# A way towards excellence...





# IPS ACADEMY INSTITUTE OF ENGINEERING & SCIENCE INDORE

(A UGC Autonomous Institute, Affiliated to RGPV)

A journey of a thousand miles must begin with a single step.



Shoot for the moon.

Even if you miss

you will land among the stars.

## Vision



To be the fountainhead of novel ideas & innovations in science & technology & persist to be a foundation of pride for all Indians.

## Mission

- ➤ To provide value based broad Engineering, Technology and Science where educations in student are urged to develop their professional skills.
- > To inculcate dedication, hard work, sincerity, integrity and ethics in building up overall professional personality of our student and faculty.
- > To inculcate a spirit of entrepreneurship and innovation in passing out students.
- > To instill sensitivity amongst the youth towards the community and environment.
- > To instigate sponsored research and provide consultancy services in technical, educational and industrial area.

# Quality Policy

We are committed to impart Quality Education and Training in the field of basic Education, Engineering and Technology, Management and other professional courses. It aims to be the world-class Academy through continual improvements. It also caters to the industry & service sector needs by providing innovation through FDP's, Projects & Consultancy and Teaching packages. The academy support faculty & staff to work as a cohesive team and update their skill and knowledge to match the need of global market.



## Message from the President IPSA Indore



At IPS Academy, Institute of Engineering and Science, Indore, we have endeavoured to provide technical education to future technocrats aptly supported by massive infrastructure, modern amenities, competent faculty and the latest pedagogy that leads to multifaceted development of their innate talent, intellectual and physical capabilities and overall personality and imbibe into them cultural and national spirit thus making them responsible global citizens and conscientious human being. Theory sessions are suitably supplemented with experimental learning & practical field experience so that the student can adapt themselves to face the challenges of competition, globalisation and rise to the expectation of the industrial world. We believe in identify, ignitne and innovate for the holistic development of the student.

Continuous & rigorous training & development regime hones students' communication, leadership and entrepreneurial skills, ensuring the creation of quality job offers and promising entrepreneurs, technocrats, researchers, and scientists. The presence of IPS Academy, Institute of Engineering and Science alums in every nook and corner of the globe bears testimony to our triumph. The step forward is establishing an industrial job-oriented, research & development-oriented Institute where Indian spirituality, ethics and values meet Western science & technology.

Ar. Achal K Choudhary (Alum IIT Kharagpur) President

## Message from the Principal



Skill Development through Technical Education is the most potential instrument for socio-economic change. The engineer is seen as a high-tech player in the global market. Distinct separation is visible in our education between concepts and applications. Most areas of technology now change so rapidly that there is a need of professional institutes for Skill Development.

IPS Academy, Institute of Engineering and Science, Indore is a leading, premium UGC Autonomous Institute devoted to imparting quality engineering education since 1999. The sustained growth with constant academic brilliance achieved by the Institute is due to more significant Commitment from management, the dynamic leadership of the president, academically distinctive and experienced faculty, disciplined students and service-oriented supporting staff.

The Institute plays a pivotal role in creating an ambience for creating novel ideas, knowledge and graduates who will be the leaders of tomorrow.

I sincerely advise the young engineers to face the major challenges of industry with a relentless search for innovation for achieving economy and improved durability by constantly up grading the technology with optimum use of human resources.

I am delighted to note that the students of this institute have been able to demonstrate their capable identities in different spheres of life and occupied prestigious positions within the country and abroad. The excellence of any institute is a measure of achievements made by the students and faculty.

All the Best

Dr. Archana Keerti Chowdhary Principal



## **IPS Academy Institute of Engineering & Science, Indore**

IPS Academy, Institute of Engineering and Science (IES) Indore was established in 1999 under the aegis of IPS Academy. It is one of the most preferred self-financing UGC Autonomous institutes in MP affiliated to Rajiv Gandhi Prodyogiki Vishvawidyalaya (RGPV) Bhopal for studying professional, technical courses leading to B.Tech/M.E./M.Tech. Degree. The Institute is situated on AB Road, NH No. 3, at Rajendra Nagar Indore, the commercial capital of Madhya Pradesh. The Institute is located on a sprawling campus of about 7.5 acres amidst sylvan surroundings with aesthetically built infrastructure. The Institute is 10 km and 7 km from the railway station and airport respectivley. The UG programme Fire Technology & Safety Engineering was the Institute's unique program in the State of MP in 1999.

Within 24 years, the Institute has attained a firm footing amongst all the technical institutions in Madhya Pradesh and is a highly-ranked Institute all over India.

The Institute has grown in size and stature from an initial intake of 180 to 4000 students. It currently offers 14 UG and 8 PG programs. The Institute was granted Autonomous status by UGC, New Delhi, under its UGC regulation 2018 from the academic session 2020-2021, vide its letter dated July 15th 2020. Subsequently, the notification to this effect was issued by the affiliating university, RGPV Bhopal, vide its letter dated Aug 30th 2020.

Institute of Engineering & Science aims to create an environment conducive to learning and growth. Inspired by a passion for excellence, Institute believes in the philosophy of universal brotherhood, offering all its students an equal platform for performance.

## Why IES.....?

#### **Autonomous**

It is the first private self-financing Institute in MP, accorded Autonomous status by University Grant Commission (UGC), New Delhi, from session 2020-21.

The Autonomous Status accords an institution with the freedom to frame the syllabus and customise it as per the needs of the Industry. Students are taught the latest and relevant technologies to make them competent in the market. Experts from various industries and experienced academicians from reputed institutes are consulted in framing the syllabus. Dedicated efforts are made to ensure that the syllabus framed is "Employment Centric".

#### **Pursue Minor & Honors Certification Courses**

Brighter students transiting to the third year shall be permitted for the Honors and Minors certification scheme as an additional avenue for passionate learners.

- Honours certification shall facilitate the students to specialise in their program for higher studies/research orientation.
- Minor certification courses will enhance the employability skills of the students.

#### **NBA Accredited UG Programmes**

The Institute is one of the very few Institutes in Madhya Pradesh to get accreditation for UG courses under Outcome-Based Education (OBE). "OBE is the quality assurance mechanism adopted for engineering programmes by NBA, New Delhi when India became a signatory of the Washington Accord in June 2014."

Reaching this summit has enabled global recognition of IPS Academy, Institute of Engineering & Science Indore. It allows greater flexibility and increased mobility to the degree offered and to its graduate to opt for higher studies and acquire better jobs in member countries of the Washington Accord.

#### **Environment**

Our encouraging environment ensures a smooth evolution between students & faculties. We offer to support the professional, technical development of students. To inculcate a spirit of entrepreneurship & Innovation among the students, an independent IEDC cell sponsored by DST is established in the Institute. IES provides a diverse learning & generous environment where students from different cultures and places strive to achieve excellence in their fields.

## **Qualified Faculty**

Institute's faculties & technical assistants are experts in their subjects/fields. Their research-oriented teaching methodology gives students an enhanced understanding of the subjects. The faculties of IES have received the 'Young Scientist Award' consistently for the last six years from the MP government.



