



**MADANAPALLE INSTITUTE OF
TECHNOLOGY & SCIENCE**
(UGC-AUTONOMOUS)

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Circular Dated: 15-01-2019

All the students of III-B. Tech are here by informed that a Guest Lecture Research Scope in Mechanical Engineering is going to be conducted on 17 January 2019.

Please utilize the opportunity without fail


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Copy to: 1. All the III -B. Tech Class rooms.

2. Circular to Notice Board

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE

A Report on
An Awareness program
on
Research Scope in Mechanical
Engineering
organised by
Department of Mechanical
Engineering 17 January 2019



Submitted by: Dr. Chakradhar B. and Dr. Sivaiah. P, Senior Assistant Professors Department of Mechanical Engineering, MITS

Guests:

Mr. M. Rajasekhara Reddy, Research Scholar, NIT Rourkela

(Alumnus of MITS) Participants: B. Tech –III Yr- Students.

The department of Mechanical Engineering organised a guest lecture on “Research Scope in Mechanical Engineering” on 17 January 2019. The main objective of this lecture was to bring awareness among Mechanical Engineering students on the research scope in the broad areas of Mechanical Engineering.

Programme Inauguration:

Dr. Chakradhar B. Sr. Assistant Professor and convener of this programme welcomed all the dignitaries, faculty and students and expressed his gratitude to the Management and Principal for giving permission and financial support to organize this programme. Dr. Surya Narayana Raju – Professor and Head of the Mechanical Engineering department addressed the gathering. He briefly explained the motto of the programme. Later, Dr.

G. Sadasiva Prasad, Vice Principal (Admissions), emphasized the importance of research scope in Mechanical Engineering. Next, Dr. P. Ramesh Reddy, Alumni Secretary, Asst. Professor, Department of Mathematics emphasized the importance of this invited talk and congratulated the organizers of the ‘Guest Lecture’ and conveyed his happiness and thanks to the participants.

Session:

There are various areas in Mechanical Engineering to carry out the research. The field of design rotor and vibrations is one of the important area. This work deals with the modeling and dynamic analysis of turbocharger rotor system supported on various bearings including floating ring and foil bearings, which are exclusively meant for high-speed applications. The unbalance response of the rotor-bearing system is numerically obtained from finite element modeling. The bearing reactions are computed from pressure distribution which is obtained by solving 2-D Reynold's equation via finite difference approach. The time varying bearing forces along with the rotor system of equations are solved by the time integration scheme. After validation of the model, the equivalent speed-dependent floating ring bearing parameters are computed by inverse analysis approach using non-conventional optimization schemes. As the next step, the rotor supported on full-floating ring bearings is analyzed under varying conditions of temperature, pressure and flow stream velocity. Two case studies of the turbocharger rotor system are considered for analysis. A comparative study on the rotor supported over foil bearings and floating ring bearings are also conducted. As the rotor operates at high speeds, the amplitudes are of concern, especially at resonant conditions. In order to minimize the amplitudes, two different approaches, namely semi-active and active methods are employed. Use of electro rheological lubricants in floating ring bearing an active wedge control mechanism in gas-foil

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bearings is proposed for minimization of vibration amplitudes.

Mementos Distribution:

Finally, Dr. Surya Narayana Raju, Dr. G. Sadasiva Prasad, Dr. P. Ramesh Reddy felicitated the alumni persons with mementos.

Organizing Committee & Coordinators:

- Dr. G. Sadasiva Prasad, Associate. Professor and Vice Principal (Admissions).
- Dr. P. Ramesh Reddy, Alumni Secretary, Assistant Professor, Department of Mathematics.
- Dr. Surya Narayana Raju Professor and Head Department of Mechanical Engineering.
- Dr. Chakradhar Senior Assistant Professor, Department of Mechanical Engineering.
- Dr. Sivaiah. P, Senior Assistant Professor, Department of Mechanical Engineering.

