AP-S / MTT-S Chapter Victoria

Technical Lecture

RF Filters Past and Present

A look at Filters used for Receiver Front Ends and for IF Amplifiers



**Presenter:** Graeme Madigan (EMACRF)

**Time:**  5:30 (refreshments) for 6:00 - 7:00 pm talk

 Thursday, 26 July 2018

**Venue:** Building 13 Room 04.008

 Emily McPherson Building, corner Russell & Victoria Streets (enter from Russell Street)

 RMIT University, Melbourne, 3000

**RSVP:** Please register at [Eventbrite](https://www.eventbrite.com/e/rf-filter-design-past-and-present-tickets-47941990785) . This is a free event and guest welcome

**Abstract:**

Filters have an extremely important roll in Radio/Telecommunications. This talk will cover the changing methods of implementation of RF filters, primarily for radio receivers, from the early days of radio 100 years ago up to modern technology, such as the ubiquitous iPhone. It will deal with some of the issues confronting the filter design engineer and include frequencies from 455 kHz to 850 MHz.

**Biography:**

Graeme Madigan is a graduate from RMIT in Radio/Communications Engineering and has a Master’s degree in Systems Engineering from RMIT University. He also has Graduate Diploma of Occupational Health and Safety Management from the University of Adelaide.

Graeme spent many years as an R&D engineer with the State Electricity Commission of Victoria, Radio Communications Section working on the design of Test Equipment, VHF and UHF transmitters and receivers and especially Frequency Division Multiplex (FDM) equipment. In the 1970s Graeme, together with an SECV colleague, initiated a change from Image Parameter filters to Modern Network theory filters; both passive and active. In 1991 after the demise of the SECV Graeme became involved in the Defence industry. In 1992 he joined the JORN project, initially as an EMC specialist and System Safety Engineer, but later became responsible for the JORN Receiver Subsystem and the JORN Receive and Transmit Antennas. Between 2000 and 2002 Graeme successfully completed the verification and validation of the performance of the JORN antennas using ground and airborne equipment. Following completion of JORN Graeme moved to Tenix Aerospace where he assisted in the design and implementation of the EMV testing of the Seahawk upgrade (PS 1405). Other roles included the analysis of the HF Broadband Communications on the ANZAC frigates and recommendations for system improvements. After leaving Tenix Aerospace, Graeme provided services to Defence Canberra and BAE -Maritime Australia based at Williamstown. After spending two years with the Victorian Government Department of Justice as the Senior Systems Engineer for the Major Project Procurement Office, Graeme returned to the defence area until his retirement in 2015.

Graeme is a Fellow and Life Member of Engineers Australia and a member of the IEEE and has served as a Council Member for the EMI/EMC society.

**For further information contact:**

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