#### **Touch of Excellence**

Value addition courses like soft skills, Foreign language & personality development help students to develop employment-oriented skills. Training programs are also organised to meet the requirement of the industry field.

#### Quality

Many of our graduates/post graduates have departed in top levels of high tech companies; many have pursued higher studies in prominent institutes in India and Abroad, and some become successful entrepreneurs.

#### State of Art Laboratories

Institute has more than 50 laboratories; all have state-of-the-art facilities. All are equipped with demonstrating and working models. Institute maintains a 1:2 student ratio in computer facilities. Various labs are maintained to fulfil industry needs for consultancy work. We house the most modern laboratories like AR/VR Lab. Microfluids lab, IDEA Lab etc.

#### **International Collaborations**

Institute collaborates with renowned institutes around the globe, and the student exchange program (twinning program) started in 2021. For the research projects, Institute has many International collaborations with the countries like Japan, Russian Federation, Portugal, Slovakia, and the USA.

#### R & D

Hands-on opportunity to learn new subjects and technology, including research & development. Students submit innovative ideas, and funds are provided to implement ideas into reality to improve society and the Nation's growth.

#### Recreation

Institute provides a range of activities, including sports, culture, yoga, and horse riding. Outdoor recreation also offers industrial visits, Industrial tours, on-campus trips and rural outreach.



## Life Membership

- IWWA Indian Water Works Association
- ICI Indian Concrete Institute
- ISTE Indian Society for Technical Education
- NSC National Safety Council
- NFPA- National Fire Protection Association
- IFE Institute of Fire Engineering (U.K.)
- IEEE- Institution of Electrical & Electronic Engineer
- IETE The Institution of Electronics & Telecommunication Engineer
- CSI- Computer Society of India
- SESI- Solar Energy Society of India

## Students' Chapters

- IEEE Institution of Electrical & Electronic Engineer
- IETE- The Institution of Electronics & Telecommunication Engineer
- IIChE Indian Institute of Chemical Engineer
- ICI Indian Concrete Institute
- CSI Computer Society of India
- SAE Society of Automotive Engineers
- ISTE-Indian Society for Technical Education
- FSAI-Fire & Security Association of India
- ISHRAE Indian Society of Heating, Refrigerating and Air Conditioning Engineers
- SSAFE Society of Safety & Fire Engineers
- IGS Indian Geotechnical Society
- SD Standards Club

## **Technology Initiatives**

- Website: ies.ipsacademy.org
- Campus Active
- LMS- Leave Management System
- AMS Academic Management System
- OBES- Outcome-Based Education system

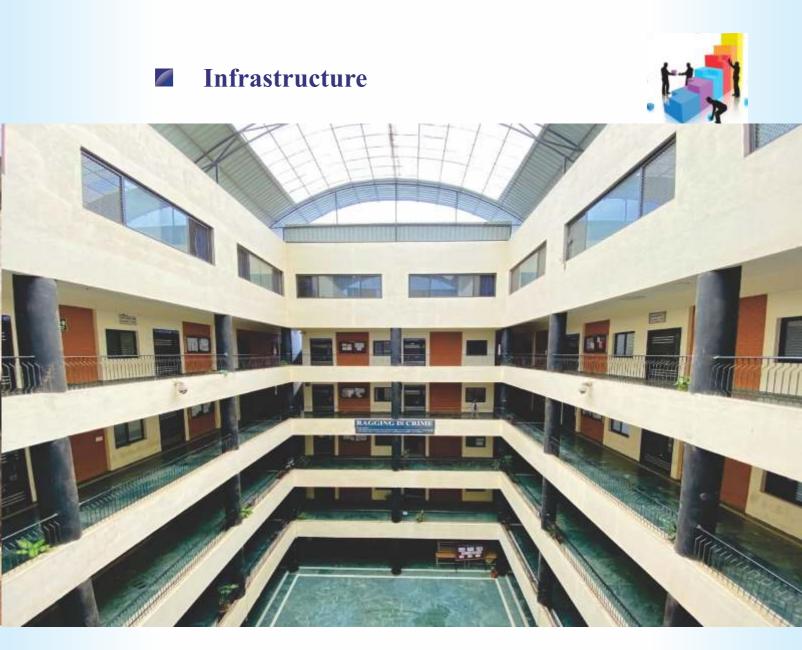
- FAPI- Faculty Academic Performance Index
- Online Exam Software, Student ID, Registration, Online Feedback System
- 1 Gbps leased line with Wi-Fi connectivity across the campus.

## Institute has Introduced Innovative Steps

- Online Feedback System
- Online Marks Feeding System
- Online Attendance Feeding System
- Online Appraisal For Faculty
- Online Registration System
- Online Leave Management System
- Department Automated System
- Online Test Management System
- Intranet Communication System
- Online Assignment System
- Hands on Training On Linux System
- Nodal Center IIT Bombay

## Subscription of Microsoft IT Academy

- Microsoft ED-Vantage Platinum Level
- On campus Microsoft Cloud Competency Center
- Microsoft Academic Alliance Platinum Certificate



The Academy is spreading over 60 acres of land with a lush green environment. The Institute have several well-furnished, ventilated and well-illuminated classrooms, laboratories and faculty rooms. All the departments exhibit ultramodern facilities, a computer centre with state-of-the-art facilities and LCD monitors. All computer systems of the computer lab, library, hostels etc., are connected to an internet connection and Wi-Fi. All the departments exhibit ultra-modern facilities, a computer centre with state-of-the-art facilities and LCD monitors. Teaching is conducted through modern teaching aids such as LCDs, PowerPoint presentations etc.

## Computer Center

By and significant improvement of engineering students is ensured by an impartial revelation of software and hardware technologies in the sound operational computer laboratories of the various departments. IES computer centre provides excellent computing facilities. They epitomise the cutting-edge technology available in the institute Servers, which support LAN, and provide the latest Windows and Linux environments. The server has been connected to a 1Gbps leased line and the latest Wi-Fi for providing internet facilities to its user, which is available round the clock.





## **Software Associated**

- AFT Impulse
- Abacus
- SAP 2000
- ETAB
- STAAD PRO
- Winsim Design II
- Solid works
- AFT Fathom
- CHEMCAD
- CIVIL 3D
- Xilinx
- Modal Sim
- Micro wind 3.5
- PSIM
- PRIMAVERA P6
- Octave

- Quarts-2 Altera
- Labview
- CCSV 3.1
- MATLAB
- EDSA
- Prodyn Model
- Azure
- Sci Lab
- GMS 6.5
- ANSYS
- COMSOL Multiphysics
- Altera
- Target 3001
- ASPEN Tech.
- Rational Rose Software Application

# Learning Resources (Library)

The library is a spring to quench the desire for acquaintance for teachers and students. Being the spine of the Institute, it provides facilities for learning, teaching, research and consultancy projects.



A committed separate block is available for a well-equipped and updated library with nearly 50 thousand books and several journals and periodicals on the latest subjects. Every day, new books are pouring into the library. In addition, the library has a steady flow of newspapers, magazines and journals on civil, mechanical, electronics, computer science, electrical, chemical and fire tech disciplines, with a good collection of Video Cassettes and CDs on related engineering branches.

