EM Revitalization Program in Taiwan

Professor (Dr.) Tzyh Ghuang Ma
National Taiwan University of Science and Technology, Taiwan

Abstract
Electromagnetics has a glorious history with great accomplishments in theory as well as applications. The fruitful outcomes, while enriching our daily life, have become a burden to new comers to learn. To be excellent in electromagnetics, one is required to understand intangible wave concepts as well as to be skillful in calculus and vector analysis. Due to a number of emerging new fields in electrical engineering, there is also a global trend that less and less students are willing to choose electromagnetics as their major. Being aware of the crisis, an EM revitalization program, under the support of the MOA of Taiwan, was kicked off in 2012. Through the years, a group of electromagnetics professionals voluntarily undertook a number of efforts to re-attract the students' attention and recall their enthusiasm in studying electromagnetics. Open courseware, customized learning paths, interactive animations, experiments with LEGO approach, and the international EM proficiency test (iEMPT) are among the main topics we covered.

Keywords
Electromagnetics, EM Revitalization Program, LEGO Approach, international EM Proficiency Test (iEMPT)