| Sl. No. | Lab Name | Purpose & Practical Work | Special Highlights | Lab In-charge |
|------------|---|--|--|--|
| 1. | Water and Wastewater Engineering | The Water and Wastewater Laboratory is dedicated to analyzing the quality of water and wastewater through various physical, chemical, and biological tests. It helps U.G, P.G students and researchers | Total Carbon and Nitrogen Analyzer, Ion Chromatograph, | Dr. Sameer U. Sayyad |
| | Laboratory | understand water treatment processes and environmental regulations. It also serves as a vital facility for testing and analysis of water quality parameters, offering consultancy services for industries, municipalities, and government bodies. | Photocatalytic Reactor Experimental Setup, Forward Osmosis Treatment Unit | Mrs. Amruta M. Mangrulkar |
| 2. | Air Pollution Laboratory | The Air Pollution Laboratory is equipped to monitor and analyze air quality parameters such as particulate matter and gaseous pollutants. It supports U.G, P.G students and research in air pollution control and environmental impact assessment. It also supports consultancy services for industries, construction projects, and urban authorities/Government bodies | Stack Air Emission Monitoring Kit, Particulate Matter Analyser for Air Pollution Monitoring, Noise Level Testing Kit | Dr. Vikas B. Varekar |
| 3. | Survey Laboratory | The Survey Laboratory is designed to train students in the use of modern surveying instruments such as total stations, GPS, and digital levels. It facilitates practical learning of land measurement, mapping, and construction layout techniques. The lab supports both academic coursework and field-based consultancy services for land surveying, topographical mapping, and layout work for in geospatial and infrastructure projects. | Advanced Total Station, Differential Global Positioning System, Laser Distance Meter, Digital Planimeter | Dr. S.Y. Mhaske Mr. Chetan R. Bhole |
| 4. | Transportation Engineering Laboratory | The Transportation Engineering Laboratory is equipped for testing materials like bitumen, aggregates, and asphalt mixes used in road construction. It supports academic learning and research in pavement design and traffic engineering. The lab also provides consultancy services for quality assessment, pavement evaluation, and material testing to government agencies and private sector projects. | Dynamic Cone Penetration Test, All test related to Aggregates, Bitumen, pavement, Ultrasonic Pulse velocity Meter, Rebound hammer, Pan Concrete Mixer, Asphalt Mixer, Compressive testing machine. | Dr. A. S. Wayal Mr. Chetan R. Bhole |
| 5. | Applied Hydraulics Laboratory | The Applied Hydraulics Laboratory is equipped to study fluid mechanics and hydraulic phenomena through experiments on flow | Open Channel Flow Setup, Wind Tunnel | Mr. P. S. Chaudhari |

| | | measurement, open channel flow, and hydraulic machines. It aids in academic instruction and research in water resources engineering. The lab also offers consultancy services in areas such as hydraulic modeling, flow analysis, and design verification for water infrastructure projects. | Experimental Setup, Electromagnetic Flowmeter, Ultrasonic Position Meter, Mild Steel Bernaullis Apparatus | Mrs. Amruta M. Mangrulkar |
|----|-------------------------------|---|---|---------------------------------------|
| 6. | UG and PG computer Laboratory | The UG and PG Computer Laboratories support computational learning and research by providing access to software tools for | Primavera, AIRMOD, Bentely PLAXIS | Dr. C. D. Wagh |
| | (Civil) | Building design, GIS, remote sensing, and project management. These labs facilitate hands-on experience in modeling, simulation, | Geotechnical Analysis Software, Systat, | Dr. S. S. Surapreddi |
| | | and data analysis for undergraduate and postgraduate students. | ArcGIS-01, Breeze -7.6 | Surapredui |
| | | They also support academic projects, thesis work. | , | |
| 7. | Project Laboratory | The Project Laboratory in the Civil and Environmental Engineering Department at VJTI provides a dedicated space for students to carry out their undergraduate and postgraduate research and design projects. It is equipped with essential tools, instruments, and facilities to serves as a hub for student-driven research, prototypes, and project work. | | Dr. A. S. Wayal |
| 8. | Geology Laboratory | The Geology Laboratory provides essential training in rock and soil characterization, mineral identification, and subsurface investigation techniques using tools like petrographic microscopes, sample testing equipment, and core logging systems. It supports | | Dr. N. N. Oke Mrs. Shweta A. Sagole |
| | | both academic instruction and research in geotechnical and geological engineering. | | |

