

Name of Teaching Staff : Prof.Rajnarayan Yadav
 Designation : Assistant professor
 Department : Mechanical Department
 Date of Joining the Institution : 02/07/2012
 Email ID : Rajnarayan.yadav@djsce.ac.in
 Office Contact : 02242335000



Google Scholar Link : <https://scholar.google.com/citations?user=c7HGfMAAAAAAJ&hl=en>
 Researchgate Link: <https://www.researchgate.net/profile/Rajnarayan-Yadav>
 ORCID <https://orcid.org/my-orcid?orcid=0000-0001-9615-284X>
 Publons Researcher ID : <https://publons.com/dashboard/settings/profile/>
 Qualifications with Class / Grade : **PURSUING PhD (IIT-BOMBAY, Aerospace Department)**
 M.Tech (Machine Design) . – IIT-BHU Banaras Hindu University, First Class, May – 2009
 B.E. (Mechanical Engineering), University of Mumbai, First Class, May – 2005.
 Total Experience in Years : Teaching: More than 15 years
 1. Assistant Professor, D.J. Sanghvi College of Engineering from 2.7.2012 till date.
 2. Assistant Professor, PVPP College of Engineering, from Feb' 2012 to Jun' 2012.
 3. Asst. Professor – JSS Academy of Technical Education, from Apr' 2011 to Feb' 2012.
 4. Asst. Professor – ITS Engineering College Gr. Noida, Oct'2009 to Apr' 2010
 Industry: 1 Year
 Engine mates Heat Transfer Ltd., Mulund, from June 2006 to June 2007.
 Papers Published in Journal: :
 [1] “Analysis and manufacturing of aerodynamics components”, in “Lecture Notes in Mechanical Engineering”, Published by Springer Singapore
https://doi.org/10.1007/978-981-15-4485-9_20
 [2] “Comparative study of aluminum and composite stub Axle Using FEA”, in “Lecture Notes in Mechanical Engineering”, Published by Springer Singapore
https://doi.org/10.1007/978-981-15-4485-9_46
 [3] “Design and Analysis of components of a Rotary Car Parking System” in “Lecture Notes in Mechanical Engineering”, Published by Springer Singapore
https://doi.org/10.1007/978-981-15-4485-9_57
 [4] “Predictive Modeling of Delamination Factor and Cutting Forces in the Machining of GFRP Composite Material Using ANN”, in “Lecture Notes in Mechanical Engineering”, Published by Springer Singapore.
<https://doi.org/10.1007/978-981-13-2490-1>
 Papers Presented in Conferences :
 [1] “Structural analysis of Endodontic restorations”, in “Lecture Notes in Mechanical Engineering”, Published by Springer Singapore.
https://doi.org/10.1007/978-981-19-7971-2_63
 Area of Specialization : Finite element analysis, Machine design, Fracture Mechanics, Simulations, Thermo-mechanical analysis, ,MATLAB, PYTHON ,ANSYS

PhD Guide ? Give field & University	:	<u>Field:</u> <u>University:</u>	
PhDs / Projects Guided	:	<u>PhDs:</u> <u>Projects at Masters level:</u>	
Books Published / IPRs / Patents	:		1] “STABILIZER SPINDLE FOR FOUR WHEELERS” Class: 12-16, Design Application. App. No: 324650-001 [2] “FIRE EXTINGUISHING EQUIPPED LIFE-SAVING DRONE “Class: 12-07, Design Application. App. No: 318122-001 [3] “SINGLE STAGE OPEN DIFFERENTIAL (SET) Design No. 378831-001 [4]“GEARBOX CASING FOR ALL TERRAIN VEHICLE” Design No. 320330-001
Professional Memberships	:		SOCIETY OF AUTOMOTIVE ENGINEERS (SAE), THE INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE) INDIAN SOCIETY OF MANUFACTURING ENGINEERS (ISME),
Grants fetched	:	Minor Research Grant (University of Mumbai)	Dr. Vinayak H. Khatawate and Prof. Rajnarayan Yadav - Received University of Mumbai Minor Research Grant (No.APD/ICD/2019-20/762 Dtd. 17th March 2020. Sr. No. 863) of Rs. 40000 during 2019-20, for the project titled “Analysis of Load Bearing Capacity of Endodontic Restorations”.
Interaction with Professional Institutions	:	Guest Lectures: Other Achievements And Responsibilities:	COURSES, FDP, NPTEL AND OTHERS COURSES ATTENDED AND COMPLETED COURSERA COURSES 1. Learning to Teach Online 2. Assessment of Higher education professional development for teachers 3. Mechanics of Materials- I 4. Mechanics of Materials- II 5. Mechanics of Materials- III 6. Mechanics of Materials- IV 7. Solar Basics 8. Quantum Mechanics

FDPS

9. Engineering, Education and Industry Covid -19 prospective.
10. Robotics and Industrial Automation
11. Innovative teaching pedagogy in technical institute.
12. Dynamic response of advance composite.
13. Mechanical Manufacturing and Monitoring Using MATLAB
14. Intellectual Property rights
15. Effective Engineering Teaching In Practice

