**Dr. Vishnu Agarwal**

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Career Objectives**:

I am an academician. I am highly perseverant individual with good communication skills and an analytical bent of mind. Utilizing my knowledge, skills, corporate and academic experience, I am determined towards making positive difference in academics.

**Academic Experience (16 years):**

* Worked as an Associate Professor and head, Department of Mechanical Engineering, ***Techno India NJR institute of Technology***, Udaipur from April 2018 to Dec 2019.
* Associate Professor and Head, Department of Mechanical Engineering, ***Geetanjali Institute of Technical Studies***, Dabok, Udaipur from 2004 to 2010 and July 2012 to April 2018.
* Associate Professor and Head, Department of Mechanical Engineering,***Aravali Institute of Technical Studies,*** Udaipur from August 2010 to July 2012.

**Scholastic Achievements:**

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| --- | --- | --- | --- |
| **Qualification** | **Institute** | **Specialization** | **Achievement** |
| **Ph.D** | College of Technology and Engineering (CTAE), affiliated  to MPUAT , Udaipur | Renewable Energy Engineering | Awarded  with 8.12  OGPA |
| **M.E** | Engineering College Kota.  Rajasthan University, Jaipur | Thermal Engineering | 75% (Hons.) |
| **B**achelor of **E**ngineering | Engineering College Kota.  Rajasthan University, Jaipur | Mechanical Engineering | 63.87% |
| **12th** **S**tandard | Multipurpose Sr. Sec. School, Gumanpura, Kota | Science-Maths | 59.7% |
| **10th** **S**tandard | Bal Vidhyalaya Sr. Sec. School, Kota | - | 73.3% |

Received **NPTEL online** certification from IIT, Madras.

|  |  |  |  |
| --- | --- | --- | --- |
| **Subject** | **% marks** | **Year of**  **certification** | **Certification category** |
| Mechanical vibrations | 85 | 2018 | Elite |
| Heat transfer | 85 | 2019 | Elite+ India top 5% |
| Refrigeration and air conditioning | 90 | 2019 | Elite +Gold +Top 5% |
| Robotics | 69 | 2019 | Elite |
| Engineering Mechanics: statics and dynamics | 61 | 2019 | Elite |
| Steam and Gas power system | 76 | 2019 | Elite + Silver |
| Thermodynamics | 60 | 2019 | Elite  Rank among 33 all india |

**Corporate Experience:**

* SAP functional consultant in PP/QM (Production Planning and Quality Management) module in Maagnus IT Info Pvt. Ltd. Chennai.

**Technical Competencies:**

* ERP: SAP R/3 4.7, ECC 6.0
* Languages: C, C++ (6 month training at C-DAC Jaipur)
* CAD/CAE Tool: Pro/E wild fire 2.0 , ANSYS

**Subjects Taught:**

**UG (B-Tech programme in ME & AE)**

*Engineering thermodynamics Mechanics of solids*

*Engineering Drawing Engineering Mechanics*

*Fluid mechanics and machines Design of machine elements I & II*

*Vibration engineering Heat transfer*

*Refrigeration and Air Conditioning advance mechanics of solids*

**PG (M-Tech programme in RET)**

Renewable energy sources solar energy

Wind energy technology

**M. Tech Thesis (02):**

I have acted as a mentor and guided two students in their M.Tech research work

1. Ms Dimple Shrimali:

“Design Development and Performance Evaluation of Low Cost Dryer For

Domestic Usage”.

1. Mr. Yash Chawla **:**

**“**Simulate The Behavior Of The VARIM Process (Vacuum Assisted Resin

Injection Moulding) For Large Wind Turbine Blades.”

**Project Coordinator:**

I have acted as the main guide and mentor for students in the following vehicle projects:

1. **ATV (All Terrain Vehicles)** for Mega ATV Championship 2019held in Goa. *Secured 65th All India Rank among 110 teams (Team –Dune Dwellers).*
2. **Hybrid Vehicle championship (HVC)**For [Formula Imperial-HVC-2019 Championship held at Buddha Circuit Noida-](https://www.facebook.com/ESVCISIE.1/?hc_ref=SEARCH&fref=nf)organized by ISIE, INDIA.
3. **ATV (All Terrain Vehicles)** for Mega ATV Championship 2016held in Bhubaneswar, Orissa. *Secured 18th All India Rank among 56 Teams & 1st Rank in Rajasthan. (Team –Reckoning Quarters )*
4. **GO-KART** *f*or *National* Go-Kart Racing Championship 2016 Season 3, 2016 Held at Kolhapur, Maharashtra. Secured 2nd position in Rajasthan and stood at 53rd position at National level among 364 teams. (Team - *Auto Endeavors*)
5. **Electric solar Hybrid Vehicle**for [Electric-Solar Vehicle Championship -ESVC](https://www.facebook.com/ESVCISIE.1/?hc_ref=SEARCH&fref=nf) 2016 Organized by ISIE, INDIA. The team received the “Go green award”.

