Name of Faculty Dr. S. SOLOMON RAJ Designation Associate Professor

Nature of Job/Appointment Regular

Date of Joining 26-09 - 2005

E-mail solomonraj_mech@cbit.ac.in

Education Qualifications Name of the Degree **Class** Ph. D Ph. D (Mechanical Engineering) Awarded PG M. Tech (Solid Mechanics & Design, IIT Kanpur) First UG B. Tech (Mechanical Engineering) First

Work Experience

18 Years (Includes Research Experience) Teaching

Research 08 years

Industry Others

Solid Mechanics, Composite Materials, Machine Design, Design of Area of Specialization

Machine elements and Mechanical Vibrations.

SAE India: 7190410658 **Professional Memberships**

Responsibilities held at Institution

Level

Invited Speaker

Responsibilities held at Department

Level

- 1. Coordinator- MECHANICA, from 2015- Till date
- 2. ISO- Dept Coordinator, during AY: 2014-2015, 2015-2016
- 3. Member, Performance Assessment Committee: PG CAD/CAM from AY-2014 -2019.
- 4. Coordinator- PG (CAD/CAM) from 2020- Till date

Research Guidance

Awards Received

Courses Handled at Under Graduate / Post Graduate Level.

Mechanics of Solids theory & Lab, Design of Machine Elements, Machine Design, Control Systems Theory, Engineering Graphics, Mechanics of Composite Materials, Vibration Analysis and Condition Monitoring.

National Journals - Nil International Journals -11No. of Papers Published National Conference - Nil International Conference - 01

Projects Carried out

Patents

Technology Transfer

- Keynote Invited Lecture on "Sliding Contact Bearings & Rolling contact Bearings", on 13th &14th May 2020, in Department of Mechanical Engineering, GNIT, Ibrahimpatnam.
- 2. Guest Speaker on "Mechanics of Solids" held on 11th March 2020 Gurunanak Institutions Technical at Campus, Ibrahimpatnam.
- 3. Guest Lecture on "Mechanics of Solids", at GNIT, Ibrahimpatnam on 14th Nov 2019.
- 4. Guest Speaker on "Design of Machine Elements", held on 30th Nov 2018 at Gurunanak Institutions Technical Campus, Ibrahimpatnam.
- Expert Lecture on "Design of Machine Members-1", at Department of Mechanical Engineering, GNIT, Ibrahimpatnam, on 4th July 2018.



6. Invited talk on "Material Characterization and Kinematics of Shells", during one-week FDP on ETCMIA-17 on 20 to 25th March 2017.

No. of Books/Chapter Published with details

- 1. Vibrations: A tool for condition monitoring, "Machine Vibration Analysis", ISBN: 978-93-87418-10-3, pp.66-75, Vrindha Publishing House.
- 2. Material Characterization and Kinematics of Shells, "Emerging Trends in Composite Materials and Industrial Applications", 20th to 25th March, 2017 ISBN: 978-93-85518-09-6, pp.91-115, Vrindha Publishing House.
- 3. Finite Element Analysis of Composite Plates in Ansys, "Emerging Trends in Composite Materials and Industrial Applications", 20th to 25th March, 2017 ISBN: 978-93-85518-09-6, pp.116-133, Vrindha Publishing House.
- 4. Design, Fabrication and Analysis of Composite Marine propeller, ISBN-13: 978-93-85880-72-8, ISBN-10: 93-85880-72-1. McGraw Hill Education, pp.66-74, Oct 2015.
- Understanding Research methods, an online non-credit course authorized by University of London and SOAS University offered through Coursera on 17th May 2020.
- "Materials Science: 10 Things Every Engineer Should Know", 2. an online non-credit course authorized by University of California, Davis and offered through Coursera on 29th April 2020.
- "Machine Design Part-1", an online non-credit course authorized by Georgia Institute of technology and offered through Coursera on 28th April2020.
- Mechanics of Materials I: Fundamentals of Stress & Strain and Axial Loading an online non-credit course authorized by Georgia Institute of technology and offered through Coursera on 28^{th} April2020.
- 5. One Week Faculty Development Programme on "Recent Advances in Mechanical Engineering: A Research Perspective", during 6th to 10th July, 2020 organized by Department of Mechanical Engineering, MGIT, Hyderabad.
- 6. One-week FDP on "Industry 4.0- A design and manufacturing perspective", 16th June to 20th June 2020, Department of Mechanical engineering, CBIT.
- One-week ATAL FDP on "3D Printing & Design", from 15th to 19th June 2020, NITW.
- One-week FDP on Innovative teaching pedagogy in the technical institutions, organized by IQAC, MVPS's KBT College of engineering Nashik, during 1st to 5th June 2020.
- One-week FDP on "Research Among Youth", by Vardhaman College of engineering 28th may to 3rd June 2020.
- 10. Two Day FDP on "Effective Technical Report writing Using
- LaTeX", during 8th and 9th June 2020, MGIT, Hyderabad.

