*

The course is in the framework of the educational activities of IEEE Student Branch at the University of Pisa



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