Figure 1 Terminology of clamped circular sandwich plate under circular flat-ended punch.

Dr. Sellakkutti Rajendran

From: A. Rajaneesh, I. Sridhar, S. Rajendran. (2014). Failure mode maps for circular composite sandwich plates under bending. International Journal of Mechanical Sciences, 83(6), 184-195.

See:

https://research.ntu.edu.sg/expertise/academicprofile/Pages/StaffProfile.aspx?ST_EMAILID=msrajendran

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Biography:

Dr Rajendran obtained his M.Eng. and Ph.D. degrees in Mechanical Engineering from the Indian Institute of Science (IISc), Bangalore. Prior to his doctoral research at IISc, he had worked as R&D Engineer for about 5 years in two leading automobile companies of India. After his doctoral research, he worked as a Postdoctoral Research Associate at the University of Hong Kong for a year and as a Fellow/Senior Scientist (E1) at the National Aerospace Laboratories, Bangalore, for about 3 years. In Singapore, he has worked as a Senior Engineer at the Productivity and Standards Board for about 2 years, and as a Research Fellow at the Institute of High Performance Computing (IHPC) for about 2 years, before joining NTU in 2001.

At NTU, Dr Rajendran has served the School of Mechanical and Aerospace Engineering as an Assistant Professor from 2001 to 2004, Associate Professor from 2004 to 2012, Senior Research Fellow from 2012 to 2016 and Part-Time Lecturer from 2016 to 2017. Dr Rajendran is currently working as a Senior Lecturer at the School of Mechanical and Aerospace Engineering.

Dr Rajendran teaches several mechanics related undergraduate and graduate courses in mechanical and aerospace space engineering.

Dr Rajendran's primary research is in the area of computational mechanics. He has published about 50 research papers in reputed international journals and presented over 20 papers in conferences, workshops and symposiums. He has guided 4 PhD students to graduation. His research group at NTU has pioneered a family of mesh-distortion tolerant finite elements known as "unsymmetric finite elements" that have demonstrated the best possible immunity to mesh distortion effects. His group has also pioneered a novel numerical method known as "FE-meshfree method" that combines the merits of finite element and meshless methods.
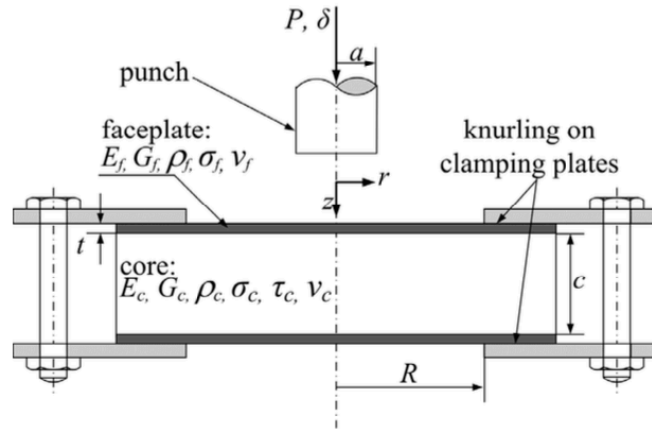
Research Interests:

Dr Rajendran's current research focuses on computational methods related to novel finite elements, meshless methods, and vibration and buckling of aircraft structures. Some past researches include molecular dynamics (MD) simulation of carbon nanotubes and graphene, computational methods for large eigenproblems, modelling of MEMS gyroscope and delamination buckling of composites.

Selected Publications:

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