

NAME: R. REMESH KUMAR.

DESIGNATION: Professor, Adjunct Faculty



Contact Information

Official Address : Department of Mechanical Engineering,
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Professional Qualifications

B-Tech	Specialization	Mechanical Engineering
	Institute/University	Kerala University
	Year	1972 - 1976
M-Tech	Specialization	Machine design
	Institute/University	Kerala University
	Year	1977-1979
PhD	Specialization	Aeronautical Engineering / Aerospace Engineering
	Institute/University	Indian Institute of Technology, Bombay
	Year	1984

Area/Research Interests

- **Fracture of composites, Design and fabrication of Honeycomb structures, Impact and joints of bamboo structures, Post buckling of composite shells etc.**

Professional Experience

- **Prior to the present occupation served as senior engineer and Head under Structures Entity, VSSC, Thiruvananthapuram for about thirty years from 1986 to 2014 in the field of aerospace structures**

Responsibilities/Position (Department, College and University)

- **Professor, adjunct faculty**

Publications (Journals/ International Conferences)

- **About 100 + numbers**

List of recent publications (2012- 2018)

- RameshKumar, R, Lijo James and Nalla Perumal, “NCCR - Aramid Sandwich Insulator for Cryogenic Applications”, International Conference on Computational Materials Science and Thermodynamic Systems (CMST 2018), 22-23 March, 2018, Cambridge University , UK
http://www.inderscience.com/info/inauthors/author_mp.php
- P. V. Sreeram, H. Ramachandran and R. R. Kumar, "Performance assessment of bamboo blade wind turbine as a green composite," *2017 IEEE International Conference on Circuits and Systems (ICCS)*, 20-21 Dec. 2017, Thiruvananthapuram, Kerala, India, 2017, pp. 359-363. doi: 10.1109/ICCS1.2017.8326021.
URL: <http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=8326021&isnumber=8325947>. Jnl. of IEEE, ISBN: 978-1-5090-6479-3.
- Sajil, V. P and RameshKumar. R, “Tranforaminal Lumbar Inter body Fusion - A Finite Element Study”, Proceedings of the Advances in Mechanical Engineering and Mechatronics, Techsynod'17, Fourth National Conference and Workshop, Mar Baselios College of Engineering and Technology, Trivandrum, pp 290-300, 19-21 Dec., 2017.
- Pradeep M, RameshKumar R., “Analytical prediction of full field stress distribution in orthotropic shell with reinforced shell with reinforced hole, International Community for Composites Engineering(ICCE), Rome, Italy, July 16-22, 2017.
<https://www.dropbox.com/sh/oil5knyvj8akzwh/AACn711Y2NYBBilapV3iTVSa?dl=0>
- Melvin Vincent, Vishnu, and RameshKumar R, “Analytical evaluation of intra laminar fracture toughness of multilayered composites”, International Community for Composites Engineering, Rome , Italy, July 16-22, 2017.
<https://www.dropbox.com/sh/oil5knyvj8akzwh/AACn711Y2NYBBilapV3iTVSa?dl=0>
- Geethakumari, B, RameshKumar, R. and. Prakash, V S, “Influence of Mineral Admixtures on Fracture Energy of Refractory Cement at Elevated”, Material Science Forum, ISSN: 1662-9752, Vol. 866, pp 88-93, 2016, Trans Tech Publications, Switzerland. (vide Science.net)
- Goplakrishnan K C and RameshKumar R, “Delamination of Secondary Bonding around Cutouts in a Compressively loaded CFRP Skinned Sandwich Structure, Presented paper in the 3rd International Conference on Buckling and Post buckling Behaviour of Composite Laminated Shell Structures held at DLR, Braunschweig, Germany, March 25-27, 2015.

- Akhil M G, Sarathchandradas, M R, RameshKumar, R, "Theoretical prediction of transmission loss in CFRP skinned honeycomb sandwich Panel", ISMPE, **INCCOM-13**, paper No. 85, Nov. 14-15, 2014.
- RameshKumar, R, Vedachalam, N, Sumith, S, Design of Inter Tank Structure for Cryo Stage with a Common Bulk Head, International Astronautical Federation, 2013, URL. <https://iafastro.directory/iac/archive/tree/IAC-13/D2/5/IAC-13,D2,5,3,x19915.brief.pdf>
- RameshKumar, R Palaninathan, E Kishor, G.SunilKumar, B.Deependran, Role of Thermal Contact Conductance on Sandwich-Type Metallic Thermal Protection System Profile, AIAA J., Vol.5 (10), pp 2194- 2201, 2012. URL. <https://www.researchgate.net/publication/258568989>.
- Goplakrishnan, K.C, RameshKumar R and Anil Lal S, Cohesive zone modeling of coupled buckling-debond growth in metallic honeycomb sandwich structure, J. Sandwich structures and materials, 14(6), pp. 679-691, 2012.
- Saraswathy, B, Lalu Mangal and Ramesh Kumar, R, Analytical approach for modal characteristics of honeycomb sandwich beams with multiple debond, Journal of Sandwich structures and Materials, 14 (1), pp. 35-54, 2012.
- Saraswathy, B, Ramesh Kumar, R and Lalu Mangal, Dynamic analysis of honeycomb sandwich beam with multiple debonds, International Scholarly Research Network , ISRN Mechanical Engineering , Article ID 826952, pp. 1-7, 2012.

Achievements/Awards

- **One of the best Reviewers award given in the year 2014 (Acta Astronautica and Acta Mechanica) and in 2016 by Elsevier's Publications.**

Project/Consultancy

- **Nil**

FDPs and Workshops attended (Sponsored by TEQIP –II)

- Workshop on Ceramic , Nano and Carbon-carbon Composites (CNC Composites- 201 5) 10 to 12 December, 2015- Coordinated by Rajesh N R and R. Ramesh Kumar
- Short term course on Experimental stress analysis- 17-12-2016 to 23-12-2016 Coordinated by Dr. S. Anil Lal , provided support by R. Ramesh Kumar

Any other Information (maximum 500 words)

Moon Impact Probe that was placed on Malapart of MOON on 14th November, 2008, was designed, analysed, fabricated and structurally qualified by a team under HPDD when I was head of Honeycomb Product Development Division (HPDD) of VSSC, ISRO.

Ph.D guidance provided

Five faculty members from Engineering colleges worked under my guidance and obtained their Ph.D degrees as:

1. Dr. Geethakumari(2016), Sree Chitra Thirunal College of Engineering Trivandrur,
2. Dr. K.C Goplala Krishnana (2014)of College of Engineering Trivandrur,
- 3, 4, 5. Dr. Jose, S, (2002) Dr. Dileep P N (2004) and Dr. Saraswathy, B(2014) of TKM College of Engineering Kollam

Currently, three students, J. Muthupadyan, from VSSC, M. Pradeep from Mar Baselios College of Engineering and Technology and Vipin John from CET registered with me for their Ph.D programme.