



**VINAYAKA MISSION'S
RESEARCH FOUNDATION**
(Deemed to be University under section 3 of the UGC Act 1956)



**VINAYAKA MISSION'S KIRUPANANDA
VARIYAR ENGINEERING
COLLEGE**

CONSULTANCY SERVICES BROCHURE



VINAYAKA MISSION'S KIRUPANANDA VARIYAR ENGINEERING COLLEGE

A UNIT OF VINAYAKA MISSION'S RESEARCH FOUNDATION
(Deemed to Be University)

Sankari Main Road (NH-47), Periya Seeragapadi,
Salem - 636 308, Tamil Nadu, India

Email: principal.vmkvec@vmu.edu.in,

Website: <https://vmkvec.ac.in/>

ABOUT THE UNIVERSITY

Vinayaka Missions Research Foundation (VMRF) is a pioneering and vibrant university offering a multi-cultural experience with an ambience marked by the perfect harmony of living in diversity. The university is committed to offering education in the most professional manner and one that ensures enormous growth potential to the students. One of the biggest universities in India, VMRF boasts of the most diversified education in terms of the number of faculties, ranging from Medicine, Health Sciences, Engineering and Technology to Management - almost the entire gamut of academic disciplines. The University main campus in Salem is truly a scenic marvel surrounded by mountains and a hallmark of the city.



ABOUT THE COLLEGE

Vinayaka Mission's Kirupananda Variyar Engineering College is an initiated educational background, aimed to provide quality education to aspiring technocrats in various fields of Engineering & Technology approved by AICTE, New Delhi and placed in NIRF Innovation category - 2023 in the band of 101-150. Started way back in 1987 with 3 branches initially affiliated to the University of Madras, Periyar University, and later to Anna University. In the year 2004, VMKVEC came under the ambit of Vinayaka Mission's Research Foundation (Deemed to be University) which is accredited by NAAC with A grade and placed in NIRF Ranking University category - 2023 in the band of 151 - 200. At present, the institution offers 10 UG Programmes and 9 PG Programmes including MBA under various specializations offering higher education in Engineering, Technology & Management to more than 2000 students. The college was started with various disciplines and departments to cater the students with experienced and dedicated teaching professionals. The institution has well equipped sophisticated instruments in the different departments. The departments have separate specialized equipments to carry out the day to day research activities in academic and R&D level.

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8	Pharmaceutical Engineering
9	Physics
10	Chemistry
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DEPARTMENT OF BIOMEDICAL ENGINEERING

About the Department

The Department initiated in 2004 with active Clinical Partnership with Vinayaka Mission's Kirupananda Variyar Medical College & Hospitals (VMKVMCH), Salem. Also providing the Excellent Hands-on training through Latest Technology Equipments (like as CT scan, MRI Scan, Ventilator, Ultrasound, CATHLAB, Medical Devices and many Medical equipments).

Area of Consultancy Services:

- Testing and calibration of all Biomedical equipments

Contact Details

Institution Address : Head of the Department,
Department of Biomedical Engineering,
Sankari Main Road (NH-47), Periya Seeragapadi,
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DEPARTMENT OF BIOTECHNOLOGY

About the Department

The Department of Biotechnology was established in the year 2005. The department has sophisticated laboratories and actively involved in carrying out research work with well qualified and experienced faculty members. The Department organizes various National Seminars/Symposiums/Conferences/ Workshops and Guest lecturers funded by Department of Biotechnology (DBT), Council of Scientific and Industrial Research (CSIR), National Bank for Agriculture and Rural Development (NABARD) & The Institution of Engineers (India) Salem Local Centre, Salem. The department received grants for research project from various Government agencies such as Department of Science & Technology (DST), Tamil Nadu State Council for Science and Technology (TNSCST), Ministry of Micro, Small and Medium Enterprises (MSME), Government of India and IISc- MSME Centre of Excellence, Bangalore and Biotechnology Industry Research Assistance Council –Society for Research and Initiatives for Sustainable Technologies and Institutions (BIRAC-SRISTI). Students Participate in various scientific meets including Regional Convention- AICTE - Chhatra Vishwakarma Awards, Mahatma Gandhi National Council of Rural Education, Government of India, Entrepreneurship development program etc and received many prizes and awards.