The library provides spacious seating arrangements for students and faculties. IES library is fully computerised with internet connectivity so that readers can access several thousands of eBooks & journals. The library is also providing the leading e-journals, viz. Science Direct, IEEE, Elsevier, ASTM, ASCE, National Digital Library, NPTEL Video Lectures, N-List ASME, J-Gate and many more.

## Auditoriums

An open-air theatre of capacity 2000, well designed for conducting major cultural and academic events, is available in Academy. The Institute has four exclusive auditoriums of 250 each, which are used for arranging conferences, invited lectures by eminent guest speakers and career guidance programs. One auditorium of capacity 100 is used exclusively for placement-related activities.







## Girls Hostel



A well-furnished girls' girls hostel with a capacity of about 200 respectively is within the campus. It has everything students enjoyed at home, motherly care, fatherly responsibility, cool rooms, timely and healthy meals, and a green naturist ambience. It has 24hrs highspeed Wi-Fi and internet facilities in the hostel.



Mess

Pure vegetarian, nutritious and hygienic food is provided under the surveillance of a qualified nutritionist. This mess caters to all IPS Academy students, faculties, and hostlers with breakfast, lunch and dinner.





## Transport

The Institute is plying its own 40 Buses & 16 cars to cover all important stops in the Indore city, Mhow and Dewas for bringing and dropping off students and staff on time.





## Medical Unit



Well-equipped Medical Units and girls' hostels are available on campus, attended by qualified doctors.



# Banking Facility

IPS Credit Sahakarita Ltd. with ATM facility is a bank providing computerised facilities for deposits, withdrawals, Pay orders, DD, Cheques, etc.

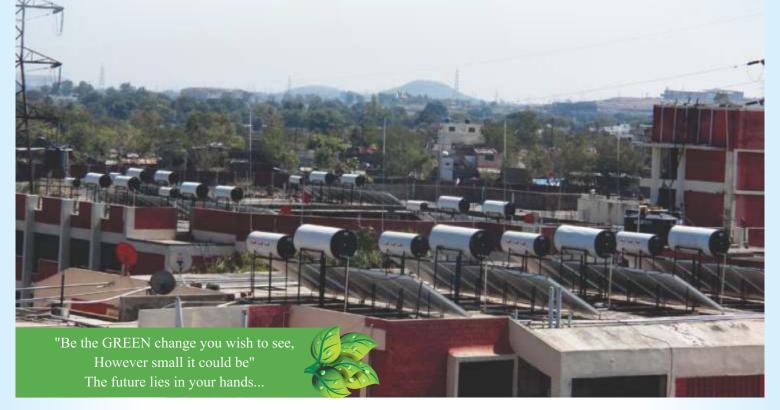


#### **Best Practices -**

## 1. Green Initiatives

"Be the GREEN change you wish to see, However small it could be"

The future lies in your hands...



Our Commitment to responsible citizenship also includes conserving natural resources and protecting the soil, water and climate required to sustain life on Earth. The Institute has decided to roll out initiatives to make the campus more environmentally friendly by addressing significant aspects — water conservation and minimising waste. The following major projects are completed on campus.

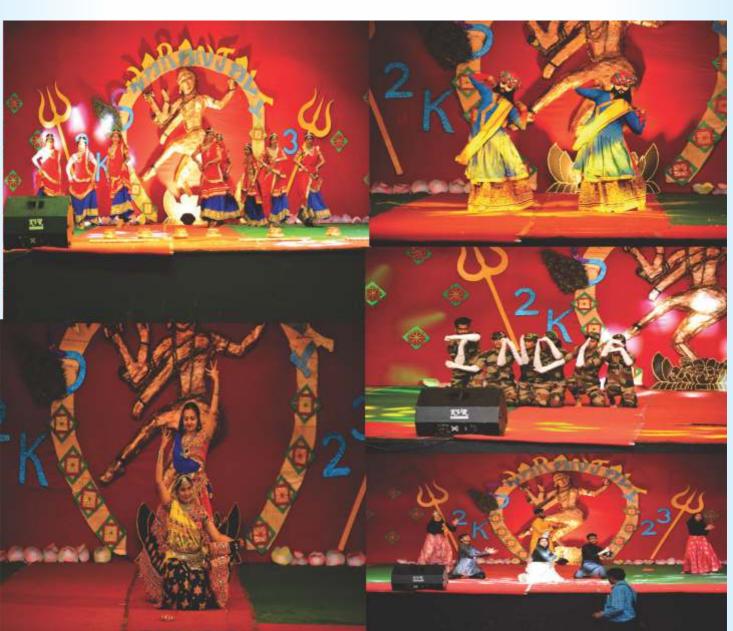
- Sewage Treatment Plant
- Waste Plastics Recycling Plant
- Solar Water Heating System
- Energy Efficient Building using LED
- Ozone Plant for Water Purification
- Paper Recycling Plant (in Process)

## 2. Social Initiative

Free food distribution, hand sanitiser & face masks during the covid-19 period also provided free transport facility to needy people during the pandemic. We regularly organise social activities like blood donation camps, eye checkups, the joy of giving, rural outreach, nukkad natak etc.

## Extra Curricular Activities

Without time off from work, a person becomes both bored and boring. Keeping this in view, the Institute provides facilities to students for their recreation and extra co-curricular activities for the development of personality as a whole. Besides, Students have band, music, drama, and technical fest for literal, technical, brainstorming activities where a student gets abundant opportunities to fabricate as he wants.















## Sports Event

Sport is something which helps to keep students fresh and healthy with a lot more enthusiasm and excitement. There are more than twenty sports, including indoor and outdoor activities, for students to make sports platforms at different levels. These activities remain a relaxation from the strains of student life, too many studies and anxiety. IES have a track record of students at national and international levels. We house International Basketball and Lawn Tennis courts. We also have shooting and horse ridding club.





## NCC/NSS

A sense of national pride and discipline are the imperatives of education; keeping this in mind, all students must take NCC/NSS training.



## Educator

Due to the blaze of technical education globally, a severe deficiency of qualified teachers in the institutes, even in the central/state government's old and new institutes. The Institute appoints qualified and experienced teachers. The Institute has several experienced teachers.

The qualified faculties are selected after advertisements in national and State newspapers, and pay scales are offered as per AICTE norms.



## Edification

The teaching attitude is a versatile art and a blend of knowledge and delivery of subject matter. Importance is given to tutorial classes, class tests, and home assignments. These exercises point out the deficiencies and shortcomings of students and thus prepare them to perform better in the Examinations. This attitude prepares the students to face impending challenges.



## Outcome

The Institute has achieved excellence in both education as well in R&D also. Students' results are highly competent and at par with any other institute affiliated with universities. Most of the results are above 90%, and several students have secured merit positions in the university.