*(Team –Reckoning Quarters)*

1. **E-**Bike -

**Projects guided:**

1. ***Solar Dryer Cum Water Purifier*** system at the roof of GITS mess.
2. ***Renewable energy based Hybrid solar water heating system*** used for hot water supply in hostels and kitchens.
3. ***Biogas plant*** for solving problem of kitchen waste discharge from the college mess.
4. ***Renewable energy based hybrid cooking system*** for boiling of pulses, rice, vegetables etc.
5. Industrial project of***“Automatic Sieve Machine”*** for differentiating size of the sand particles.
6. Working setup of ***Common Rail Direct Injection System (CRDI)*** system.
7. Designed and developed a “Prospective car” which was driven by compressed air.

**International Research Paper:**

1. Participated in International Conference on **“Advances and Innovations in Mechanical Engineering “**sponsored by CSIR, AMIE 2013, SPSU Udaipur, Oct 2013.
2. Presented a paper entitled **“Application Of CIGS Chalcopyrite Semiconductors In Solar Cells”** in an International Conference on Processing and Fabrication of Advanced Materials (PFAM XXIII), organized by Department of Mechanical & Industrial Engineering, IIT, Roorkee, on December 5-7, 2014.
3. Presented a paper entitled **“A Review Paper On Role Of Heat Pipes in Mechanical Applications”,** in an International Conference on Advance Trends In Engineering Technology and Research (ICATETR-2015), organized by Bal Krishna Institute of Technology, Kota on June 19-20, 2015.
4. **“Enhancement of Efficiency Of Photovoltaic System By Cooling Of Solar Cell”** GITS-MTMI international conference on (ISTMW-2015), organized by GITS Dabok, Udaipur on Dec 27-29, 2015.
5. Presented a paper entitled **“ Renewable Energy Based Hybrid Community Cooking System: A Review ,** in theInternational Conference on Recent innovation and Trends In Engineering ,Technology And Research (ICRITETR-2017), organized by Poornima College of Engineering Dec 23-24, 2017.
6. Presented a paper entitled **“4G Photo-Voltaic Cells”,** in theInternational Conference on “Eco-Smart Sustainable Development in Engineering Technology and Management” (ESDETM-2018), organized by Geetanjali institute of technical studies, Udaipur June 29-30, 2018.

**Papers and Publications:**

1. **“Modern Mathematical Techniques for Analysis of Temperature Distribution in Straight Profile Fins”** in International Journal of Engineering Research and Technology (IJERT), Volume 3, Issue.03, March-2014.
2. **“Mathematical Modeling and Simulation of Windmill Blade Manufacturing (VARIM) Process”** International Journal of Science and Research (IJSRT),Volume 5, Issue.09, March-2016.
3. **“Analysis of Inventory Management Performance–A case Study”,** in International Journal of Engineering Research and Technology (IJERT), Volume 6, Issue.03, March-2017.
4. **“Technomics of Renewable Energy Based Hybrid Community Cooking System”** in International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249-8958, Volume-8 Issue-5, June 2019.
5. **“Design of Solar energy based hybrid Community cooking system”** in International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249-8958, Volume-8 Issue-5, Oct 2019.

**Research Papers (National) presented:**

1. ***“A Novel Curriculum Pattern and Industry Oriented Teaching Model as a Suggested Solution for the Challenges faced by the Private Technical Institutions of***

***India”*** organized by Mandsaur Institute of Technology, in March, 2009.

1. ***“Application Of 5s and Vs in a Steel Industry”*** in a National Conference on Advanced Manufacturing Techniques conducted by Shri Mata Vaishno Devi University, Katra J & K, in November, 2009.
2. ***“Global Warming: A threat to earth’s survival”*** in a National conference on Energy management held at Department of Mechanical Engineering, Engineering college Bikaner in November, 2009.
3. ***“Nano-technology Embedded Hybrid Solar Cells for Optimum Energy Utilization”*** in a National conference on Energy management held at Department of Mechanical Engineering, Engineering College Bikaner in November, 2009.
4. ***“ICT for sustainable Development of Rural Areas: challenges Ahead”***in All India Seminar on “ICT for Rural Development: Access and application organized by The

Institute of Engineers (India), Udaipur in December, 2009.

