



University of Pavia
Ph.D. School in Electrical and Electronics Engineering and Computer Science

SEMINAR

Advanced trends in outer space exploration and ground station technology

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Abstract: The rapid technological advancement in long-range communication systems has enabled the human being to get more and more acquainted with outer space exploration. By relying on specialized earth stations for the remote control of unmanned space vehicles, the most remote areas of our Universe have finally become accessible. However, due to the extreme environmental conditions that a satellite has to face, the real challenge lies in the maximization of scientific return combined with a cost-saving strategy. Take your seats for take-off and prepare yourself for your first extraterrestrial travel trip, during which we will find answers to some question marks about advanced spacecraft navigation and support: what are the technological requirements that shall be met to operate a satellite? What are the latest trends in the space industry nowadays? How does a ground station work? Is it still worth spending such a great amount of money in space exploration?

Bio: Andrea Giannini was born in Pavia, Italy, in 1987. He received the M.Sc. degree (summa cum laude) in electronic engineering and the Ph.D. in electronic and computer science engineering from the University of Pavia, Italy, in 2011 and 2014, respectively. In 2015 he joined the European Space and Operations Center (ESOC), Darmstadt, Germany as a Research Fellow to work on new generation Deep Space Antennas arraying architectures for future enhanced mission support at large data rates. In September 2017 he joined Leaf Space srl where he is currently the responsible for the operation and maintenance of ground station antenna systems tailored for nano, micro and small satellites applications.

Organizers

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Seminar in English

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