PAPER CLIPS

Research Scope in Mechanical Engineering on 17 January 2019. Mr. M. Rajasekhara Reddy, Research Scholar, NIT Rourkela (Alumnus of MITS) discussed on two case studies of the turbocharger rotor system are considered for analysis. A comparative study on the rotor supported over foil bearings and floating ring bearings are also conducted. As the rotor operates at high speeds, the amplitudes are of concern, especially at resonant conditions. In order to minimize the amplitudes, two different approaches, namely semi-active and active methods are employed. Use of electro rheological lubricants in floating ring bearing an active wedge control mechanism in gas-foil bearings is proposed for minimization of vibration amplitudes. All III year B.Tech students attended the program.


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MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE**DEPARTMENT OF MECHANICAL ENGINEERING**

Guest Lecture Research Scope In Mechanical Engineering Organised By Department of Mechanical Engineering 17 January 2019

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3	16695A0303	Brahma Teja Pula	Brahma
4	16695A0304	Chaithanya Reddy Aramdaka	Chaithanya
5	16695A0305	Chinna Gurravaiah Kamanuru	Chinna
6	16695A0306	Gangasai Siva Varaprasad Nuta	Gangasai
7	16695A0307	Gopalkrishna Siriveli	Gopal Krishna
8	16695A0308	Lakshmi Suresh Reddy Reddygar	Lakshmi
9	16695A0309	Lokesh Kumar Anuma	Lokesh
10	16695A0310	Madhuvan Reddy Tupakula	Madhuvan
11	16695A0311	Mallikarjunareddy Boreddy	Mallikarjun
12	16695A0312	Manoj Kumar Reddy Dadam	Manoj
13	16695A0313	Mohith Kumar Yeddula	Mohith Kumar
14	16695A0314	Nagendra Pedipina	Nagendra
15	16695A0315	Narendra Domala	Narendra
16	16695A0316	Naresh Jyotha	Naresh
17	16695A0317	Navya Saladi	Navya N.
18	16695A0318	Obulesh Ediga	Obulesh
19	16695A0319	Pavan Kumar Gattamaneni	Pavan
20	16695A0320	Pradeep B	Pradeep
21	16695A0321	Prathap Bathula	Prathap
22	16695A0322	Praveen Kumar Reddy S	Praveen
23	16695A0323	Praveen Kumar Singadi	Praveen
24	16695A0324	Praveen Boyalapalli	Boyalapalli
25	16695A0325	Prudviraj Kanikireddy	Kanikireddy
26	16695A0326	Purushotham G	Purushotham
27	16695A0327	Rajesh Konduru	Rajesh
28	16695A0328	Ravi Varma Mudduluru	Ravi
29	16695A0329	Revanth Polam	Revanth
30	16695A0330	Rukesh Kumar Reddy Edde	Rukesh
31	16695A0331	Satyam Goud Ediga	Satyam
32	16695A0332	Sireesha Nallappagari	N. Sireesha
33	16695A0333	Sivanaga Raju Adaka	Sivanaga
34	16695A0334	Sreekanth Reddy Battula	Sreekanth
35	16695A0335	Sreekanth Koppula	Sreekanth
36	16695A0336	Sreenath Reddy Parla Palle Ch	Sreenath

