

## Core Research Group

Making things obsolete which were latest till yesterday

- **From the Director's Desk**

The New Year 2020 has come on a dreaded note with Coronavirus spreading all over the world and a total lockdown is eminent. We hope that with lock down and initiatives taken by the government, India will be able to face the challenge without much problem. During 2019, on research and innovation front, RNTU faculty has done an excellent job. It published record number of research papers and bagged prestigious IPRs with some good projects for technology transfer and start up initiatives which have been incubated in Atal Incubation Center of the University. Another good news is that RNTU has been ranked within first 200 in All India ranking by NIRF – The only private university of MP to get the honour.

- Prof. Vijay Kant Verma

- **Research Events – 2019**

- ❑ Session on importance of Internship – 9 Jan 2020
- ❑ One day workshop on IPR in association with enoble "Strategies for Plagiarism risks and IPRs to avoid legal challenges" – Feb 2020 and Research Component
- ❑ National Research Conference on M.P. Tribal Community 15-16 Feb 2019
- ❑ National Conference (Recent Advance in Mechanical, Manufacturing and Industrial Engineering and Technology) NCRAMMIET-2019 – 29-30 March 2019
- ❑ International Seminar on Intervention of ICT in teaching Learning and Research 7-9 March 2019
- ❑ Two days Workshop on Innovation & IPR: A Way to Sustainable Future 29-30 April 2019
- ❑ Workshop on Vibration Containment by GM BHEL- 13 May 2019
- ❑ One day session on New & Novel Material - 15 May 2019
- ❑ Case Writing Workshop – 12-13 Nov 2019
- ❑ Workshop on Research as a tool of Social Transformation and Institutional excellence- 8 Dec 2019
- ❑ Vishwa Rang 2019- A unique International Festival of Literature Culture and Arts was organised at Bhopal which continued for 10 days (Nov-Dec) with over 50 countries participating, 500 researchers, writers, artists of world repute participated in this mega event facing 10k audiences.

- **Internally Funded Research Projects - 2019**

Following 8 Projects funded by CRG have been completed and reports finalized. Copies of the reports are available at RNTU library and RNTU IQAC

- |                                                                                    |                         |
|------------------------------------------------------------------------------------|-------------------------|
| <input type="checkbox"/> Ecofriendly Pervious Concrete Block for rural application | - Dr. Shalini Yadav     |
| <input type="checkbox"/> Water Pollution and Control Measure                       | - Dr. SK Sharma         |
| <input type="checkbox"/> Pesticides in fruits and vegetables in CG region          | - Dr. Manish Upadhyay   |
| <input type="checkbox"/> IoT based product for smart city application              | - Dr. Preeti Maheshwary |
| <input type="checkbox"/> Solar Dryer System for Rural Application                  | - Dr. SD Rai            |
| <input type="checkbox"/> Dual Axis Solar Tracking System with higher reliability   | - Mr. Shrikant Vaishnav |
| <input type="checkbox"/> Financial Literacy in Youth                               | - Dr. Sangeeta Jauhari  |
| <input type="checkbox"/> Vertical Axis Wind Mill for rural application             | - Dr. SR Awasthi        |

- **Awards and Recognition bagged by RNTU- 2019**

- RNTU – the only private university in MP to find place in top 200 universities of India in NIRF.
- Faculty Innovation Excellence Award- Dr Reeta Pawar at WIEF supported by MSME and DST
- Faculty Innovation Excellence Award- Dr Sudeshna Ray at WIEF supported by MSME and DST
- Distinguished Research Professional Award - Dr S Veenadhari at WIEF supported by MSME and DST
- Leadership in Research Award - Dr. Anil Kumar Kurchania at WIEF supported by MSME and DST
- Distinguished Research Professional Award - Dr. Rajendra Gupta at WIEF supported by MSME and DST
- Distinguished Research Professional Award -Dr Sangeeta Pathak at WIEF supported by MSME and DST
- Distinguished Research Professional Award - Dr CP Mishra at WIEF supported by MSME and DST
- Faculty Innovation Excellence Award- Dr Kiran Mishra at WIEF supported by MSME and DST
- Faculty Innovation Excellence Award- Mr Vinay Yadav at WIEF supported by MSME and DST
- Distinguished Research Professional Award - Dr. Sanjeev Kumar Gupta at WIEF supported by MSME and DST

- **IPR Score- 2019**

Fourteen new IPRs have been acquired in 2019 by RNTU Faculty-

- Harmonic Detection and Reduction System 201921035658 Dr. Ashish Chauhan
- Bar Clamp 322260-001 RNTU, Bhopal
- Mouth Piece For Analysing Exhaled Breath 322254-001 RNTU ,Bhopal
- Pneumatic Clutch Actuator 322262-001RNTU, Bhopal
- Sheet Cutter 322255-001 RNTU, Bhopal
- Wood Cutting and Trimming Machine 322256-001 RNTU, Bhopal
- Frequency Convertor 322258-001 RNTU, Bhopal
- Vacuum Cleaner 322253-001 RNTU, Bhopal
- Portable Charger 322257-001 RNTU, Bhopal
- Method For Preparing Stone Matrix Asphalt 201921049692 Dr.Brajesh Singh
- System and Method for Identifying Knuckles of Users 201921049690 Ankit Pandit
- Prediction Device for Surface Roughness 201921049691 Rohit Pathak
- Video Shot Transition Detection Method 201921049693 Dr. Varsha Jatwani
- System And Method For Constructive Effort Estimation 201921049688 Dr. Sitesh K. Sinha
- "This takes the tally of RNTU patents to 33

- **Govt Funded Projects - 2019**

- Project Completed – Synthesis and Characterization of Lanthanide for Solar Cells funded by DST (Indo Taiwan Project) – Dr. Sudeshna Ray
- New Project Awarded – Development of Pyrophoric material for smart flare as IR counter measure – Dr. Sudeshna Ray

- **Publication - 2019**

- During 2019, RNTU faculty has published 35 research papers in SCOPUS/SCI/journals.
- Five books have been published by the RNTU faculty during 2019.
- The biannual research journal Anusandhan completes 8 years of uninterrupted publication of quality articles.