



# Practical Papers, Articles and Application Notes

*Flavio Canavero, Technical Editor*

## Dear Readers,

This is my farewell message. I will miss this quarterly appointment with you, by means of the papers that I was regularly offering for your reading and meditation. However, I know that the incoming Technical Editor (Professor Kye Yak See from Nanyang Technical University, Singapore), with his enthusiastic leadership and competence, will bring to your attention a new wave of interesting and challenging papers. This is what we need for keeping the freshness and success of our Newsletter.

In ending my term, I wish to express my sincere thanks to the Board of Directors of the EMC Society for their confidence in my work, and in particular to the Newsletter Editor, Janet O'Neil, for her invaluable support during these years; I really enjoyed working with her. During my turn, I was very lucky to find a large number of experienced contributors who gifted the Newsletter with very informative papers. I wish to thank these authors for the time and zeal they put into the preparation of their contributions. I also would like to mention the anonymous reviewers, who worked behind the scenes; their very enlightening comments frequently helped the authors to focus and polish their papers.

In the current issue, I bring to you two outstanding contributions. The first article is entitled "A Simpler Alternative to Wave Tracing in Solving Transmission Lines" and is authored by Professor Clayton R. Paul, who presents a practical and simple method for rapidly sketching the terminal waveforms of a transmission line. Professor Paul's intent is to suggest a clever technique avoiding the cumbersomeness of tracing all the individual waves propagating along the line

and adding their effects at the terminals (please think of how you would do using the "lattice" or Bergeron method). This paper provides general equations for the terminal voltage and current waveforms in terms of symbols, so that the result is applicable for all problems and does not have to be rederived for every line. Also, the validity of this technique is not limited by specific source waveforms.

The second article is entitled "Shielded Cable Transfer Impedance Measurements; High Frequency Range 100 MHz–1 GHz" by Bernard Démoulin and Lamine Koné, with the TELICE Lab of Lille University of Science and Technology, in Lille, France. This is a second contribution of a series on the determination of the transfer impedance of cables and connectors, and brings us the highly competent view of one of the labs that mainly contributed to the IEC Standard on transfer impedance characterization of cables. Professor Démoulin, recently retired, has graciously agreed to share with us the significant experience he cumulated in the former Laboratory for Radio-propagation and Electronics (now TELICE), where testing procedures for cable shielding effectiveness were developed.

*EDITOR'S NOTE: It is with mixed emotions that I edit this column. I have enjoyed working with Professor Canavero for several years on the EMC Newsletter. His tremendous work, and that of his colleague before him, Professor Bob Olsen of Washington State University, was critical to the IEEE approval of the transition of the EMC Newsletter to a magazine in 2012. Professor Canavero's dedication to this column and his professionalism in dealing with the numerous authors and reviewers over the years will always be appreciated. I look forward to working with Professor Kye Yak See and welcome him in our next issue as the new Technical Editor.*