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39	16695A0339	Srinath Laka	Srinath Laka
40	16695A0340	Suneel Polu	Suneel
41	16695A0341	Surendra Vunnam	Surendra
42	16695A0342	Suresh Muchumarri	Suresh
43	16695A0343	Syedhussain Patan	Syedhussain
44	16695A0344	Sai Sri Harsha Gorrella Veera	Harsha
45	16695A0345	Veerendra Babu Galla	Veerendra
46	16695A0346	Venkateswaranaidu Rallapalle	Venka
47	16695A0347	Vijaya Raghava Reddy Kanala	Vijaya Raghava
48	16695A0348	Yogananda Reddy Gotluru	Yogananda Reddy
49	16695A0349	Maniratnam Ummadi	Maniratnam
50	16695A0350	Rajasekhar Bodevalla	Rajasekhar
51	16695A0351	Vani Prasanna Mamidikayala	Vani Prasanna
52	16695A0352	Bhuvaneshwar Reddy S	Bhuvaneshwar
53	15699A0305	Amaranath Reddy Yanamala	Amaranath
54	15699A0306	Bharath Kumar Raju Konduru	Bharath Kumar
55	15699A0307	Bhargava Rama Naidu Karlakunta	Rama Naidu
56	15699A0308	Chalapathi M	Chalapathi
57	15699A0309	Dileep Kumar Enjam	Dileep Kumar
58	15699A0310	Dilipchand Yadav Mandem	Dilipchand
59	15699A0311	Dilleswara Reddy Dayyala	Dilleswara Reddy
60	15699A0312	Dilliganesh L V	Dilliganesh
61	15699A0313	Dwarakeswara Adimulam	Dwarakeswara
62	15699A0314	Fazeel Sheik	Fazeel Sheik
63	15699A0315	Mohammed Ashfaq Shaik Gajula	Ashfaq
64	15699A0316	Gurrappa Vemula	Vemula
65	15699A0317	Reddy Harish Kumar Reddy Motuk	Harish Kumar
66	15699A0318	Harshavardhan Reddy Peddasani	Harshavardhan
67	15699A0319	Imran Pattan	Imran
68	15699A0320	Aja Ali Kamuluri	Aja Ali
69	15699A0321	Lokesh Vardhan Vakamalla	Vardhan
70	15699A0322	Lokesh C	Lokesh
71	15699A0323	Madhu Sudhan Reddy Peram	Madhu Sudhan
72	15699A0324	Mahammad Naseeruddin Shaik	Naseeruddin
73	15699A0325	Manideep Pasavala	Manideep
74	15699A0326	Thaheer Shaik Mohammad	Thaheer Shaik
75	15699A0328	Mohammad Rafi Tonakanicheruvu	Rafi
76	15699A0329	Faizan Ahaik Mohammed	Faizan
77	15699A0330	Mohammed Sawood Shaik	Sawood Shaik

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80	15699A0333	Nikhilesh Maski	.
81	15699A0334	Raja Sekhar Reddy Maramreddy	Rajasekh
82	15699A0335	Rakesh B	Rakesh B
83	15699A0336	Reedy Prasad Reddy N	Prasad Reddy
84	15699A0337	Rizauddin Shaik	Rizauddin
85	15699A0339	Sai Sagar Bejawada	Saisagar
86	15699A0340	Sai Swaroop Kumar Penukonda	Swaroop
87	15699A0341	Satheesh Reddy Chinthamani	Satheesh
88	15699A0342	Mohammad Altaf Vadla Shaik	Altaf
89	15699A0343	Shoukath Ali Patan	Shoukath
90	15699A0344	Sivakumar Reddy Pedda Kondredd	Sivakumar
91	15699A0345	Sreekanth Reddy Mutra	Sreekanth
92	15699A0346	Sumanth V	Sumanth
93	15699A0347	Tarun Chand P	Tarun Chand
94	15699A0348	Tejdeep Reddy Dunnathala	Tejdeep R.
95	15699A0349	Venkata Pavan Borra	Venkata pavan
96	15699A0350	Venkata Sai Kanth Reddy K	Venkata sai
97	15699A0351	Venkata Surendra Dhanikala	Surendra
98	15699A0352	Vinay Kumar Pulagurala	Vinay Kumar
99	15699A0353	Vishnu Chaitanya Manduri	Chaitanya
100	15699A0354	Vishnuvardhan Reddy Somu	Vishnuvardhan
101	15699A0355	Vishnu Vardhan Reddy Tatired	Vishnu
102	15699A0356	Prasanth Kotagadda	Prasanth
103	16690A0301	Charath Kumar Tm	Charath kumar
104	16690A0302	Midhun B	Midhun B.
105	16690A0303	Prathap Reddy Dayyala	Prathap
106	16690A0304	Sai Srinivas Kumar Reddy Mavu	Srinivas
107	16690A0305	Sasikumar Gollapalli	Sasikumar
108	16690A0306	Sreekanth Reddy Palle	Sreekanth
109	16690A0307	Sreekar Reddy Chinnareddyvari	Sreekar
110	16690A0308	Thirumalesh Kuruva	Thirumalesh
111	16690A0309	Vineeth Nagisetty	Vineeth
112	15691A0301	Abdul Junaid Shaik	Abdul Junaid
113	15691A0302	Akshay Gangapatnam	Akshay
114	15691A0303	Amarnath Reddy M	Amarnath
115	15691A0305	Ananda Kumar Yanamala	Ananda
116	15691A0306	Anil Kumar Menati	Anil Kumar
117	15691A0307	Anish Kukkala	k. Anish
118	15691A0308	Anush Kumar Musuluri	Anush Kumar

