  DEPARTMENT OF MECHANICAL ENGINEERING



R.V.R. & J.C. COLLEGE OF ENGINEERING

Chandramouliupuram, Chowdavaram, GUNTUR - 522019

Dt: 02.04.2015

NOTE SUBMITTED TO THE PRINCIPAL:

Sub: Request for permission for Fixation of Charges for utilization of Equipment – Testing facility (Project Testing) – Reg.

Ref: Our Note dated: 28.01.2015.

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In continuation to the letter cited above, we wish to inform you about the equipment in the Research Centre of the Department of Mechanical Engineering and the charges we wish to collect from the students and research scholars from the other institutions.

The following are the equipment available in the Research Centre of the Mechanical Department. The Research Centre is based on faculty research interest in the areas of nano-technology, composite materials & tool condition monitoring.

These equipment will be helpful in hastening the research activities.

* Muffle Furnace with 5 kW heating elements
* Pit Furnace with 10 kW heating element
* Vacuum Pump
* Tally Surf Machine
* Cutting Tool Dynamometers
* Stir Casting with mechanical stirrer and Argon gas purging.
* Mechanical Stirrer
* Coordinate Measuring Machine; and
* Computerized variable compression Diesel Engine Test Rig
* Micro Vickers Hardness Tester.
* Ducom Wear Testing Machine
* Tool Makers Microscope with magnification upto 2000X.
* Research Sieves.
* Weighing Balance of Least Count 0.001 gm.

The department's big push into Nano-technology, Composite Materials & Tool Condition Monitoring is mainly due to the grants received from UGC & AICTE.

A project titled "Development and Characterization of High Strength Polymer Matrix Composites Reinforced with Metallic Glass Particulates" has been sanctioned under RPS of AICTE to Dr.K.Ravindra, Prof., & HOD as Principal Investigator and Dr.K.Praveen Kumar, Asst.Professor, as Co-Investigator with a grant of Rs.11,60,000/-. Industrial Ball Mill, Vickers Micro-Hardness Tester and Wear & Friction Monitor have been procured under this project.

UGC has sanctioned a project on "Tool condition Monitoring using Acoustic Emission and Vibration Signature in Hard Turning" to Dr.Kolla Srinivas, Professor as Principal Investigator and Sri Ch.Devaraj, Asst.Professor as Co-Investigator with a grant of Rs.8,07,500/-. Acoustic Emission Equipment & Tool condition monitoring equipment including Tool Makers Microscope are being purchased for this project.

Another project on "Fabrication & Characterization of Nano-Al2O3 reinforced Magnesium Metal Matrix Compound" was sanctioned by UGC to Dr.K.Ravindra, Prof., & HOD, as Principal Investigator & Sri D.Sameer Kumar and Sri C.Tara Sasanka, Asst.Professors as Co-Investigators with a grant of Rs.4,36,000/-. Wear & Friction Monitor has been purchased under this project.

The equipment in Research Centre can also be utilized for consultation work. Around 60 Research Scholars from other institutions are attached to the Faculty of Mechanical Engineering with Ph.D degree this year by ANU. These scholars can make use of the Research Centre for their Ph.D work.

A few staff members of the department are also doing research & some of them are keen to takeup work in the Research Centre.

The following are the charges the department wish to collect from users of the above equipment.

**Testing Charges**

|  |  |  |
| --- | --- | --- |
| S.No. | Description of the Test | Price fixed (Rs.) |
|  | Surface Finish Testing using Talysurf – Min. 10 Samples (there after Rs.50/- per each sample will be charged extra) | 500.00 |
|  | Casting facility – preparation of Alloys | 500.00 |
|  | Casting facility – preparation of composites using Mechanical Stirrer & Argon Gas purging | 1,500.00 |
|  | Hardness Testing using Vickers Hardness Tester (Rs.50/- will be charged Extra for each additional reading) | 300.00 |
|  | Wear Testing using Ducom Wear Testing Machine (per sample) | 300.00 |
|  | Melting of Metal using Muffle Furnace | 500.00 |
|  | Melting of Metal with pit furnace | 1,000.00 |
|  | Finding Machining forces using Cutting Tool Dynamometers | 500.00 |
|  | CNC programming with co-ordinate measuring machine | 500.00 |
|  | Use of Tool Makers Microscope | 500.00 |
|  | Use of Research Sieves | 300.00 |
|  | Using of Weighing Balance | 300.00 |
|  | Auto Clave with Vacuum pump for vacuum coating | 1,000.00 |

Hence, we request you to kindly permit us to implement these rates.

(Dr.K.Ravindra)

Prof., & HOD, M.E

Dr.KR / dvb

  DEPARTMENT OF MECHANICAL ENGINEERING



R.V.R. & J.C. COLLEGE OF ENGINEERING

Chandramouliupuram, Chowdavaram, GUNTUR - 522019

Dt: 28.01.2015

NOTE SUBMITTED TO THE PRINCIPAL:

Sub: Request for permission – Charges for utilization of Equipment – Testing facility (Project Testing) – Reg.

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With reference to our letter dated: 28.09.2013, the following are the charges fixed for the testing facility (Project Testing) for students / scholars from other Engineering Colleges / Universities / Industries.

**Facility (Testing)**

|  |  |  |
| --- | --- | --- |
| S.No. | Description of the Test | Price fixed (Rs.) |
| 1. | Surface Finish Testing using Talysurf – Min. 10 Samples (there after Rs.50/- per each sample will be charged extra) | 500.00 |
| 2. | Casting facility – preparation of Alloys | 500.00 |
| 3. | Casting facility – preparation of composites using Mechanical Stirrer & Argon Gas purging | 750.00 |
| 4. | Hardness Testing using Vickers Hardness Tester (there after Rs.50/- will be charged Extra for each reading) | 300.00 |
| 5. | Wear Testing using Ducom Wear Testing Machine (per sample) | 300.00 |

Hence, we request you to kindly permit us to implement these rates.

(Dr.K.Ravindra)

Prof., & HOD, M.E

Dr.KR / dvb