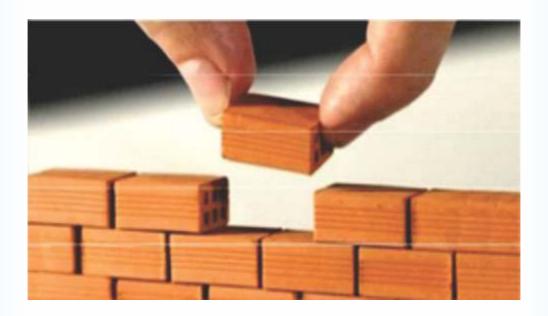
## Industry Institute Interaction Cell

"BRIDGING THE GAP BETWEEN ACADEMICIA – INDUSTRY"

"CREATE SKILLS THROUGH SYMBIOTIC GROWTH"

The IIIC was established with the objectives:

- To create adequate facilities for updating knowledge of Professional engineering and technologies.
- To meet the growth and development needs of the Industry.
- Coordinate the research and developmental activities of the two systems, i.e. Industry and Academics.



#### **Institutions' Innovation Council**

(MHRD's Innovation Cell, AICTE New Delhi)

Ministry of Education, Govt. of India has established its "Innovation Cell" at IPS Academy, Institute of Engineering & Science, Indore for Technical Education to foster the culture of Innovation systematically. The IIC at Institute was ranked among the top 25 performers at the National level during the session 2018-19 and the top three performers in the Central India zone during the session 2019-20. The IIC has mentored five IICs of the central India region.

IIC aims to create and strengthen the culture of Innovation and entrepreneurship ecosystem across all HEIs. Please enable them to promote and support student innovations and sustainable start-ups from academic institutions. To engage, encourage and channelise the creative energy and entrepreneurial potential of Indian youths to build innovations and enterprises.

Under IIC, activities like awareness of IPR, EACs, Bootstrap Camps, Leadership talks, copyright training, Industrial Visit, Ideas, POCs start-up camps etc., are organised.



IIC at IPS Academy, Institute of Engineering & Science felicitated as top 25 Performing IICs among 950 Institutions by MHRD GOI at AICTE New Delhi by Hon'ble Union Minister for HRD, Shri Ramesh Pokhriyal 'Nishank' and Hon'ble Minister of State for HRD, Shri Sanjay Dhotre.



Hon'ble Union Minister for HRD, Shri Ramesh Pokhriyal 'Nishank' and Hon'ble Minister of State for HRD, Shri Sanjay Dhotre, felicitated IIC at IPS Academy Institute of Engineering & Science Indore as the top three best-performing IICs in Central India.

## Placement

Although the varying financial set-up, placement of IES forever best in central India, with our graduates entering into a broad array of careers despite degree and stream. Students of IES proved their intellectual brilliance during in-campus drives and got selected with worthwhile professional offers ranging from package 4 to 15 lacs per annum. The highest package of the 2023 batch pass out students touched another mile stone of whooping 4 Cr./ annum in Tesla.

#### **Highlights:**

- Faculty Placement Coordinator in each Department.
- IPS Academy establishes the Career Management Group for placement and other activities.
- Pre-Placement Talk/Presentation by leading Companies.
- Guidance from IES alums about student queries & help.
- Session on soft skills, group discussions, interview techniques etc.
- Separate Placement Cell equipped with all ultra-modern amenities.
- Hands-on training on the latest software.



## Prominent Companies Visited

- Tata Consultancy Services
- Accenture
- HSBC
- MU Sigma
- L & T InfoTech
- Alembic
- Tata Steel Ltd.
- Lupin Pharmaceuticals

- IOCL
- Bridgestone ACC India Ltd.
- UNICHEM Laboratories Ltd.
- Eicher Motors.
- Prachi Infrastructure Pvt. Ltd.
- Sankalp Semiconductor
- Wipro Ltd.
- Reliance Industries and many more...

# Training and Development Cell (TADC)

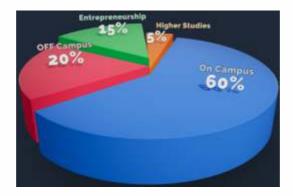
Career Management Group in IPS Academy provides a launch pad for students to reach the best organisation in their respective fields.

Training and Development Activities Besides placements, the Central Management Group has a full-fledged personality development and soft skill training cell which organises programs, mock interviews, group discussions, case studies, workshops, Internships etc.

Some of the faculty and students development programs organised by the Training & Development Cell are:-

- Interpersonal and communication skills
- Soft & Technical Skill.
- Program on Personal Effectiveness.
- Personality Development Program
- Mock Interview Sessions and many more.

#### **Placement Summary**



# Innovation and Entrepreneurship Development Centre (IEDC)

Entrepreneurship is the vibrant assertion that individuals can be developed, outlooks can be changed, and their ideas can be converted into action through an organised, systematic program for entrepreneurs. It was also felt that systematic training could be given. Entrepreneurship Development is one of the core competencies of technical human resources. Creating awareness regarding entrepreneurial traits, entrepreneurial support systems, opportunity identification, project report preparation and understanding legal and managerial aspects can help motivate technical stream students to start their small-scale businesses. In this view, IPS Academy, Institute of Engineering and Science Indore, in collaboration with The National Science & Technology Entrepreneurship Development Board (NSTEDB), Department of Science & Technology (DST), Government of India, took the initiative.

- Organise Entrepreneurship Awareness Camp (EAC) for students.
- Organise Faculty Development Program (FDP) on Entrepreneurship annually.

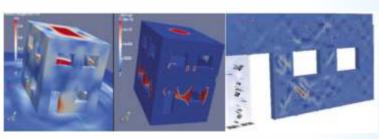


## Research and Development (R&D)

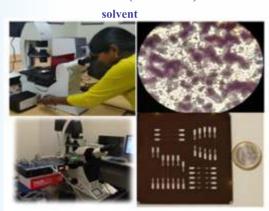
In research, IPS Academy, Institute of Engineering & Science has received both international and national recognition. The research projects has been awarded grants of more than 2.5 crores from Department of Science and Technology (DST), Science and Engineering Research Board (SERB), All India Council for Technical Education (AICTE), Madhya Pradesh Council of Science and Technology (MPCOST) and various other funding agencies. The institute received funds through MODROBS scheme twice for the development of institute's state-of-the-art labs with advanced laboratory facilities. Faculty members and students are actively publishing research papers in SCI, Scopus, Web of Science, and UGC care list with innovative research works in cutting-edge science engineering and in various interdisciplinary domains. Published and granted national and international patents. Faculty members and students are working with experts of international and national research organizations in interdisciplinary fields. Some prominent institutions include- the Moscow Institute of Physics and Technology in Russia, the National Institute for Quantum and Radiological Science and Technology in QST-Takasaki, Japan, the University of Peradeniya in Sri Lanka, and Pázmány Péter Catholic University in Hungary, Slovakia University of Technology, IIT Indore, IIT Guwahati, among others, are also notable institutions.