 11. One week FDP on "Outcome Based education and NBA Accreditation Process-UG", 28th may to 1st June 2020, CBIT, Hvderabad.
- 12. IIC online sessions conducted by Institution's Innovation Counsel (IIC) of MHRD's Innovation cell new Delhi to Promote Innovation, IPR, Entrepreneurship and start-ups among HEIs from 28th April to 22 May 2020.
- 13. One week FDP on "Outcome Based Education: A Step Towards Excellence" conducted by Govt.College of Engineering, Karad, Maharashtra from 11th to 15th May 2020.
- 14. One week FDP on "NAAC Awareness Programme for Faculty", organized by MMIT, Pune from 8th to 14th may 2020.
- 15. One week FDP on "Finite Element Methods for Beginners", April 20-24, 2020, Chitkara university through class connect
- 16. Two week AICTE Sponsored FDP "Recent Advances in Design and Development of Mechatronics & Robotic Systems", Organized by Department of Mechanical (Mechatronics) Engineering, MGIT, 4th to 16th Dec 2017.

Details of Short-Term Training Programs / Faculty Development Programs / Seminars / Workshops / Other Trainings (Attended and/or Organized).

- Organized AICTE sponsored Two day National Seminar on "Machinery Vibration Analysis", as Coordinator 5th to 6th Oct 2017
- Organized an FDP "Emerging Trends in Composite Materials and Industrial Applications", sponsored by TEQIP, 20th to 25th March, 2017.

International/National Journals from the Year 2017

- 1. Dr. S. Solomon Raj, Dr. G. Laxmaiah, N.Sandeep, "Design Analysis and Optimization of 6DOF Robotic Arm", International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), ISSN (P): 2249-6890; ISSN (E): 2249-8001(Accepted) June 2020.
- Dr. G. Laxmaiah, Dr. S. Solomon Raj, Dr P.V.R Ravindra Reddy "Experimental stress Analysis of Rocket Motor Casing Using Elasto-Plastic Strain Theory", International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), ISSN (P): 2249-6890; ISSN (E): 2249-8001 (Accepted) June 2020.
- 3. Dr. S. Solomon Raj, Dr. G. Laxmaiah & V. Ravi kumar, "Design and analysis of fuselage skin repair joint", International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), Vol. 9, ISSN (P): 2249-6890; ISSN (E): 2249-8001 Issue 3, Jun 2019, 887-894.
- 4. Dr. G. Laxmaiah, Dr. P. V. R. Ravindra Reddy, Dr. S. Solomon Raj, "Experimental studies on optimization of molding sand composition with tamarind kernel powder as additive", International Journal of Mechanical and Production Engineering Research and Development (IJMPERD), Vol. 9, ISSN (P): 2249-6890; ISSN (E): 2249-8001 Issue 3, Jun 2019, 939-946.
- 5. Dr. S. Solomon Raj., "Effect of stacking sequence on the performance of gas turbine casing using modal analysis", International Journal of Mechanical Engineering and Technology. e-ISSN: 0976-6359, p-ISSN:09766340 Vol.9,Issue.3,pp.800–805,2018.
- 6. S. Solomon Raj, and Dr. P. Ravinder Reddy., "Utilization of bend twist coupling to improve the performance of hybrid marine composite propeller", International Journal of Mechanical Engineering and Technology. e-ISSN: 0976-6359, p-ISSN:09766340 Vol.9, Issue.3, pp.443–449,2018.