1. ***“Corporate Social Responsibility-A Road Map for Inclusive Growth and Sustainable Development”*** in a National Seminar on Business Ethics: Emerging Paradigm held at Vidya Bhawan Rural Institute, Udaipur in March, 2010.
2. ***“Avenues for computing the heat transfer from a Rectangular Fin of Straight Profile”*** at the National conference on Advanced & Futuristic Trends in Mechanical and Material Engineering held at Yagyavalkaya institute of technology, under the Aegis of The institute Of Engineers, Jaipur in Apr-may 2010.
3. ***“Modern Machining Methods: Achievement of Sustainable Manufacturing Technology***"at the all India seminar on Advances in Manufacturing Technologies and challenges of the decade ahead, organized by College of Technology and Engineering, MPUAT, Udaipur under the Aegis of The institute of Engineers, Jaipur in June 2011.
4. **“Smart methods of Cooking–A step towards smart city”** presented in the National Conference on Road Map for Smart Cities of Rajasthan (NC-RMSCR) organized by GITS Dabok, Udaipur on Apr 5-6, 2017.
5. **“Study of Pneumatic waste collection system for Udaipur”** presented in the National Conference on Road Map for Smart Cities of Rajasthan (NC-RMSCR) organized by GITS Dabok, Udaipur on Apr 5-6, 2017.

**Workshops & Seminar (**AICTE-ISTE sponsored QIP & STC**) :**

1. **"Finite Element Techniques-Fundamental, Implementation and Application"** organized by Department of Mechanical Engineering, Engineering College Kota, 20-25 Dec 2004.
2. **"Computational Fluid Dynamics-Application"** organized by department of Mechanical Engineering, NITTTR, Chandigarh , 12-16 June 2006.
3. **AICTE sponsored National workshop on CAD/CAM organized** by Department of Mechanical Engineering, Engineering College Bikaner, 19-20 Dec 2008.
4. **"Industrial Engineering & Management"** sponsored by CSIR & DST organized by Department of Mechanical Engineering, Govt. Engineering College Bikaner in 16 Mar 2011.
5. ***“Advances in Material and Manufacturing”*** at the National Seminar organized by Department of Mechanical Engineering, Govt. Engineering College Bikaner in Mar 17, 2012.
6. **"Dynamics and Controls of Mechanical Systems"** organized by department of Mechanical & Industrial Engineering, IIT Roorkee ( Uttarakhand ) 26-30 Dec 2011.
7. 28th National Convention of Production Engineers & National Seminar on **“Advancement in Production and Operation Management”** organized by MNIT
8. Jaipur, on 04-05 May 2013.
9. **“Introduction to Finite Elements Methods with hands on Altair Hyper Works”** TEQIP organized by MNIT jaipur, conducted at department of mechanical engineering, from 03-07 June 2013.
10. **“Plastic Technology” recognized by CIPET-Bhopal** organized by GITS, Udaipur, conducted at Department of Mechanical Engineering, from 16-17 Sept, 2013.
11. TEQIP-phase II recognized **“Technical Writing and its Optimization”** organized by CTAE ,Udaipur , from 30-31 Jan 2014.
12. TEQIP-phase II recognized **“Enhancing Material Properties by Nanotechnology”** organized by Mechanical and Civil Engineering Department (MPUAT), Udaipur, from 07-08 Feb 2014.
13. **“Recent Innovation of Technical Terminology in Engineering”** organized by MHRD, Department of Higher Education, New Delhi ,conducted at BKIT , Kota from 21-22 July 2015.
14. **"Building Quality Entrepreneurs"** organized by GITS, Udaipur on Dec, 08, 2016.
15. **"Demonetization: Impact and Challenges "** organized by by GITS, Udaipur on Jan, 20, 2017.
16. **“ZED (zero Effect Zero Defect) certification for MSMEs “**organized by MSME govt. of India held at UCCI, Udaipur on Mar, 01, 2017.
17. Participated in 33rd National Convention of Mechanical Engineers and National Seminar on “A**dvances in MEMS and Robotics in Manufacturing Industries**” organized by IEI(India) in Sep 1-2 , 2017
18. Participated in a 1day Awareness Programme for I**mplementing Energy Conservation Building Code (ECBC)** organized by Rajasthan Renewable Energy Corporation limited (RRECL), Govt. of Rajasthan in August 2018.
19. Participated in a two day Capacity Building Programme on **“Energy Simulation for Implementing Energy Conservation Building Code (ECBC)**” organized by Rajasthan Energy corporation limited (RRECL), Govt of Rajasthan in October 2018.
20. Participated in 10 days training program on **“Robotics and Industrial Automation”** course at CIT-KUKA Industrial Robotics Training Center, Chennai in June 2018.