**Rotary Evaporator: Applied to separate** the mixture of solute (non-voliatle) and



Modeling of Masonry building developed at Moscow Institute of Technology, Russia



Microscopic view of Bacterial Vaginosis **Pathogens** 



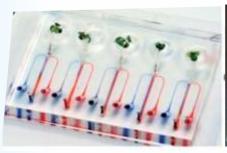


**Healthy Vaginal Mucosa** 

Lactobacillus 95%



**Unhealthy Vaginal Mucosa** Lactobacillus 5%



Rice plant in Microfluidic platform for studying the effect of Rhizohspere Bacteria



Sesimic performance assessment of masonary room using uniaxial shake table at Heavy Structure lab

## **Advanced Laboratories**

**AR/VR Lab:** The Augmented Reality (AR) and Virtual Reality (VR) technology lab is equipped with specialized hardware and software that enable researchers, developers, and students to create, test, and provide immersive AR or VR experiences. The Lab focuses on focuses on XR (Extended Reality) technologies.

AICTE IDEA Lab: The aim of the AICTE IDEA Lab is to provide a creative space to foster and facilitate the generation of new ideas, brainstorming, and problem-solving. The Lab houses some of the latest and advanced technology equipment like 3D Printers, CNC Lathe, 3D Scanner, SMT Pic and place machines, Laser Cutter machines, testing and prototyping machines etc.

**E-Vehicle Lab:** The Lab is a specialized facility dedicated to the research, development, and testing of electric vehicles and related technologies. The Lab houses some of the modern tools for the design, assembling, development and testing of e-vehicles. The vehicles designed in the lab have fetched competitions National honors at like E-BAJA.



## **Course Offered**

The Institute offers both undergraduate studies leading to a B.Tech. degree and postgraduate studies for M.E./M.Tech. degree.

## **Under Graduate Programs**

Four-Year Bachelor of Technology (B.Tech.) The degree programme is in the following disciplines.

S. No.	Program	Courses	Intake
1	B.Tech.	Agriculture Engineering	30
2	B.Tech.	Chemical Engineering	30
3	B.Tech.	Civil Engineering	60
4	B.Tech.	Computer Science & Engineering	180
5	B.Tech.	Computer Science & Information Technology	180
6	B.Tech.	CSE (Artificial Intelligence and Machine Learning)	120
7	B.Tech.	CSE (Data Science)	120
8	B.Tech.	CSE (Internet of Things )	60
9	B.Tech.	CSE (IoT & Cyb. Sec. inclu. Blockchain Tech.)	60
10	B.Tech.	Computer Science and Engineering (Regional Language)	60
11	B.Tech.	Electrical & Electronics Engineering	30
12	B.Tech.	Electronics & Communication Engineering	30
13	B.Tech.	Fire Technology & Safety Engineering	90
14	B.Tech.	Mechanical Engineering	30

## **Post Graduate Programs**

The objective of the M.E./M.Tech. The two-year postgraduate program exposes students to high-level theoretical and practical knowledge, enabling them to tackle practical complex problems of design and development in the industrial field and pursue further academic achievement through research.

S. No.	Program	Courses	Intake
1	M. Tech.	Chemical Engineering	18
2	M.E.	Data Science	18
3	M. Tech.	Construction Planning & Management	18
4	M.E.	Digital Communication Engineering	9
5	M. Tech.	Industrial Safety Engineering	18
6	M. Tech.	Power Electronics	18
7	M. Tech.	Robotics	18
8	M. Tech.	Structural Engineering	18



# Departments

Though the Institute has fourteen engineering branches, its Department is highly equipped with State of the art laboratories, the latest trainers, tools, hardware and software to impart quality technical education to B.Tech / M.Tech students and to carry out research work. Some of their discipline-wise salient features are:



# Civil Engineering

#### **About the Department**

Established in 2004 with the mission of fostering ideas and building leaders, the department boasts of modern facilities and experienced faculties and is backed by a wide range of alumni who have achieved high-level positions in All India Services like Indian Administrative, Police, and Forest Services, Central Services, Engineering Services, Public Sector Undertakings, and premier private sectors. The department, NBA accredited, has established strong connections with the construction sector, academia, and research, both at home and abroad, and is now widely regarded as one of the premier engineering departments in the nation. The department is renowned for its multifaceted activities, which include testing, consultancy, research and development, organizing state-of-the-art seminars, international and national conferences and workshops, Faculty Development and Short Term Training Programs, well-equipped laboratories, and specialized computer facility.

#### Offering's

B. Tech. – Civil Engineering

M. Tech. –

Structure Engineering Construction Planning & Management

#### **About Civil Engineering**

Civil Engineering has developed to leaps and bounds in recent times. The prospects are bright for civil engineers in the coming year, considering the Globalization and Liberalization of our national economy. This has opened the doors for foreign investment in the infrastructural development of our country, simultaneously throwing challenges to our people to compete with the multinationals. Civil engineers work as construction, transportation, hydraulic, irrigation, geotechnical, environmental, and public works engineers.

## **Career Opportunities**

- Airport Authority of India & Defense forces
- Civil Engineering Software development companies
- EDWPL India Ltd, MPRRD, PMGSY etc
- Business Groups like L&T, BHEL, Adani, Airtel, Vedanta, Lloyed steel etc.
- Infrastructure developer Companies, Development Boards & Municipal bodies
- Insurance companies, Banks HDFC, ICICI etc

#### **Contact:**

HoD Civil Engineering Ph.:- 0731 4014607-608

Email: - hod.civil@ipsacademy.org



# **Computer Science & Engineering**

## **About the Department**

The Dept. was estb. in 1999 with an intake of 60. The prog. is accredited by the National Board of Accreditation (NBA), having modern laboratories with all amenities & outstanding faculties. The Dept. provides high-quality educational prog. by maintaining a balance between theoretical, experimental & research aspects of Comp. Engg. as well as a balance between software & hardware issues. The Dept. organises various activities for students like Industrial Visit, Internship; Spoken Tutorial tied up with IIT Bombay to provide exposure to the latest trends in technology.

By & large, the improvement of Engg. students are ensured by an impartial revelation of software & hardware technologies in the sound operation Comp. laboratories of various departments. Comp. laboratories provide excellent computing facilities with the latest tools & software, epitomising the cutting-edge technology available in the servers & providing the latest software development environments.

Apart from the regular curriculum, Minors & honours in Artificial Intelligence & Machine Learning also run.

The best part of Engg. is to be able to engineer things. As a software engineer, the scope of the students is in almost every field—the Career paths of Comp. Science engineers are primarily software engineers with the best placement & Entrepreneurs.

#### Offering's

B. Tech. –

Computer Science & Engineering

Computer Science & Information Technology

Computer Science & Engineering (Artificial Intelligence and Machine

Learning)

Computer Science & Engineering (Data Science)

Computer Science & Engineering (Internet of Things)

Computer Science & Engineering (IoT & Cyb. Sec. inclu.

Blockchain Tech.)

Computer Science & Engineering (Regional Language)

M. E. - Data Science



# **Computer Science & Engineering**

## **About Computer Science & Engineering**

Computer Science degrees deal with the theoretical foundations of information and computation, taking a scientific and practical approach to computation and its applications. Computer Science and Engineering (CSE) is a diverse and dynamic field encompassing a wide range of branches, each focusing on specific areas of study and application. Emerging branches of Computer Science like CSE (Data Science), CSE (AIML), CSE (IoT), and CSE (IoT, Cyber Security including Block Chain Technology) reflect the ever-evolving nature of computer science and engineering, continuously pushing the boundaries of technological innovation and offering exciting opportunities for professionals to shape the future of the digital world.

