

Internal Seminar

3D modelling and static simulation of various Research and engineering applications

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An overview of 3D modelling and static simulation of various Research and engineering applications, including external pressure vessels, optic-based medical devices, opto mechanics, linear stages and actuators. The process of setting up a static loading simulation in CAD, specifically Autodesk Fusion 360, is discussed in detail. 3D modelling and simulation have become increasingly important in the Research industry as they allow for the creation of complex designs and the testing of their performance in virtual environments. External pressure vessels (vacuum chambers) are widely used in Labs, Optic-based medical devices such as Whole slide Imager and Stereo Intravenous Machine require precision engineering and reliability. Autodesk Fusion 360 provides a range of tools and features for setting up and running simulations, including mesh generation, solver settings, and post-processing tools for analysing the results. Overall, the use of 3D modelling and simulation tools, such as those offered by Autodesk Fusion 360, can help Scholars and Engineers to optimize designs, reduce prototyping costs, and improve the performance and reliability of a wide range of applications.

Tuesday, Mar 21st 2023

11:30 AM (Tea / Coffee 11:15 AM)

Auditorium, TIFRH