



ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ
ΣΧΟΛΗ ΜΗΧΑΝΟΛΟΓΩΝ ΜΗΧΑΝΙΚΩΝ

ΔΙΑΛΕΞΗ

Spyros Zafeiropoulos

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με θέμα :

“Advanced Driver Assistance Systems & Autonomous Driving: A World Changing Force”

Περίληψη

In recent years the automotive industry has seen a massive influx of new technologies being used and embedded in everyday cars. These technologies either originate from other safety critical areas, e.g. aerospace, or share significant functional characteristics with other so-called high-tech industries, e.g. robotics. However, whereas the design of new products in other industries or the scaling up to reach the end user/consumer has been happening at rather low pace, for example a commercial aircraft requires ~10 years from conceptualization to production, the automotive world is changing extremely quickly, almost at the same pace as consumer electronics. One prominent example of the technologies adopted by the automotive industry is that of *Advanced Driver Assistance Systems* (ADAS), which is the first step towards the fully *Autonomous Driving* (AD) car. But, how fast is this transition from the manually driven cars to the fully autonomous vehicles and what does this mean for consumers, society, and even countries? The purpose of this talk is to bring awareness of this upcoming change and explain what ADAS and AD are, what their technical elements are, and who will be/is impacted by them.

Short Bio: Spyros Zafeiropoulos is the Global Chief Engineer for Algorithms regarding Advanced Safety at *Aptiv*, he is leading a global cross-functional team of 300 engineers, and is responsible for the end-to-end development of algorithms regarding active safety systems for cars and autonomous driving ranging from post-sensor processing, to perception, motion planning, and vehicle controls. During his time with *Aptiv* he has held different positions spanning both engineering, namely product development, and project management, such as Algorithm Architect and SAE Level 2 ADAS Controller Project Manager where he led a project with Life Time Revenue (LTR) of >\$2B. Spyros received his MSc from the Georgia Institute of Technology (Georgia Tech) in Aerospace Engineering in 2013 and his Diploma in Mechanical Engineering from the National Technical University of Athens (NTUA) in 2010. In 2012 and 2013 he worked as a Research Intern at Mitsubishi Electric Research Labs in Cambridge, Massachusetts. In his research years he focused on robotics, specifically on dynamics and controls, with applications ranging from Unmanned Aerial Vehicles (UAVs) to semi-/autonomous driving and human-machine interaction. His current interests lie in the area of advanced technologies for autonomous driving, in particular related to multi-sensor fusion, perception and functional safety, as well as in the area of organizational theory & team management in relation to high-performing engineering teams and accelerated software development.



Η διάλεξη θα γίνει την **Πέμπτη 26 Σεπτεμβρίου 2019, ώρα 12:00**, στο Αμφιθέατρο Πολυμέσων, Βιβλιοθήκη, Ισόγειο

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