Department of Mechanical and Aerospace Engineering
Indian Institute of Technology Hyderabad
Kandi - 502285, Sangareddy, Telangana, India

Department Seminar Talk Notice Template

Title: Aviation Hydraulic Control Systems
Speaker: R. Yogananda Reddy, Scientist 'G'
Affiliation: Dy Project Director, RudraM-II, Research Centre Imarat, DRDO, Hyderabad.
Date, time, and venue: January 10, 2024 (Wednesday), 1430-1555 Hrs, C-LH-2, C-Block, IITH
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Abstract | Control Systems in launch vehicles and Flight Systems are employed basically to steer the vehicle towards target. Hydraulic Control Systems were often developed for the requirements where it is demanded to move large forces at higher speed of response. In addition, Electro Hydraulic Actuation System offers better stiffness and stability. Control of Launch vehicle is generally by deflecting the Control Surfaces in case of Aerodynamic Control system(ADC) or by Vectoring the engine thrust in case of Thrust Vector Control (TVC). The other means of actuation is by Electro Pneumatic and Electro Mechanical. Merits and demerits of each type of these systems and selection of these systems for different requirements will be discussed. Design philosophy, Hydraulics Fundamentals and principles will be emphasized. Role and functioning of these systems will also be illustrated.

About the Speaker | Write about yourself within 200 words. A general introduction about yourself and key achievements should be fine. Graduated in mechanical Engineering from Regional Engineering College, Warangal (Present NITW) in the year 2000. Worked for the development of various control systems required for AGNI programme across all the variants for about 16years. Presently working as Dy. Project Director for RudraM-II, development of Airworthy long range weapon to integrate on various fighter jets of Indian Air Force.