

SANGRAM SHIVAJIRAO BHOSALE

E-Mail: profsangram@urownteacher.com



Dynamic educator and entrepreneur with a strong foundation in mechanical design, training, and academic leadership. Co-founder of *Vector Academy* (www.vector-academy.org), a premier institute for engineering entrance coaching, and founding member of *Urownteacher* (www.urownteacher.com), a consultancy specializing in mechanical design solutions and industry-relevant training. Also spearheading *Earth-Care Enterprise*, a sustainability-driven venture focused on manufacturing plastic recycling shredders. Passionate about bridging academic rigor with real-world application through innovative teaching and mentorship.

INDUSTRIAL WORK EXPERIENCE

Engineering Analyst (Aug. 2014 - Sept. 16)

Worked as a Engineering Analyst (Aug. 2014 - Sept. 16) at Oceaneering International Services Ltd, Chandigarh, India; An oil field provider of engineered services and products, primarily to the offshore oil and gas industry.

Engineering Consultant (Sept. 16 onwards)

Experienced Engineering Product Developer and Consultant, specializing in the design and development of innovative products. Successfully developed plastic recycling machines for government institutions and a modern cleaning cart for the Dubai Municipal Corporation.

TEACHING EXPERIENCE

Lecturer (Feb. 2012 - May 2012)

Worked as a Lecturer in Abhaysinhraje Bhonsle Institute of Technology, Satara (Feb. 2012 - May 2012) for Mechanical Engineering subjects such as strength of materials, mathematics and engineering mechanics.

Assistant Professor (Sept 16- May 17)

Worked as an Assistant Professor in Dnyanshree Institute of Engineering Technology, Satara, (Sept. 16- May 17). Subjects taught: Finite Element Analysis, Theory of Machine, Noise & Vibration, Industrial Product Design. Also organized MATLAB workshop, Robotics workshop, Communication skill sessions for BE Mechanical Students

Online Training/Teaching (May 17 onwards)

Worked as online teacher for following subjects,

- Economical Engineering and Project Planning: BMC Batch Chanakya Mandal (Lectures available on YouTube)
- Basics of MATLAB and practical applications- DIET, Satara
- Finite element Simulations (ANSYS/ABAQUS)

International Work: Individual or group online sessions are conducted for the following subjects:

- Calculus (MAT291H1F)- Department of Mathematics, University of Toronto
- Advance Engineering Mathematics (MAT290H1F)- Department of Mathematics, University of Toronto
- Advance Fluid Dynamics- University of Sydney
- Basic Mechanical Engineering- University of Queensland
- Engineering Economics- Kuwait University
- Additive Manufacturing-
- Advance Dynamics- London University
- Project Planning and Management- UAEU
- Finite Element Analysis- RWTHAACHEN University, Germany
- Practical Introduction to FEM Software- RWTHAACHEN University, Germany
- Vector Mechanics- Columbia university, NY
- Advance Dynamics- Columbia university, NY

EDUCATIONAL QUALIFICATION

Course	Institution	University	Year	Class/CGPA
PhD	VPKBIET, Baramati	SPPU, Pune	2025-Till	Pursuing
MTech (Design)	IIT Delhi	IIT Delhi	2014	8/10
B.E. (Mech.)	VPCOE, Baramati	SPPU, Pune	2011	Distinction
HSC	YCIS, Satara	MSBE	2007	Distinction
SSC	Saraswati High School, Koregaon	MSBE	2005	Distinction

ACADEMIC PROJECTS

- **Product Design I: Coconut Picking Robotic arm (Prototype) (Aug. 2012 – Dec. 2012) :**
Designed robotic arm to avoid the problem of unavailability of labors and to minimize the risk included in this job of picking the coconut from 30-60 feet high tree.
- **Product Design II: Feasibility of DRUSHTI (Aug. 2012 – Dec. 2012):**
DRUSHTI is the stick with audible GPS and sensors for visually impaired people. Prepared feasibility report with Prefeasibility, Marketing, Technical & Financial analysis.
- **M.Tech Thesis: Design, Analysis and Development of Groundnut Harvester (Sept.2013-Aug. 2014)**
Based on the field survey and considering needs of small scale Indian farmers Groundnut Harvester is modeled in Catia V5. Finite element analysis as well as Convergence study is carried out to ensure strength of the rotor in ABAQUS.

