



A LECTURE COURSE SERIES: FROM CONCEPT ENGINEERING TO IMPLEMENTATION OF SIGNAL PROCESSING ALGORITHMS WITH FPGAS (MonAmOR4)



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* Abstract :

The design of complex modern embedded systems like wireless communication systems becomes increasingly inefficient. The methods used in the design process ranging from system concept design to hardware and/or software implementation are diverse, and typically managed by different teams with quite different expertise in a company. This naturally leads to communication problems between the teams. In this paper we highlight a new concept on hardware–oriented signal processing in education, where the same group of students passes through the whole design process. We describe a tripartite coordinated course series consisting of a lecture, a concept and simulation oriented exercise course using MATLAB and a practical course, where finally real hardware is developed using FPGAs (Field Programmable Gate Arrays).

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