Lab:- Water and Wastewater Engineering Laboratory

Lab Incharge:- Dr. Sayyad Sameer U

List of Equipments available: -

| Sl. No. | Name of Equipment |
|---------|--|
| 1 | Total Carbon and Nitrogen Analyzer |
| 2 | Ion Chromatograph |
| 3 | Ultrapure Water Distillation Setup |
| 4 | Vertical Laminar Air Flow Setup |
| 5 | Forward Osmosis Experiments Setup |
| 6 | Photocatalytic Reactor Experimental Setup |
| 7 | Ozone Generator Experimental Setup |
| 8 | Dessicator and Vacuum setup |
| 9 | Electroconductive moving Bed membrane Bioreactor Test Skid |
| 10 | Mini Qwater Purification System |
| 11 | Muffle Furnace Size 30 x 15 x 15 |
| 12 | Ravel Aluminium Peristaltic Pump |
| 13 | Prizm Abs UV-VIS Spectrophotometer |
| 14 | Quasiseal Ultrasonic cleaner, Quasiseal Vertical Autoclave - Fully Automatic |
| 15 | Metrohm 913 pH meter, Metrohm 912 Conductivity meter |
| 16 | RQG - 121/D Remi Make Stirrer |
| 17 | RS - 12R Remi Mini Rotary Shaker 2iKS - 37081 |
| 18 | RRFD 250 Remi Refrigerator Cum Freezer |
| 19 | Jar Test Apparatus |
| 20 | Silt Density Index Kit, Booster Pump |
| 21 | Digital COD Digester complete set |
| 22 | Conductivity Meter waterproof salinity Handheld meter kit |
| 23 | Peristaltic Pump Model RH-1005-100pc with 2 mtrs 5mm 1D silicon tubing |
| 24 | Vacuum Filtration Unit |
| 25 | Pocket Colorimeter, Portable PH/DRP meter |

Safety measures: First Aid, Aprons, Safety goggles, Hand gloves, Protective Mask, Fire extinguishers, CCTV surveillance

Pictures to be displayed:-

Entire Lab:-



Additional pics of Equipments to be displayed:-

1. Total Carbon and Nitrogen Analyzer



2. Ion Chromatograph



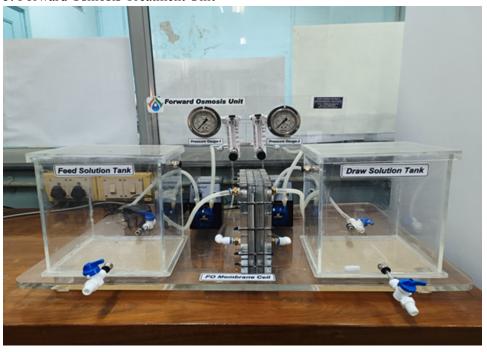
3. Ultrapure Water Distillation Setup



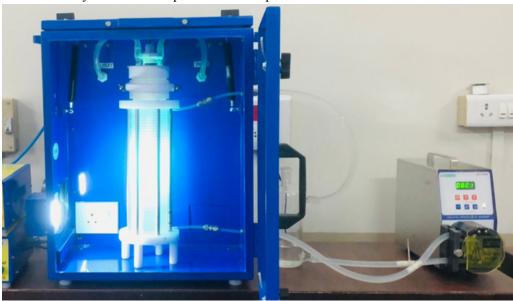
4. Laminar Air Flow Setup



5. Forward Osmosis Treatment Unit



6. Photocatalytic Reactor Experimental Setup



7. Ozone Generator Experimental Setup



Air Pollution Laboratory:

Lab Incharge:- Dr. Varekar Vikas B.