Areas of Consultancy Services:

- Quantitative analysis of pharmaceutical substances
- Molecular weight determination
- Concentration of solutions and suspensions
- Solvent distillation and recycling
- Chemical synthesis
- Enzyme production
- Isolation of primary and secondary metabolites
- Structural elucidation of organic compounds
- Qualitative analysis
- Dissociation constants of acids and bases
- Chemical kinetics

Contact Details

Institution Address : Head of the Department,
Department of Biotechnology,
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LIST OF EQUIPMENTS



UV-VISIBLE SPECTROPHOTOMETER

Specifications: Model (V 750), Wavelength range: 190 to 900 nm Wavelength accuracy: +/-0.2 nm (at 656.1 nm)

ROTARY VACUUM EVAPORATOR DIAGONAL WITH OIL FREE PUMP

Specifications: Rotary vacuum evaporator employ rotational speed of up to 280rpm with vacuum conditions of < 1 mm Hg to vaporize, condense, and ultimately distill solvents. Rotary evaporators can accommodate samples sizes of up to 1 litre.



HYGENE FERMENTOR

Specifications: 3 Liter total volume, 2.5L maximum and 1L minimum working volume

DEPARTMENT OF CIVIL ENGINEERING

About the Department

The Department of Civil Engineering under VMKV Engineering College was established as an individual Branch/Department during the academic year 2004-05, under the Vinayaka Missions Research Foundation (Deemed to be University), Salem. The Department of Civil Engineering pulls out all stops to create outstanding engineers with advanced teaching techniques and learning aids for undergraduate students. Students are not only made experts in technical aspects but also in interpersonal skills, a vital ingredient to excel in the fast-paced world.

Our state-of-the-art facilities provide students with an immersive learning environment. From well-equipped laboratories to modern classrooms, we ensure our students have the tools they need to succeed. Meet our dedicated faculty members – experts in the fields of Structural, Geotechnical, Environmental Engineering, committed for guiding and inspiring our students.

Areas of Consultancy Services:

Design & Detailing

- Feasibility Study, Preliminary Design.
- Detailed Structural Design.
- Hydraulic Design, Geo- Environmental Design.
- Transportation Planning, Rebar Detailing.
- Regulatory Compliance, Construction Support.

Material Characteristic Analysis

- Quality Control Compliance with Standards: Types of Tests: Soil; Water; Concrete; Brick; Aggregate; Steel.
- Laboratory / Field & Non-destructive Testing (NDT).
- Data Analysis & Reporting, Construction Monitoring.

Contact Details

Institution Address : Head of the Department,
Department of Civil Engineering,
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

About the Department

Started in the year 1987, Computer Science and Engineering department offering both UG and PG programme with a team of qualified and experienced faculty members enriched with industrial and research background. This department has offered UG Program in the emerging area of Artificial Intelligence and Data Science from the academic year 2020-2021. The department is also recognized for conducting full-time and part-time PhD programme. This department has received grants from IEDC and MSME for various innovative projects. The laboratories of the department are well equipped with more than 500 systems with high-end configuration and round-the-clock Internet & Wi-Fi facility. The department has established a well defined infrastructure for Artificial Intelligence and High Performance Edge Computing with industry support and MoU with INTEL - FICE Bangalore. HP Procure lab, Amitysoft Testing Lab, Amritha Virtual lab, ICT tools and NPTEL Educentre are other value added facilities available in the department for educating the students.

Areas of Consultancy Services:

- Design and development of machine learning model
- Developing mobile application
- Training for Domestic Data Entry Operator
- Consultancy services for Computer Networking
- Training for Hardware Installation and Trouble shooting
- Developing e-learning content for school education
- Providing Corporate Training in emerging area like Artificial Intelligence, Machine Learning, IoT etc.

Contact Details

Institution Address : Head of the Department,
Department of Computer Science Engineering,
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

About the Department

The Department of Electronics and Communication Engineering was established in the year 1987. Programmes offered are B.E-ECE. The Department has outstanding Laboratory facilities include IC Nanometer Design with Tanner suit, Design Verification and Test Catapult with Synthesis, Matlab, Fixed and Floating point Digital Signal Processors, Renesas R8C Microcontroller Development kit, Microprocessors and Microcontrollers (8051, ARM 7), VLSI Lab (Spartan 8, Nexys A7 50T, Genesys 2 - Kintex 7 kit, Zybo Z20 with SDSoc), Microwave and Optical Communication Lab, Embedded systems Lab. In addition to that the Texas Instruments has sponsored embedded systems design components which provide insight to the students on 16 bit RISC Architecture using MSP430 Microcontrollers. The department has experienced faculty members with PhDs and publications in National/International journals. The department has the privilege of having completed many Research & Development (R&D) Grants from various Government and Non Government agencies like Institution of Engineers (IE)-Kolkata, National Science and Technology Entrepreneurship Development Board (NSTEDB)-New Delhi , Institute of Electrical and Electronics Engineers(IEEE) - Madras Section , Micro Small Medium Enterprises(MSME)-New Delhi-Centre of Excellence -Indian Institute of Science(MSME-CoE-IISc)-Bangalore, and All India Council for Technical Education(AICTE) sponsored grant-in-aid under the scheme for Modernize and Removal of Obsolescence (MODROB),New Delhi for modernizing the VLSI Design Lab.