**Glimpse of administrative activities**

* Acted as **a** mentor **in** **NPTEL** online course on **“Mechanical Vibration”.**
* **DST Project Coordinator in GITS, Udaipur:**

I have acted as a DST project coordinator and handled the responsibility to send projects proposal of students in Department Of Science and Technology, Jaipur for funding.

* **Academy-Industrial Interaction of students:**

I have contributed significantly in increasing industrial interaction of students by organizing industrial visits (2 times in each semester) to various industries that gave exposures to the students in the field of manufacturing, mechanical design, operations and maintenance.

* **Contribution in Lab Development:**
* Expansion and rebuilding of mechanical central workshop.
* Heat transfer , Fluid mechanics and hydraulic machine lab
* Refrigeration and air-conditioning , CAD lab
* Basic automobile & thermal engineering lab (cut section of various automobile assemblies & parts).
* Automobile Body shop, dainting and painting shop, wheel alignment and balancing shop.
* **In-house Training programmes:**

I have organized the following training programmes -

* Summer training program of 60 days on software training (solid works & ANSYS), welding technologies, wheel alignment and balancing, spray painting shop.
* Training programme on ***CNC: Programming and Manufacturing*** with hands on practice on CNC lathe machine.
* AUTOCAD and solid works for III year (2017-18)
* Auto-Cad for II year (2017-18)
* **Technical Events Coordinator:**

1. **ANUSANDHAN: Theme of Robotics**

Inter-college event under which competition of various robotics event viz Robo-

War, Robo –soccer, Robo race, Robo- hill , Robo -path follower, Robo dirt race.

1. **SANGAM :** Under which National workshops and seminars were organized on “**Recent Developments In Various Field Of Mechanical Engineering”.**
2. National workshop on **“Plastic Technology”** conducted by **CIPET-Bhopal** organized by GITS Udaipur, from 16-17 Sept, 2013.

* **Pre Placement Training:**
* **Coordinator** of **Thermax Training Programme** of 30 students (IV year ME & AE) under the MOU between GITS and Thermax limited.
* Acted as a **Trainer** of programme, covered part of training module on Turbine (Operation, Lubrication), Heat Exchangers (Cooling Towers), Vibration in Machine Components, Balancing & Alignment of Rotor of Turbine and Pumps.
* **Coordinator** of **Thermax Training Programme** of 15 students (IV year ME) under the MOU between Techno India NJR and Thermax limited.
* **Local Center Coordinator:**

Faculty Development Programme through ICT organized by NITTTR (Chandigarh) conducted in Department of Mechanical Engineering, GITS, Udaipur (09)

1. “Induction Training Programme through ICT*”* From 17-21 June 2013.
2. “Environment Engineering And Management” From 03-07 Mar 2014.
3. “Open Source Multimedia Tools” From 27-31 Oct 2014.
4. “Renewable Energy Based Technologies” From 25-29 Aug 2014.
5. “Renewable and Clean Energy Technology” From 13-17 Nov 2017.
6. “Curriculum Development” From 04-08 Dec 2017.
7. “Industrial Automation” From 15-19 Jan 2018.
8. “Modeling and Simulation Using MATLAB” From 22-26 Jan 2018.
9. “Outcome Based Education” from 05-9 Mar 2018.

**Remote Center Coordinator** - **NMEICT, IIT BOMBAY**

1. Organized 2 week FDP (FDP101x) on “Foundation Program in ICT for Education” conducted by IIT Bombay under the aegis of PMMMNMTT, MHRD, GOI in Mar, 2018.
2. Organized 2 week FDP (201x) on “Pedagogy for Online and Blended Teaching Learning Process” conducted by IIT Bombay under the aegis of PMMMNMTT ,MHRD, GOI in May,2018.

* **Co-Curricular Responsibilities:**
* Acted as an inter-college sports coordinator in GITS under the event “GITS IN GAMES” in year 2012-13 and year 2013-14.
* Acted as Chief Warden of student hostels in college campus during year 2005-07.
* Played the role of Mechanical Workshop superintendent in GITS during year 2006-07.

**Personal Details**

**Date of Birth :** 07 May 1977.

**Father’s Name :** Late Mr. Prem Chand Jain

**Marital Status** **:**  Married

**Correspondence address :** Flat No. 402, Sky-A Tower, RSG, The Universe

. Hiran Magri Sector -9, Udaipur 313002

**(VISHNU AGARWAL)**