List of Equipments available:-

| Sl. No. | Name of Equipment |
|------------|--|
| 1 | Noise Level Testing Kit |
| 2 | Respirable Dust Sampler PM10 |
| 3 | Stack Air Emission Monitoring Kit |
| 4 | Respirable Dust Sampler PM2.5 |
| 5 | High Volume Sampler APM 460, Gaseous Sampling Attachment |
| 6 | Toshniwal Portable/ Benchtop Multiparameter Instrument, Ohausmate Portable Balance, Flame Photometer |
| 7 | BOD Incubator, Portable DO meter, Oven |

Safety measures: First Aid, Aprons, Safety goggles, Hand gloves, Protective Mask, Fire extinguishers, CCTV surveillance

Pictures to be displayed:-

Entire Lab:-

Picture of Entire lab to be included

1. Noise Level Testing Kit



2. Stack Air Emission Monitoring Kit



3. Particulate Matter Analyser for Air Pollution Monitoring



Survey Laboratory

Lab Incharge:- Dr. Mhaske S.Y.

List of Equipments available:-

| Sl. No. | Name of Equipment |
|---------|---|
| 1 | Laser Based Electronic total station |
| 2 | Differential Global Positioning System |
| 3 | Digital Planimeter KP-90N |
| 4 | VERNIER THEODOLITE |
| 5 | Bosch G/m 100 Laser Distance Meter |
| 6 | Digital Level DL - 202 |
| 7 | Electronic Digital Theodolite angle measure accuracy 2 degree |
| 8 | Digital Planimeter |

Safety measures: First Aid, Fire extinguishers, CCTV surveillance

Pictures to be displayed:-



1. Advanced Total Station



2. Differential Global Positioning System



Applied Hydraulics Laboratory

Lab Incharge:- Prof. Chaudhari P.S.

List of Equipment's available:-

| Sl. No. | Name of Equipment |
|---------|--|
| 1 | Open Channel Flow Setup |
| 2 | Wind Tunnel Experimental Setup |
| 3 | Electromagnetic Flowmeter |
| 4 | Ultrasonic Position Meter |
| 5 | Mild Steel Bernaullis Theorem Apparatus |
| 6 | Orificemeter Apparatus (Model: OE-FM-111B) |
| 7 | Losses in Pipe Fittings Apparatus (Model: OE-FM- 109A) |
| 8 | Pipe Friction Apparatus (Model: OE-FM-103A) |
| 9 | Orifice & Mouthpiece Apparatus (Model: OE-FM-101A) |
| 10 | Metacentric Height Apparatus (GME- 7247) |
| 11 | BMCO PP Body MAterial Ultrasonic Level Transmitter (Model: BI-A-5) |
| 12 | Venturimeter Apparatus |
| 13 | Mild Steel Notch Apparatus |
| 14 | Orifice & Mouthpiece Apparatus |
| 15 | Pressure & Flow Measurement |
| 16 | Reynold Apparatus |
| 17 | Tilting Flume with MS Tank |

Safety measures: First Aid, Fire extinguishers, CCTV surveillance

Pictures to be displayed:-

Entire Lab:-



1. Open Channel Flow Setup



2. Wind Tunnel Experimental Setup



3. Electromagnetic Flow Meter



4. Ultrasonic Position Meter





Transportation Engineering Laboratory

Lab Incharge:- Dr. A. S. Wayal

List of Equipment's available:-

| Sl. No. | Name of Equipment |
|------------|---|
| 1 | Dynamic Cone Penetration Test apparatus |
| 2. | All test related to Aggregates: Impact, Abrasion, Shape, Specific gravity, Water absorption, Crushing, Sieve Analysis, Fineness |
| 3 | Bitumen Extractor, Bitumen Ductility Test Apparatus, Softening Point Apparatus |
| 4 | Automatic single compactor |
| 5 | RCPT test 3 cell |
| 6 | Los Angeles Abrasion testing machine Apparatus |
| 7 | Pan Concrete Mixer |
| 8 | Water bath oven, Hot air oven |
| 9 | Manual speed Radar gun,SR 10 |
| 10 | Ultrasonic Pulse velocity Meter, Rebound hammer |
| 11 | Asphalt Mixer |
| 12 | Multichannel Analysis Surface wave |
| 13 | Automatic Compactor |
| 14 | Wheel /Rut Testor equipment |
| 15 | Thermal Image Infrared camera |
| 16 | Bitumen content centrifugal extractor with electric motor |
| 17 | Marshal Stability Apparatus |
| 18 | Field California Bearing Ratio test apparatus |
| 19 | Laboratory California Bearing Ratio test apparatus |
| 20 | Plate Bearing test apparatus |
| 21 | Buoyancy Balance |
| 22 | Modified Roughness indicating machine-merlin |

