E. RAJASEKHAR NICODEMUS

M.Tech. Mechanical & Industrial Engineering
Machine Design Engineering
Postgraduate (IInd Year Ist Semester)
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Indian Institute of Technology Roorkee

Area(s) Of Interest : FEM , Vibrations,Machine Design,Mechanics of Solids.Tribology

Educational Qualifications	Year	Board/Institution	CGPA*/ %
Postgraduate (Ist Year IInd Semester) (Mechanical Engineering)	2009	IIT Roorkee	9.700
Undergraduate Overall (Mechanical Engineering)	2008	Maharaj Vijayaram Gajapathi Raj College of Engineering,Visakhapatnam,Andhra Pradesh	88.000
Twelfth Class	2004	Sri Chiatanya,Visakhapatnam,Andhra Pradesh	88.100
Tenth Class	2002	Sri Visakha Residential School,Visakhapatnam ,Andhra Pradesh	86.500

*GPA on a scale of 10

INTERNSHIP

DAAD
DAAD Scholarship (September 2009 to April 2010)
50 students are selected from all IITs from all disciplines based on merit.

RESEARCH PUBLICATIONS

E.Rajasekhar Nicodemus **" Influence of Wear on the Performance of Multirecess Hydrostatic Journal Bearing Operating With Micropolar Lubricant "** ASME Journal of Tribology , APRIL 2010, Vol. 132, pp :021703-1

E.Rajasekhar Nicodemus **" A Study of Worn Hybrid Journal Bearing System with Different Recess Shapes under Turbulent Regime "** ASME Journal of Tribology , Accepted with revisions

E.Rajasekhar Nicodemus **" Orifice Compensated Multirecess Hydrostatic/Hybrid Journal Bearing System of Various Geometric Shapes of Recess Operating with Micropolar Lubricant "** Tribology International , Under Review

PROJECTS

Institute for Production Engineering and Forming Machines,PtU,Darmstadt,Germany
Modelling of surface roughness with help of finite element process (September 2009 to March 2010)
In bulk forming process,the surface roughness of semi finished parts and workpiece play a major role for process stability,tool life and product quality.During the plasticization,surface asperities are flattened due to large contact stress and surface enlargement .In the project a software tool shall be programmed,that calculates the actual surface roughness during finite-element(FE)forming simulation.It is planned to derive the tribological loads from simulation,that are done in the MCS-software FE-bundle marc/mentat

IIT Roorkee
Influence of wear on the pefromance of Hybrid/Hydrostatic bearing operating with

micropolar lubricant (March 2010 to May 2010)
The objective of the present work is to study theoretically the effect of wear on the performance of 4-pocket capillary-compensated hydrostatic/hybrid journal bearing operating with micropolar lubricant for the two different loading arrangements. The modified Reynolds equation governing the flow of micropolar lubricant in the clearance space of a multirecess journal bearing system is solved using Finite Element Method along with capillary restrictor flow equation as a constraint. The performance characteristics of a capillary compensated 4-pocket worn hydrostatic journal bearing operating with micropolar lubricant have been presented for a wide range of values of nondimensional load, wear depth parameter and micropolar parameters .

IIT Roorkee
A study on worn journal bearing system operating in turbulent regime (June 2009 to August 2009)
The objective of the present work is to study theoretically the effect of wear on the performance of 4-pocket hybrid journal bearing operating in laminar and turbulent regime for various compensating devices namely caplillary, orifice and constant flow valve. The Reynolds eqution for turbulent region is solved by using Newton Raphson method and Finite Element formulation with restrictor flow equation as a constraint. The results are presented for a range of operating parameter, wear depth and Reynolds number.

MVGR College of Engineering : Vizianagaram : AP
Designing and testing of Gas Turbine air filteration system by developing an experimental setup and verifying the test results with CFD analysis (Dec 2007- May 2008)
A detailed study of air intake systems of Gas Turbines has been carried out with a vision of optimizing the performance of air filtration systems.By properly analyzing the air filtration system and finding improvements, the operating cost of the Gas Turbine can be reduced.The design and testing of Gas turbine is made by development of experimental setup.The experimental results are compared with CFD analysis to find new modifications in air filtration system

SKILLS AND ACHIEVEMENTS

Computer Languages:	C , Java
Software Packages:	Matlab , Pro-E,Solidworks, Fluent, Ansys,Catia
Academic Achievements:	First in mechanical in JNTU,Hyderabad which has more than 230 affiliated engineering colleges
Languages Known:	English (S/R/W); German (S/R/W); Hindi (S/R); Telugu (S/R/W);

EXTRA CURRICULARS

Paper presentation (2007)
one out nine presenting a paper presentation on industrial problem by Mahindra and Mahindra tractors at techicnal event held by IIT Bombay(TECH FEST 2007)

Member of ASME (2009)
Member of ASME

PERSONAL DETAILS

Fathers name : NUTON ISRAEL **Date of Birth :** 15-02-1987
Gender : Male **Category :** General
Permanent Address : Eshcol ,Dno 46-13-23 dondaparthy Visakhapatnam 530016
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REFERENCES

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