Areas Of Consultancy Services:

- Amplifier & Speakers servicing.
- Customized solutions for enhanced sound quality and longevity.
- Upgrading of Audio, Projector, and DJ Light servicing.
- Servicing solutions for power supply unit, CRO, Function generator etc.
- Upgrading of Laboratory Circuits and PCP Board Assembly services.
- Precision assembly for cutting-edge electronic applications.
- Transform your space with expertly serviced lighting solutions.
- Illuminate the future with our comprehensive LED Light services.
- Stay at the forefront of lighting technology with expert guidance

Contact Details

Institution Address : Head of the Department,
Department of Electronics and
Communication Engineering,
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Mobile : 9443290138

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

About the Department

The Department of Electrical and Electronics Engineering has been playing a vital role in producing scientists and technologists of highest caliber ever since it was established in the year 1995. The department runs one under graduate programme and one post-graduate programme to cater to the ever-challenging needs of technical excellence in all areas of electrical engineering such as Integrated electronics and circuits, Tele-communications, Computer technology, Control & Automation, Power systems & Power Electronics. The Association of Electrical and Electronics Engineers (**AEEE**) of the department was inaugurated on 25th September, 2006.

In addition to the strong undergraduate programs, the department has been playing a pioneering role in producing world class postgraduates and research scholars. The infrastructure and lab facilities are upgraded from time to time and provide adequate opportunities for students and researchers to learn and innovate. The department has distinguished faculty, and most of the faculties are pursuing Ph.D. There are five Fellows of IEEE in the department and many other faculty members are Fellows of several National and International scientific bodies. The faculty of the department has been constantly carrying out research on many cutting-edge technologies and regularly publishing in National Journals and other top International journals. The department also undertakes many research projects sponsored by both the government and the industry.

Areas of Consultancy Services

1. Testing of Solar cell and Panel through Solar PV Training and Research System.
2. Power factor improvements for Industry and Irrigation sector.
3. Testing of batteries Solar PV Grid tied Training System
4. Calibration of Electrical Instruments.

Contact Details

Institution Address : Head of the Department,
Department of Electrical and
Electronics Engineering,
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LIST OF EQUIPMENTS



Solar PV Training and Research System



Solar PV Grid tied Training System



Battery Testing Kit



Workstation

DEPARTMENT OF MECHANICAL ENGINEERING

About the Department

The Department of Mechanical Engineering is dedicated to advancing machinery and manufacturing processes for increased efficiency and effectiveness. Our department provides technological and professional advice through consultancy services to support research and development projects in academia and industry. In addition we offer hands on training to both students and researchers to equip them with the necessary skills and knowledge.

Areas of Consultancy Services

- Material Characterization by using Metallurgical Optical Microscope
- Corrosion Testing by using Salt Spray Corrosion Chamber
- Fabrication of Metal Matrix Composites by using Stir Casting Furnace
- Joint Certification Training by VMKVEC- BOSCH Joint Training center
- Testing of Alternate fuels by using Variable Compression Ratio (VCR) Engine with Eddy Current Loading With Data Acquisitions Systems and Emission Testing

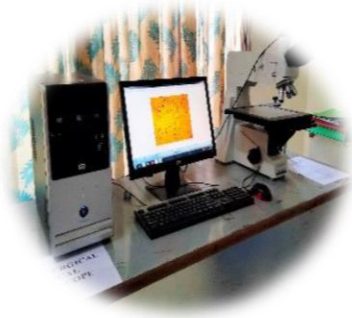
Contact Details

Institution Address : Head of the Department,
Department of Mechanical Engineering,
Sankari Main Road (NH-47), Periya Seeragapadi,
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LIST OF EQUIPMENTS



Metallurgical Optical
Microscope with data
acquisition system



Salt Spray Corrosion
Chamber



Stir Casting Furnace



BOSCH - Auto Electrical
Systems



BOSCH - Auto Electrical
Systems



BOSCH - Vehicle
Diagnostics Basis



BOSCH - Vehicle Air
Conditioning Systems



VCR Engine with data
acquisition system



Five Gas Analyzer

DEPARTMENT OF PHYSICS

About the Department

The Department of physics of Vinayaka Mission's Kirupananda Variyar Engineering College was established in the year 1987. The objective of the department is to impart fundamentals of physics among students in various branches of engineering. The area of research includes biomedical spectroscopy, nanotechnology and nonlinear dynamics.