Safety measures: First Aid, Hand gloves, Fire extinguishers, CCTV surveillance

Pictures to be displayed:-



Pictures of Advanced equipment/ recently purchased equipment to be included.

UG and PG computer Laboratory (Civil)

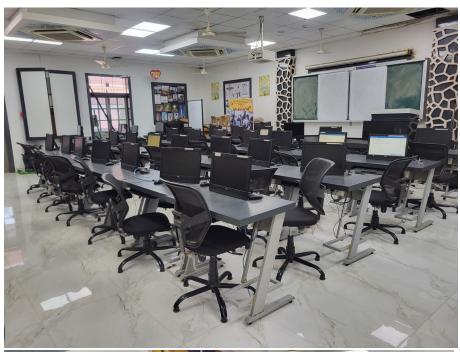
List of Equipments available:-

Lab Incharge:- U. G. Computer lab- Dr. S. S. Surapreddi P. G. Computer lab- Dr. C. D. Wagh

| Sl. No. | Name of Equipment | |
|---------|---|--|
| 1. | 15 no. of all in one PCs with configuration ranging upto i5 13th generation | |
| 2. | 30 no. of all in one PCs with configuration ranging upto i5 8th generation | |
| 3. | Epson Projector, presentation podium | |
| | | |
| Sl. No. | Name of Software available | |
| 1 | Primavera | |
| 2. | AIRMOD | |
| 3 | Bentely PLAXIS Geotechnical Analysis Software | |
| 4 | Systat | |
| 5 | ArcGIS-01 | |
| 6 | Breeze -7.6 | |
| 7 | EPA-Net | |
| 8 | Loop and Branch | |
| 9 | Sewer CAD | |
| 10 | Bentley Software for Civil engineering applications as Water Hammer, Water Gem and GIS mapping etc. | |

Safety measures: Safety measures: First Aid, Fire extinguishers, Smoke detection system, Fire alarm, CCTV surveillance

Pictures to be displayed:-





Project Laboratory

Lab Incharge:- Dr. A. S. Wayal

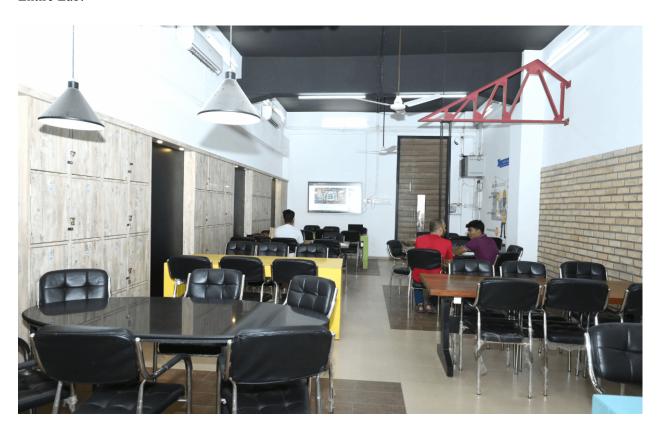
Equipped with Internet Facility, Digital interactive board.

Project Laboratory is provided with 18 number of internet connections and seating arrangement for project work, computer facilities, internet connections with access to e-journals such as ASCE, Springer link, Science Direct and Digital Engineering Library along with a digital interactive board.

Students utilizing project lab as well as other labs according to their project related topics for research work

Safety measures: Smoke detection system, Fire alarm, CCTV surveillance, Fire extinguishers

Pictures to be displayed:-



Geology Laboratory

Lab Incharge:- Dr. N. N. Oke

Safety measures: CCTV surveillance, Fire extinguishers

Pictures to be displayed:-