- **Advance FEM: Analysis of Bicycle Frame using MATLAB (Aug. 2013 – Dec. 2013)**
Bicycle frame is analyzed for nonlinear static and dynamic case. Analysis code has been verified by ABAQUS results.

ACADEMIC & EXTRA CURRICULAR ACHIEVEMENTS

- "Best Teacher of the year - 2018 " Mechanical Engineering Dept. (DSPS)
- "Best Employee – 2015", Oceaneering International, Chandigarh
- Won Best Project award 2014 for M.Tech. Project, in Open House 2014 at IIT Delhi
- GATE 2012 percentile 99.45 (AIR: 609) in Mechanical Engineering, H R D Scholarship: Received MHRD, Government of India scholarship for throughout two years in IIT Delhi
- Project Presentation in OPEN HOUSE 2013: Led the team of 'Groundnut Harvester Machine' in I²Tech 2013.
- ACMFMS-2012: Volunteered as Session Manager in Third Asian Conference of Functional Materials & Structures held in IIT, Delhi.
- Piping Engineering Course 2011: Accomplished Piping engineering course conducted by Chemical Engineering Cell, IIT BOMBAY.
- Virtual BAJA SAE INDIA 2010-2011 Competition: Led 'Braking System' division of team EXCEED.

PROJECTS HANDLED IN SANALYSTS

- ♦ **Design & Development Self-propelled Onion Harvester**
Guided Project "Design & Development Self-propelled Onion Harvester" which was recognized as Second Runner-up in National Level Competition (TIFAN) organized by SAE.
- ♦ **Development of Unmanned Arial Vehicle for spray painting and agricultural pesticide spraying**
Designed, analyzed and developed a hexacopter which can spray pesticides as well as which can be used in spray painting high altitude buildings.
- ♦ **Design and development of Modern Cleaning cart**
Design, optimization of modern cleaning cart is carried out for Dubai Municipal Corporation. Existing weight and design optimized as well as few additions such as cooling chamber, fan is added to ease life of the handling labor.

PROJECTS HANDLED IN OCEANEERING INTERNATIONAL

- ♦ **Bend Limiter analysis for Apache-Julimar Corporation and British Petroleum**
Finite Element Analysis of bend limiter is carried out in ANSYS Workbench and modified the component to minimize higher order stresses as per API 17L2.
- ♦ **Armor pot analysis for Oceaneering SDS-Niterói and Shell**
Non-linear structural analysis is performed to check the structural integrity of the armor pot under maximum umbilical operational load. Limiting tri-axial strain calculations done as per ASME BVPC Section VIII Division 2 and ISO 13628-7:2005.

◆ **Umbilical Distribution System Lifting Analysis for Oceaneering SDS- Houston**

UDS is analyzed in Ansys APDL for lifting case as per DNV 2.7-3. Pad-eye design and calculations are done as per DNV 2.7-3

◆ **Kizomba Mondo Topside Hardware Fatigue Analysis**

Fatigue analysis of the topside hardware is carried out as per BS 7608 and DNV RP C203. Topside hardware is analyzed in Ansys Workbench for static case.

◆ **Umbilical Distribution System Lifting Analysis for Oceaneering Umbilical Solutions**

UDS is analyzed in Ansys APDL for lifting case as per DNV 2.7-3

◆ **Drop Object Test on Armor Termination for BP (British Petroleum) Shah Deniz 2**

Explicit dynamic analysis of armor termination is carried out in LS-Dyna.

TECHNICAL SKILLS

Packages:

- **Analysis :** ANSYS Workbench, LS-Dyna, ABAQUS, Pro-Cast, ADAMS
- **Modeling:** Catia V5, HyperMesh, CREO, SolidWorks, AutoCAD
- **Other :** MathCAD, MS Office

Languages: MATLAB, APDL, Basic knowledge of C, C++

Project Consultant / Trainer for:

- Finite element analysis tools (ANSYS, ABAQUS, HyperMesh, CREO) with hands-on projects
- 3D modeling tools (CATIA, SOLIDWORKS, AUTOCAD)
- Introduction to MATLAB (Optimization codes, Looping system)
- Product design, analysis and development rules
- Implicit/explicit Analysis methods and applications (LS-dyna, ADAMS)

PERSONAL PROFILE

Name	:	Sangram S. Bhosale
Languages Known	:	English, Hindi and Marathi
Nationality	:	Indian