Education Column



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AP-S Undergraduate and Graduate Research Awards

Twice per year, the IEEE Antennas and Propagation Society bestows its Undergraduate and Graduate Research Awards on deserving students working in the area of electromagnetics. In the most recent round of grants, five graduate awardees emerged from a large pool of talented applicants. Please join the AP-S Education Committee in congratulating these hardworking students.



Alessandro Della Villa University of Siena, Siena, Italy Advisor: Filippo Capolino

Project description: Alessandro plans to design and construct highly directional antennas using electromagnetic bandgap structures. He will focus on the terahertz and infrared portions of the spectrum, and his work will include collaborations with investigators at other universities.



Tutku Karacolak

Mississippi State University, Starkville, Mississippi, USA Advisor: Erdem Topsakal

Project description: Tutku will be conducting *in vitro* and *in vivo* tests of a newly designed implantable antenna, intended for use in medical monitoring. The targeted frequency ranges are 402-405 MHz and 2.40-2.48 GHz.



Habeeb Ur Rahman Mohammed

New Mexico State University, Las Cruces, New Mexico, USA Advisor: Muhammad Dawood

Project description: The focus of Habeeb's project is the design and construction of a 500 MHz ground-penetrating radar system that will employ coded sequences to reduce sidelobe levels. An especially important consideration is the portability of the system.



Kasra Payandehjoo

McGill University, Montreal, Quebec, Canada

Advisor: Ramesh Abhari

Project description: Kasra will be working in the area of integrated antennas for wireless networks. His goals are to improve the performance of these types of antennas using electromagnetic bandgap structures, and to develop a simplified analysis method for them.



Elena Saenz

Public University of Navarra, Pamplona (Navarra), Spain

Advisor: Peter de Maagt

Project description: Elena's research will involve the design, prototyping, and testing of a low-profile multi-frequency phased array. She will make use of a metamaterial-based superstrate in order to realize a compact and efficient unit.