

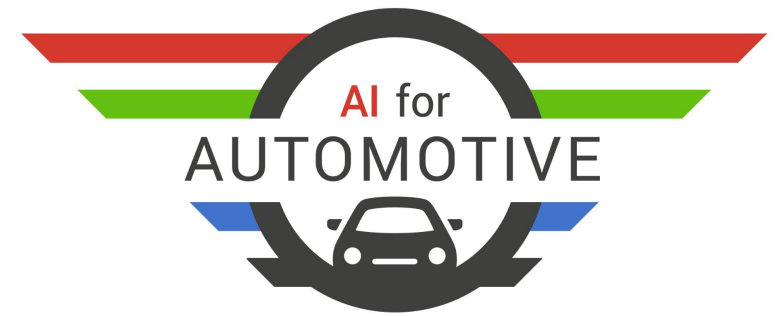


UNIMORE  
UNIVERSITÀ DEGLI STUDI DI  
MODENA E REGGIO EMILIA

30°  
DIEF

## “Autonomous Driving: the missing piece” Alberto Broggi (VisLab)

Cycle of Seminars on  
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### Autonomous Driving: the missing piece (Alberto Broggi)

29<sup>th</sup> October 2020, 9:00 a.m.

**Abstract:** Autonomous driving is currently a very hot topic, and the whole automotive industry is now working hard to transition from research to products. Deep learning and the progress of silicon technology are the main enabling factors that boosted the interest of industry and are currently pushing the automotive sector towards self-driving cars. Computer vision is one of the most important sensing technologies thanks to the extremely dense data set it can provide as output: object classification and recognition, precise localization, 3D reconstruction are just examples. This presentation addresses the missing piece that will allow future vehicles to make a full and efficient use of computer vision.

**Alberto Broggi** is the General Manager at VisLab srl and a former professor of computer engineering at the University of Parma in Italy. Widely considered a leading pioneer in the use of machine vision for automotive applications, he has been actively engaged in autonomous driving research and development for about 25 years. Alberto's visionary research ideas include many unique challenges that shaped the history of autonomous driving, starting in 1998: among them the first intercontinental autonomous driving test from Parma, Italy, to Shanghai, China, in 2010. In 2015 Alberto's group, VisLab, was acquired by Ambarella, a silicon-valley based company specialized in Ultra HD video processing with the aim of bringing VisLab's computer vision technologies into a low-power embedded chip. A frequent keynote speaker at computer vision-related conferences, Alberto was awarded two European Research Council (ERC) recognitions and in 2017 was honored with the IEEE Medal for Environmental and Safety Technologies “for leadership in vehicular environmental perception, and for setting worldwide milestones in safe and reliable intelligent vehicles.” In 2018, Popular Mechanics called Alberto's patent for a self-driving car one of the “15 Patents That Changed the World”.

Thursday, 29<sup>th</sup> October 2020, 9:00 a.m.  
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