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120	15691A0310	Asha Tadipathri	Asha.T
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122	15691A0312	Ashrafvalli S	Ashrafvalli
123	15691A0313	Aubid Hussain Shaik	Hussain
124	15691A0314	Ayaz Shaik	Ayaz
125	15691A0315	Azmal Kolimi	Azmal.k
126	15691A0316	Barakathulla Khan Mayana	Barakath
127	15691A0317	Bhanu Prakash Reddy Akepati	Bhanu p. Reddy
128	15691A0318	Bhanuprakash Yalaka	Bhanuprakash
129	15691A0319	Bharathi Pulivendula	Bharathi
130	15691A0320	Bhaskar Subramanyam	Subrama
131	15691A0321	Bhaveen Teja Chenaka	Bhaveen Teja
132	15691A0322	Bramhananda Reddy Manchinti	Bramhananda
133	15691A0324	Devi Prasad K	K. Delli prasad
134	15691A0325	Dhanush Muthyala Kanika	Dhanush
135	15691A0326	Dhanush U G	Dhanush
136	15691A0327	Dileep Kumar Pasupuleti	Dileep Kumar
137	15691A0328	Dinesh Naidu Batta	Dinesh
138	15691A0329	Dinesh Repana	Dinesh
139	15691A0330	Divya Somara	S. Divya
141	15691A0331	Durga Prasad Kuntrapakam	Durga prasad
142	15691A0332	Fayaz Kulumala	Fayaz.k
143	15691A0333	Fuzail Ahamamd Shaik	Fuzail
144	15691A0334	Ganesh Babu Guditi	Ganesh Babu
145	15691A0335	Ganesh Vannappagari	Ganesh
146	15691A0336	Gangadhar B	Gangadhar
147	15691A0339	Girivardhan Reddy Y	Girivardhan
148	15691A0340	Gnaneswar Dondapati	Gnaneswar
149	15691A0341	Gopi Krishna Sapini	Gopi
150	15691A0342	Guna Sekhar Reddy Kondreddy	Guna sek
151	15691A0343	Guruswamy Avula Kuruva	Guruswamy
152	15691A0344	Habeeb Khan Mayana	Habeeb
153	15691A0345	Hareesh Naidu Yenugonda	Hareesh
154	15691A0346	Hari Batthala	B. Gopji
155	15691A0348	Hari Krishna Tatiparthi	Hari Krishna
156	15691A0349	Harish Kumar Reddy Mutra	Harish kumar
157	15691A0350	Harish Lakshmiopathy	Harish lakshmi
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174	15691A0368	Lakshman Kumar N	Lakshman
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176	15691A0370	Lokesh Babu Jalla	Lokesh Babu
177	15691A0371	Lokesh Nagendra Bannel	Lokesh
178	15691A0372	Lokeswar Reddy Yerrappareddy	Lokeswar
179	15691A0373	Madhan Kumar Noolu	Madhan
180	15691A0374	Madhavi Reddy G.V	Madhavi
181	15691A0375	Madhu Mohan Kummari	Madhu
182	15691A0376	Mahathi Revanur	Mahathi
183	15691A0377	Mahendra Kuruba	Mahendra
184	15691A0378	Mahesh Kotalo	Mahesh
185	15691A0379	Maneesh Kumar Reddy Pedaballe	Maneesh Kumar
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187	15691A0382	Manjula Maramreddygari	Manjula
188	15691A0383	Manoj Kumar Valapala	Manoj Kumar
189	15691A0384	Manoj Devineni	Manoj
190	15691A0386	Meena Kumari A	Meena Kumari
191	15691A0387	Mighty Sekhar R	Sekhar
192	15691A0388	Mohammad Ansari Shaik	M. Ansari
193	15691A0390	Mohammed Muzahid Kakula	Muzahid
194	15691A0391	Mohammedrizwan Shaik	Mohammedrizwan
195	15691A0392	Mohan Krishna Kammala	Mohan Krishna
196	15691A0393	Mohan Reddy Kodaginti	Mohan Reddy
197	15691A0394	Mohd Abdul Kamil Syed	Abdul Kamil
198	15691A0395	Ahmed Maaz Mukhtar	Ahmed Maaz
199	15691A0396	Muni Reddi Gokulaa M	Muni Reddi
200	15691A0397	Muzeeb Beduduri	Muzeeb
201	15691A0398	Narayana Swamy Bokula	Narayana

