

## **Space Exploration: EMI/EMC Problems/Solutions NASA ~ Past/Present/Future Missions “Orion” Mars/Moon Spacecraft**

**Professor John Norgard**  
NASA/JSC – Houston, Texas, USA

**Friday, 15 May 2015 @ 3.30 PM**

**Venue: ICRAR, 1 Turner Avenue - Technology Park - Bentley**

*This seminar is open to the public and admission is free to all IEEE members and non-members*

### ***Abstract:***

This seminar on space exploration will present an overview of NASA’s past/present/future missions, with an emphasis on EMI problems and EMC solutions. The past mission of NASA was to design and build the Space Shuttle (SS), which was used to build the International Space Station (ISS). The present mission of NASA is to support the ISS with new equipment, supplies, and crew changes. The future mission of NASA is to design/analyze a new blunt-body re-entry vehicle to replace the decommissioned SS for a crew exploration vehicle to operate past the orbit of the ISS, and to eventually fly to the Moon and Mars.

### ***Biography:***

John Norgard received the BSEE degree from Georgia Tech and MS and PhD degrees in Applied Physics from Caltech.

Before coming to NASA/JSC as the Chief Engineer for Electromagnetic Environmental Effects (E3), Dr Norgard was a Professor at the University of Colorado, and was the Chief Scientist at the Rome Research Site of the Air Force Research Lab. He was a Distinguished Visiting Professor at the US Air Force Academy and was also a Visiting Professor at the Tel-Aviv University and was a member of the Technical Staff of the Bell Telephone Laboratories.

Professor Norgard was the Dean of the EAS College, Chair of the MAE Department, and Chair of the ECE Department at the University of Colorado. Before joining the University of Colorado, he was a Professor in the ECE Department at Georgia Tech and was a Post-Doctoral Fellow at the Norwegian Defense Research Establishment in Oslo, Norway. He has also served as an Adjunct Professor at Syracuse University and at the University of Houston.

He worked at NASA/JPL while studying at Caltech, and was a Co-Op student at Georgia Tech while working at the Charleston Naval Shipyard and Polaris Submarine Base.

Dr Norgard is a Fellow of IEEE, on the Board of Directors of the EMC Society, on the Board of Directors for ACES, past member of the Board of Physics and Astronomy for NAS and NRC, Past Chairman for Commission A/Metrology of URSI, and an Associate Editor of the EMC Transactions in the area of antenna metrology.

Dr Norgard has authored several hundred journal articles and conference papers and is the author of several chapters in four electromagnetic books.

