

Notice of dissertation defense

03.10.2017

Integrated all-digital radio transmitters for future 4G and 5G wireless communications

Title	Integrated High-Speed DSP for All-Digital RF Transmitters
Content	<p>In today's hyperconnected world, all the information (audio, images, video, etc.) is represented and processed in the digital domain. However, wireless transmission requires the generation of a radio signal in analog form. The work presented in this dissertation brings the interface between digital and analog domains as close to the antenna as possible, with clear benefits from a system and technological perspective.</p> <p>In particular, this thesis presents integrated circuit implementations that extend the share of transmitter functionality implemented using digital signal processing (DSP). Besides exploiting all the benefits of the digital approach, DSP-based solutions also take advantage of highly automated standard design methodologies, thus enabling straightforward design reusability and portability to newer technologies.</p>
Field of research	Micro- and nanoelectronic circuit design
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