Salary offerings in Computer Science Engineering can vary significantly based on several factors such as location, level of experience, education, job role, and the specific industry or company. Generally, Computer engineers can also get numerous jobs in the top IT companies like Microsoft, Google, Infosys, TCS, Wipro, Accenture, HCL, Facebook, Cognizant, Hexaware, Trilogy, Mu-Sigma, JusPay, Adobe, Oracle, Sun Microsystems, Flipkart, IBM, etc.

## **Career Opportunities**

Computer Science Engineering is a very desirable course among students because it brings with it the promise of employability. Job openings for Software professionals are much higher in the corporate sector than in the public sector. Some of the job profiles are:

Systems AnalystSoftware DeveloperSolutions ArchitectSystem Designer

Network Administrator
 Web Developer
 Database Administrator
 Machine Learning Engineer

IoT Solution Architect
 AI Engineer
 IoT App Developer
 Data Scientist

Data Analyst
 Business Intelligence Analyst

Data Visualization Specialist
 AR/VR Engineer
 Game Developer
 IT Project Manager

Contact: HoD Computer Science & Engineering

Ph.:- 0731 4014645, 652

Email:- hod.compsc@ipsacademy.org



# Electronics & Communication Engineering

## **About the Department**

Estd. in 1999; since then, it has been committed to teaching the latest Communication Syst. & Tech. The UG prog. was NBA Accredited. On one side, the Dept. focuses on the embedded system with processors like ARM, Raspberry Pi & VLSI Tech. & at the other side, it provides students with an edge to modernisation in comm., DSP, NGN, Microwave, Mob. & Satellite Comm. Engg. Our students are given an opportunity to take on honours certi. Prog. in e-Vehicle Engg., Robotics & VLSI Technology. In minor certi., the students can take multi-dimensional courses. The Dept. has adopted the NEP-2020 in its spirit for the holistic development of the students. Today more than 2500 strong alumina network of the Dept. is spread around the globe in the world's top MNCs.

#### Offering's

B. Tech. – Electronics & Communication Engineering

M. Tech. – Digital Communication

#### **About Electronics & Communication Engineering**

Electronics and Communication Engineering (ECE) is a field of engineering that deals with the study and application of electronic devices, circuits, communication systems, and related technologies. It is one of the core branches of engineering and focuses on the design, development, testing, and maintenance of electronic equipment and communication systems. The branch deals with design of LED/LCD screens, smart phones, Laptops and satellite. The branch also deals with control of Robotics and other embedded devices, medical instruments. The branch Engineers are given exposure to VLSI (Very Large-Scale Integration) leading to chip designing.

## **Career Opportunities**

- Government/Railway/Military Engineering Services/ Metro Rail systems
- PSU's, Embedded Field
- E-Vehicle, VLSI Industries
- Research & Development

#### **Contact:**

HoD Electronics & Communication Engineering

Ph.:- 0731 4014610

Email: - hod.telecom@ipsacademy.org



# Mechanical Engineering

#### **About the Department**

The Dept. of was estb. in 2013 with a total intake of 120 students. The Dept. shapes students' future by inculcating ideas, giving technical insight into mechanical Engg, & creating technocrats who change the world. The Dept. has state of art laboratory of Microfluidic in which research in collaboration with Japan & Srilanka is going on in the field of oral cancer. The strength of the Dept. is qualified, dedicated faculty, well-equipped laboratories with modern machines/ apparatus & the latest software. The Dept. organised various activities for students like industrial visits, internships, workshops & expert lectures by renowned faculties & industry experts. The UG prog. was accredited by the National Board of Accreditation (NBA). Mechanical Engg. is a seminal discipline of Engg. from which many different branches (automobile Engg., aerospace Engg., etc.) have developed.

#### Offering's

B. Tech. – Mechanical Engineering

M. Tech. – Robotics

#### **About Mechanical Engineering**

They create the processes and systems that drive technology and Industry. The key characteristics of the profession are its breadth, flexibility, and individuality. Mechanics, energy and heat, mathematics, engineering sciences, design and manufacturing, form the foundation of mechanical engineering. Mechanics includes fluids, ranging from still water to hypersonic gases flowing around a space vehicle; it involves the motion of anything from a particle to a machine or complex structure. Mechanical engineers research, design, develop, manufacture, and test tools, engines, machines, and other devices. Mechanical engineering is one of the broadest engineering disciplines. Engineers in this discipline work on power-producing machines such as electric generators, internal combustion engines, and steam and gas turbines.

## **Career Opportunities**

- Automobile Industries
- Govt./Semi Govt. Departments
- Public Sector/Private Industries
- Mechatronics
- Research & Development

#### **Contact:**

HoD Mechanical Engineering

Ph.:- 0731 4014627

Email: - hod.mechanical@ipsacademy.org



# Fire Technology & Safety Engineering

# **About the Department**

Estb. in 1999 as the whole South East Asia's first AICTE-approved educational Dept. offering four-year B Tech. Degree in Fire Technology. Each year the product of the Dept. is well accepted by Navratan companies of the country with good annual packages. Presently, UG prog. is accredited by the National Board of Accreditation (NBA).

The Dept. works on the motto "We Serve to Save" & contributes to national capacity building for industrial emergencies by providing skilled fire safety technocrats with excellent resources available to the nation. In addition, the Dept. plays a pivotal role in volunteer industrial consultancy for high-rise buildings and factory premises a) preparation of legal documentation on safety management sys. b) designing, commissioning & installation of fixed & mob. Firefighting installation & c) conducting STTPs for industry personnel.

#### Offering's

B. Tech. – Fire Technology & Safety Engg.

M. Tech. – Industrial Safety

# **About Fire Technology & Safety Engineering**

Safety management requires attention to both preventive and protective measures. The subjects related to safety engineering take preventive measures for any emergency management system. The subject of preventive measures includes Industrial Safety, Disaster Management, Environmental Protection, Industrial Hygiene & Occupational Health, Fire Service Administration and Fire & Safety Laws—the protective measures of an emergency management system taken care of by the subjects related to Fire Technology. Subjects related to protective measures are Fixed Fire Fighting Installation, Fire Prevention & Protection Measures, Chemicals for Fire Fighting, Special Fire Hazards in Aviation, Marine, High Raise Buildings etc

# **Career Opportunities**

- Fire Brigade
- Oil & Gas Industries
- Govt./Semi Govt. Organisations
- Private/Public Sector Industries etc.