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205	15691A03A2	Naveen Kumar Reddy Vennapusa	Naveen Kumar
206	15691A03A3	Neeraj Kumar P S	Neeraj
207	15691A03A4	Rekha K	K. Rekha
208	15691A03A7	Pallavi Yanamala	Pallavi Yanamala
209	15691A03A8	Pavan Kalyan Mendra Guthi	Pavan Kumar
210	15691A03A9	Pavan Kumar Mekala Kotakuri	Pavan Kumar
211	15691A03B0	Pavan Kumar Seelam	Pavan Kumar
212	15691A03B1	Pradeep K	Pradeep K.
213	15691A03B2	Praneeth Cherukuru	Praneeth
214	15691A03B3	Praneeth Lali	Praneeth Lali
215	15691A03B4	Prasad Gootam	Prasad
216	15691A03B5	Praveen Kumar Gutha	Praveen
217	15691A03B7	Praveen Kumar Mangasetty	Praveen Kumar
218	15691A03B8	Praveen Kumar Pedda Dasappa G	Praveen Kumar
219	15691A03B9	Purushotham Shapuram	Purushotham
220	15691A03C0	Purushotham Mopuri	Purushotham Mopuri
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222	15691A03C2	Raghavendra Manchala	Raghavendra
223	15691A03C3	Rahul Akkupalli	Rahul
224	15691A03C4	Raja Mohan Reddy Dunnuthala	Mohan Reddy
225	15691A03C5	Raja Sekheraraju Umapati	Raja Sekheraraju
226	15691A03C6	Raju M	Raju M.
227	15691A03C7	Ramya Sree R	Ramya Sree
228	15691A03C8	Ranga Reddy Nallabothula	Ranga Reddy
229	15691A03C9	Ranjith Kumar H.N	Ranjith
230	15691A03D0	Reddy Manoj Devarakonda	Reddy Manoj
231	15691A03D1	Yuvasree Mure	Yuvasree M.
232	15691A03D2	Renuka Poola	Renuka
233	15691A03D3	Robinson K	K. Robinson
234	15691A03D4	Rudhreswar Enamala	Rudhreswar
235	15691A03D6	Rupendra Settipalli	Rupendra
236	15691A03D7	Sahabuddin Syed	Syed.
237	15691A03D8	Sai Charan Kuruva	Charan
238	15691A03D9	Sai Ganesh Koti	Ganesh
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