

Third Laureate Applied Research

◆ **Project title:** Design and construction of 1-5/8 (in) coaxial cable production line and manufacturing of 1-5/8 (in) coaxial cable

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Abstract:

The present research project, developed to design and manufacturing 1-5/8 inch Air-dielectric coaxial cable production line. Coaxial cable includes an internal conductor, an insulator interfaces, an external conductor and an external layer of polyethylene to protect the accommodation. A complete production line designed for the 1-5/8 inch coaxial cable. Production line includes a pipe-rolling line, TIG welding unit, spiral corrugators of copper tube unit, interface insulator extruder machine, external shield extruder machine, caterpillar, take-off and take-up units and a network analyzer testing unit for measuring electrical parameters of product. Finally, after making the complete production line, manufacturing of order (1-5/8 in coaxial cable, 7000 m), was implemented in accordance with its standards. One of the major features of this research is to be interdisciplinary, including courses related to mechanical, metallurgical, petrochemical, electronic, and telecommunication sciences.