#### **Contact:**

HoD Fire Technology & Safety Engineering

Ph.:- 0731 4014615

Email:- hod.firetech@ipsacademy.org



# Chemical Engineering

# **About the Department**

The Department was established in 2004 to impart quality and value-driven professional education. The Department's UG program was NBA accredited. The Department has highly qualified faculties from renowned institutions along with industrial backgrounds. The graduated students are spread across the country and globe, pursuing professional careers in various areas, including public and govt—sectors like BARC, ISRO, IOCL, ONGC, GAIL, SAIL etc. Students also started their enterprises as an entrepreneur. The Department constantly updates the curriculum to keep pace with the developments across multiple disciplines. The faculty members are engaged in socially relevant research.

#### Offering's

B. Tech. – Chemical Engineering M. Tech. – Chemical Engineering

# **About Chemical Engineering**

Chemical engineering deals with industrial processes which convert raw materials into valuable products. The Chemical Engineer designs the process and equipment required to operate the plant efficiently, safely and economically to ensure customer requirements. The professional stature of an engineer depends on skill in utilizing all sources of information to reach practical solutions to processing problems. The plethora of scientific and technical knowledge in the profession makes them versatile. Chemical Engineers are usually appointed Process Engineers. Chemical Engineers are also productive in Biotechnology, Environmental Engineering, Pharmaceuticals, Food technology, paint and plastic, oil refineries etc.

# **Career Opportunities**

- Engineering Software
- Public Sector like GAIL, HPCL, SAIL, IOCL, BARC, DRDO, ISRO, etc.
- Pharmaceuticals
- Biotechnology
- Material Science
- Business & Management
- Consultancy

#### **Contact:**

HoD Chemical Engineering

Ph.:- 0731 4014606

Email:- hod.chemical@ipsacademy.org





# Electrical & Electronics Engineering

# **About the Department**

Established in 2003, the department focuses on all trending aspects of Electrical Engineering such as Hybrid & EV technologies, Renewable Energy Systems, Smart Grid Technology, and Robotics. UG program was accredited by the National Board of Accreditation, New Delhi.

Currently, Fourth Industrial Revolution (Industry 4.0) envisages rapid advances in technology, industries, and societal patterns due to increasing interconnectivity and smart automation. In this view, the branch has introduced Interdisciplinary subjects like Micro Controller & its Interfacing, DSP, ADC, IoT, C++, JAVA, MATLAB and Python programming languages etc. With the emphasis on hands-on practices in the above areas, the student will acquire analytic and practical skills and hence can serve better in industrial, government services and research organizations.

## Offering's

B. Tech. – Electrical & Electronics Engineering

M. Tech.— Power Electronics

# **About Electrical & Electronics Engineering**

Electrical Engineers are the backbone of any country. They fulfil the demand for power for industrial growth & domestic needs Electrical & Electronics Engineering offers excellent opportunities in domains such as Embedded Systems, Power Electronics, Control Engineering and Power Systems. Electrical & Electronics Engineers find a plethora of options for entrepreneurship and job sectors like industrial, government services and research organizations etc.

# **Career Opportunities**

- Public Sector such as BHEL, HAL, NTPC, DRDO, ISRO and ECIL etc.
- Defense and Railway Services
- Govt./Semi Govt. Organizations
- Software Industries
- Power Sector Industries
- Electric vehicles Industries

#### **Contact:**

HoD Electrical & Electronics Engineering

Ph.:- 0731 4014611

Email: - hod.elec-elex@ipsacademy.org



# Graduation Day

As a UGC Autonomous Institute, we organize the graduation day ceremony for our students. The day marks the celebration of their completion of degree. This is the most joy full day for the students taking admission the degree program, as on this day he gets the graduation certificate. They get the feeling of "student first". The entire institute is well decorated the class room they study, the laboratory where they do practical, the mess, the canteen etc. The beginning of the day is marked with student procession, where students marched in their academic dress. The students were greeted by parents, mentors' guests of honor, faculty members, members of BoS, AC and GB and the Chief guest of the occasion. Followed by the student processions dignitaries in the academic procession marched forward. The Institute's second graduation ceremony was held on July 08, 2023 for the 2023 batch pass out. The students received awards/Medals and graduation certificates from the Prof (Dr) Sunil Kumar, Hon'ble Vice-Chancellor of the RGPV University Bhopal.



# Admission Procedure



Admission criteria to Undergraduate Engineering/Technology Programs at NITs, IIITs, Other Centrally Funded Technical Institutions, Institutions funded by participating State Governments, and other Institutions shall include the performance in the class 12<sup>th</sup> /equivalent qualifying Examination and in the Joint Entrance Examination, JEE (Main). The Paper-1 (B.E./B. Tech.) of JEE (Main) will also be an eligibility test for the JEE (Advanced), which the Candidate has to take if they are aspiring for admission to the undergraduate programmes offered by the IITs. Students are advised to fill in the JEE (Main) application form online.

**Eligibility Criteria**: Candidates have to meet JEE Eligibility Criteria. The following criteria will apply to Madhya Pradesh Engineering Admissions:

- Passed 10+2 examination with Physics / Mathematics / Chemistry/
  Computer Science / Electronics / Information Technology/Biology/
  Informatics Practices / Biotechnology / Technical vocational
  Subject / Agriculture / Engineering Graphics / Business Studies/
  Entrepreneurship as per table 1.
- In addition to above, Candidates who have passed 12th examination of 10+2 scheme in Agriculture stream (with three main agriculture stream subjects) are also eligible for admission only in Agriculture Engineering Branch.
- Obtained at least 45% marks in required three main subjects as per table-1 (40% marks in case of candidates belonging to SC/ST/OBC (excluding creamy layer) category of Madhya Pradesh), in the above subjects taken together.

#### The Candidate is a child of:

- An employee or a pensioner of the Government of MP or an employee of the Government of MP who died while in service of these State or an officer of the All India Services born on the cadre of MP.
- A Central Government employee, including an employee of Defense Establishments, an employee of Post & Telegraph Dept. or the Railways or an employee of a public sector undertaking posted and stationed in MP on or before January 1st of the year of Examination till the date of admission.
- A person settled in MP under any resettlement scheme sanctioned by the Government of India or the State Government of MP.

**Note:** 90% of Government/Aided colleges seats are reserved for Madhya Pradesh candidates, 5% for Outside MP candidates and 5% for NRIs.

Whereas for Private Self-financing institutes, 75% of seats are reserved for MP candidates, 20% for Outside candidates, and 5% for NRI candidates.

# B. Tech. Lateral Entry

## (For Diploma/B. Sc pass students)

Diploma and B. Sc pass students are eligible for admission in the second year of a four-year B.Tech. Program directly. Admissions are strictly based on the guidelines prescribed by AICTE and MP government. Admission shall be made through counselling based on the common merit list. The counselling programme shall be published in various national and State newspapers and available on the website of the competent authority/Director of Technical Education, MP Bhopal. i.e. www.dtempcounselling.org, www.mptechedu.org

• Eligibility for Lateral Entry admissions - Passed Diploma (in Engineering and Technology) examination with at least 45% masks (40% marks in case of candidates belonging to SC/ST/OBC (excluding creamy layer) category of Madhya Pradesh) Subject to vacancies in the First Year, in case the vacancies at lateral entry are exhausted.

