

Unmanned Air, Sea and Underwater Vehicles

Unmanned air vehicles (UAV), unmanned sea vehicles (USV) and unmanned underwater vehicles (UUV) have become very popular in the last 10 years. The aim of this talk is to introduce various existing UAV, USV and UUV types and their features. The particular emphasis will be on the vehicles especially designed by myself and my research group. There will be a short discussion on how those vehicles can actually be built. Finally, some new concept vehicle designs will be mentioned.

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Mehmet Kemal LEBLEBİCİOđLU is a full professor of Electrical and Electronics Engineering Department of METU since 1999. He has a background in optimization, optimal control theory, computer vision, intelligent systems, flight control, walking robots and unmanned vehicles. He got a Ph.D. from the Mathematics Department of Middle East Technical University, on 1988, His Ph.D. thesis is "An Optimal Control Problem with Nonlinear Elliptic State Equations". He is in several IFAC technical committees. He was the editor of the Journal ELEKTRİK published by TUBİTAK (Turkish Scientific and Technical Research Council) from 1996 to 2009. He is in the editorial board of several Turkish technical journals. He conducted several R&D projects as project leader and researcher, gave consultancy to several civilian and government research centers. In 2011, he established the company "Desistek" in METU/Teknokent, whose specialty is the construction of unmanned sea, underwater, surface and air vehicles. Nowadays he makes research on decision making systems and on unmanned vehicles, in particular, unmanned air and underwater vehicles, their guidance, autopilot designs and system identification.