Area of Consultancy Service

- Emission measurement
 - i. Structure elucidation of organic compounds.
 - ii. Quantitative analysis and Qualitative analysis
 - iii. Dissociation constants of acids and bases.
 - iv. Chemical kinetics
 - v. Quantitative analysis of pharmaceutical substances
 - vi. Molecular weight determination

LIST OF EQUIPMENTS

Fluorescence Spectrophotometer



Features

High sensitivity $S/N > 2,800$ (RMS), High resolution of 1.0 nm, Wavelength range: 200 to 750 nm (900 nm optional)

Contact Details

Institution Address : Head of the Department,
Department of Physics,
Sankari Main Road (NH-47), Periya Seeragapadi,
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Mobile : 9840262913

DEPARTMENT OF CHEMISTRY

About the Department:

The Department of Chemistry of Vinayaka Mission's Kirupananda Variyar Engineering College was started in the year 1987. The Department completes its 37 years of yeomen service and it is continued till date. It has highly qualified and experienced faculty members. It is one of the active Departments of the Deemed to be University. Most of the faculty in the department possess the doctoral degree and is working with an aim of making the department research oriented. The department provides quality teaching, learning, research and consultancy in humanities and social sciences by creating, preserving, transmitting and utilizing knowledge.

Areas of Consultancy Services

- **UV VISIBLE SPECTROPHOTOMETER**
 - i. Absorption spectra of various chromophore and auxochromes
 - ii. Quantitative analysis
 - iii. Qualitative analysis
 - iv. Kinetics and Reaction Monitoring
 - v. Material Characterization (semiconductors, nanoparticles, polymers, and dyes)
- **Testing of Water Samples**

LIST OF EQUIPMENTS

UV-VIS SPECTROPHOTOMETER



Contact Details

Institution Address : Head of the Department,
Department of Chemistry,
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Salem - 636 308, Tamil Nadu, India

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DEPARTMENT OF PHARMACEUTICAL ENGINEERING

About the Department

Pharmaceutical Engineering programme covers all parts of drug manufacturing, from designing a new facility to optimizing manufacturing processes and perfecting packaging solutions. The department aims in inculcating the lifelong learning and continuous professional development skills in the students. The department has well equipped laboratory facilities for Pharmaceutical Dosage Forms, Pharmaceutical Chemistry, Physical Pharmaceutics and Human Physiology. Apart from that, it possesses good research facilities and experienced faculty members. The prime focus of the department is the discovery, development, and application of various dosage forms and analytical methods relevant to Pharmaceutical Sciences.

Areas of Consultancy Services

- Dissolution testing of tablets
- Estimation of disintegration time of tablets
- Measuring abrasion strength of the tablets
- Hardness Measurement of the tablets
- Measuring the turbidity of a liquid
- Conductance Measurement
- ❖ PH Measurement
- ❖ Viscosity Measurement

Contact Details

Institution Address : Head of the Department,
Department of Pharmaceutical Engineering,
Sankari Main Road (NH-47), Periya Seeragapadi,
Salem - 636 308, Tamil Nadu, India

Email : hodpce@vmkvec.edu.in

Mobile : 9789243415

LIST OF EQUIPMENTS

TABLET DISSOLUTION APPARATUS



Make & Model: DEEP VISION Model-912

TABLET DISINTEGRATION APPARATUS Make & Model: DURALAB



Friability Apparatus Make & Model: DURALAB



TURBIDIMETER Make & Model: Deep Vision & Model 341



CONDUCTOMETER



PH METER



DEPARTMENT OF MANAGEMENT:

About the Department

The Department of Management was established to develop future leaders and professionals equipped with the knowledge and skills needed to excel in various business environments. It aims to provide high-quality education, foster innovative research, and promote ethical and socially responsible management practices. This two-year program aims to prepare capable individuals to become competent professionals, ready to work in diverse organizations.

The MBA program is structured to cultivate a holistic understanding of organizations and provide comprehensive knowledge of various business functions and skills. Students will also learn teamwork and effective communication skills.

The program seeks to instill a strong analytical mindset in students, along with a sense of social and ethical responsibility and prepare and provide the incumbents with analytical, reasoning, logical decision making and vocational skills in the field of business and management.

Areas of Consultancy Services:

1. Market research analysis and consumer behavior studies.
2. Financial Performance Analysis and forecasting and trend prediction.
3. Human Resource Management(HRM)
4. Total Quality Management (TQM)& ISO
5. Project Management
6. Data-driven decision-making and industry trend analysis.
7. Thesis and project statistical analysis

Contact Details

Institution Address : Head of the Department,
Department of Management Studies,
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CONSULTANCY SERVICES

SAMPLE REQUEST FORM

Contact Person:		Institution/ Industry Name:
Address:		Phone:
		e-mail:
Date of sent:		PO. No

Details of the testing/consultancy assistance required

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*Attach the protocol in MS word format

Contact Person	
Name & Designation	Contact Number
Dr. N.Rajan, Head, Mech. Engg.	9362611811
Dr. R. SasiKumar, Principal	8903609939