NPTEL

16. Vibration and Structural Dynamics

OTHER ADVANCE COURSES

17. Mechanics of Advance composite Materials
18. Theory and analysis of Laminate composite and functionally graded Materials
19. Course on software 'Solid works'
20. Computer Aided Machine Drawing

Responsibilities as SAE Faculty in-charge (Still continue)

- I am responsible for Membership drive in every academic year.
- I am involving in process of institute's official SAE team's selection every year.
- I have mentored each and every teams at every stages in their growth and progress.
- I am responsible for organizing Value added program which include Solid Works Software, MATLAB: mechanical Application, German language courses.
- I am arranging industrial visit per for students in every semester.
- I am responsible for arranging funds for various seminar/workshop and keep record of it.
- I used to keep updating NBA committee, NAAC committee, and Academic bulletin committee.

		Responsibilities as SAE Faculty Advisor for DJS KRONOS INDIA (Still continue) • As faculty advisor, I am involving in DJS KRONOS INDIA'S every decision making process. • I am advising the team in design, prototyping, manufacturing, testing stages of Team's vehicle. • I am motivating and encouraging teams to perform better than previous year and they perform outstanding. • I was participated in event of SAE to encourage teams for competition at event venue like SAE BAJACOMPITION, INDORE, and ESI PUNE. • I have motivated teams for international competition and they succeed in first attempt. • Overall DJS KRONOS INDIA perform exceptionally well in national as well as international competition since inception.	
Subjects Taught		<u>UG Level:</u> Engineering Mechanics, Finite Element Analysis, Machine Design, Kinematics of Machine, Computer Aided Machine Drawing, CAD/CAM/CAE, Strength of Materials. Kinematics of Machinery, Dynamics Of Machinery, Mechanics of materials, environment science, Constitution of India, Theory of Machine <u>PG Level:</u>	

Projects Guided	: UG Level: 2012-1018 • Designing and prototyping of a hovercraft floor sweeper. • Designing and Prototyping of a Semi-automated Plastering Machine. • Design of cryogenic tanks for storage of LNG and liquid ethane. • Fabrication of Frictionless brakes based on the principle of Eddy Currents • Design and Modeling of Four Wheel Steering System. • Design and Fabrication of Hybrid Car. • Design and fabrication of vehicle passing control system. • Prototyping of a power generating system using gravity and buoyancy . • Design and Analysis of Pressure Vessels. • Design and manufacturing of a variable pedal ratio brake system for a BAJA vehicle. • Design and fabrication of a cycle with increased load carrying capacity and stability. • Manufacturing work cell optimization: Design, layout and cycle time analysis for productivity improvement. 2019-20 • Design and fabrication of disc braking system with Dual piston floating caliper. • Design and fabrication of a structural balancing system using Gyroscope. • Design and fabrication of Exo-skeleton. 2020-21 • Design and Fabrication of subsonic Wind Tunnel • Design and Applications of Warehouse Management Drone • Design of Vortex Turbine to generate electricity 2021-22 • Design and Manufacturing of Single Stage Open Differential • Design, prototyping and manufacture of a STEM toy aimed at introducing automation to children 2022-23 • Design and fabrication of a multipurpose prototype for an all terrain vehicle • Design and Fabrication of a Mechanical Ventilator 2023-24 • Design of future mobility concept • Thermo-mechanical analysis of composite tank for cryogenic application • Design and development of an Automated forklift 2024-2025 • Prototyping of habitat for extra-terrestrial environment PG Level: N/A				
Recommended Students for Higher Education	<table border="1"> <thead> <tr> <th data-bbox="480 1839 703 1906"><u>Name of the Student</u></th> <th data-bbox="703 1839 1522 1906"><u>University/Industry</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="480 1906 703 2009">200+ STUDENTS</td> <td data-bbox="703 1906 1522 2009">VARIOUS INDIAN INSTITUTE LIKE IIM-A, IIT-B, XLRI, VARIOUS UNIVERSITIES OF USA, GERMANY, CANADA.</td> </tr> </tbody> </table>	<u>Name of the Student</u>	<u>University/Industry</u>	200+ STUDENTS	VARIOUS INDIAN INSTITUTE LIKE IIM-A, IIT-B, XLRI, VARIOUS UNIVERSITIES OF USA, GERMANY, CANADA.
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Institute/Department Responsibility handled:	Institutional Level: • Faculty in-charge for Society of Automotive Engineers (SAE) student chapter • Admission committee • NBA Co-ordinator (Institute level Criteria 9 and 10) Department Level: • Class in-charge • Timetable Co-ordinator • Faculty advisor for Official All-Terrain Vehicle (ATV) team DJS KRONOS INDIA. • Member of NBA Committee • Member of NAAC Committee criteria 5 • Mentoring system • Member of Master of Engineering/M-Tech syllabus committee • Mechanical department brochure preparation for admission and presentation.
Pedagogy Development	