# M. Tech.

- The Candidates should be Indian National.
- A candidate seeking admission to M.Tech. Courses should be a Graduate in Relevant Engg./Technology field with at least 50% marks, Candidate belonging to SC/ST/OBC (excluding creamy layer) categories of Madhya Pradesh with at least 45% marks. Bachelors degree be of a minimum of four years duration and should have been obtained from any AICTE-approved institution or Indian University or a foreign University recognised by the Association of Indian Universities (AIU) or an Institute recognised by the AIU or any Institutes of national importance (i.e. IITs/IISc/ NITs etc.), duly recognised by the MHRD, as equivalent to it.
- Candidates must secure at least 50% marks in aggregate in the qualifying Examination. Candidate belonging to SC/ST/OBC (excluding creamy layer) categories of Madhya Pradesh with at least 45% marks.
- Candidates in the Final year of the above degree examinations can also apply provisionally. But at the time of counselling, such candidates shall have to produce the original certificate of having passed/mark sheet (Showing aggregate marks) of the degree program.

# **Fee Structure**

The fees structure of IES in admitting the students in B.Tech., ME/M.Tech. Courses are according to MP Govt. norms.

# Discipline

Every student in the Institute shall always exhibit good behaviour, show diligence in studies, and maintain decorum and dignity. They should take a proper interest in co-curricular, sports and technical activities and observe all rules of discipline laid down by the Institute, State Government and University. Absconding from the classes without proper reason, ragging or any other breach of the field will not be tolerated.

# Dress Code

All students will wear the uniform dress on all working days.

#### Male:

- 1. Grey Pant, White full-sleeve shirt, Black shoes Female:
- 1. White Salwar, Grey Kammez, White Duppatta, Black Sandals Saturday:
- 1. College T-Shirt & Pants

# Code of Conduct for Students

The Principal of the Institute reserves the right to remove the student from the Institute or punish him otherwise on account of the following:

- Taking part in ragging of any kind in or outside the institute premises.
- Not attending the classes on account of Group Absence.
- Failure to achieve the prescribed standard of education or not attending classes for a considerable period without informing the Institute.
- Unsatisfactory conduct of behaviour.
- Participation in political/unsocial demonstrations.
- Being involved or having been involved in criminal cases or moral turpitude.
- Indulging in any activity derogatory to the college.
- Attendance must be above 75% in theory and practical.

# **Punishment/Rustication**

A student will be punished/rusticated from the Institute if found guilty of gross indiscipline/misconduct/any other undesirable act as a student of the IES.



# Other Colleges

•	School of Architecture	0731- 4014751
•	College of Commerce	0731-4014513
•	School of Computer and Electronics	0731-4014859
•	School of Education	0731-4014778
•	Institute of Economics & Research	0731-4014586
•	School of Fine arts & Music	0731-4014501
•	College of Law	0957-5027564
•	College of Pharmacy	0731-4014701
•	Institute of Fashion Technology	0731-4014512
•	Mashal School of Hotel Management	0731- 4020306
•	Institute of Business Management and Research	0731-4014776
•	Institute of Science and Laboratory Education	0731-4014581
•	School of Travel & Tourism, Arts,	
	Journalism & Education	0731-4014778
•	Institute of Library Science	0731-4014517



# Sister Institutions

#### • INDORE PUBLIC SCHOOL - Main Campus

Hukmakhedi, Rajendra Nagar,

A.B. Road, Indore 452012 (MP) India

Tele Fax: +91 731 4014800, 4014801

Email: info@indorepublicschool.org

Website: www.indorepublicschool.org

#### • INDORE PUBLIC SCHOOL - Eastern Campus

116/1, Saikripa Colony,

Opposite- Hotel Radisson,

MR-10 (towards bypass)

Indore (MP) India

Tele Fax: +91 731 4218844, 4218855,

Mobile No.: 98268 28161

Email: infoeast@indorepublicschool.org Website: www.indorepublicschool.org

# • INDORE PUBLIC SCHOOL - Jhabua Campus

Kishanpuri, Infront of Polytechnic College

JHABUA (MP) INDIA

Tele Fax: +91 7392 243467, 243468

Mobile No.: 98269 01161

Email: infojhabua@indorepublicschool.org

Website: www.indorepublicschool.org

#### • INDORE PUBLIC SCHOOL - Sanwer Campus

481/1, Badodiya Khan, Indore-Ujjain Road, Sanwer, Dist. Indore

(MP), India, Mobile No.: 99262 00161

Email: indosanwer@indorepublicschool.org

Website: www.indorepublicschool.org

#### • IPS Academy - Sanwer Campus

481/1, Badodia Khan,

Tehsil Sanwer, Dist. Indore

Mobile No.: 99262 00161

Email: infosanwer@indorepublicschool.org

Website: www.indorepublicschool.org

#### • RED MAPLE HOTEL

Jhoomer Ghat, Rasalpura, Pigdumber,

Near Rau, A.B. Road,

Indore (MP) India

Tele Fax: +91 731 4020301 to 305

Website: www.mashalhillresort.com

# Location

#### IPS Academy Institute of Engineering and Science Indore

IPS Academy, Institute of Engineering and Science (IES) is on Agra Bombay National Highway. It is about 9 Km away from Indore, a well-known Commercial and IT capital of Madhya Pradesh and is well-known and connected with other parts of the country by Road, Rail and Air. The Institute has a lush green campus over 60 acres of land.

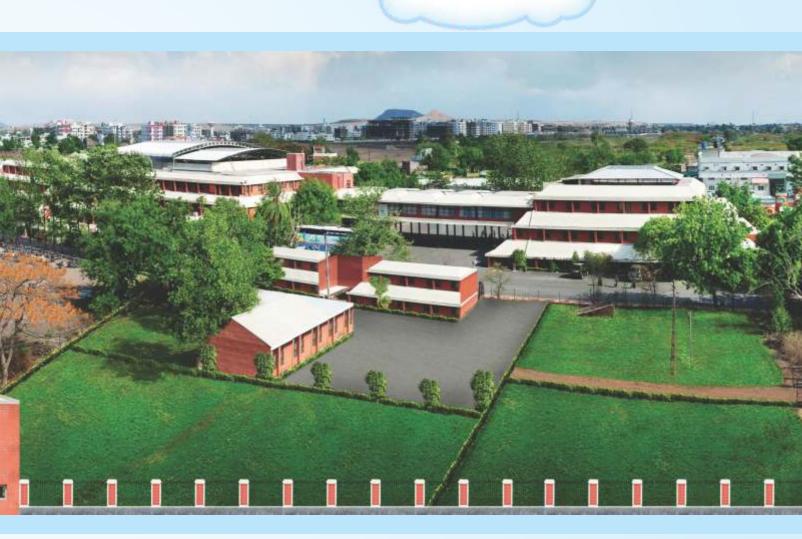


Approved by MP Govt., AICTE Affiliated to Devi Ahilya University, Indore & Rajiv Gandhi Proudyogiki University, Bhopal & Indira Kala Sangeet University, Khairagarh

#### **Contact:**

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https://www.ipsacademy.org/

# Life is 10 percent what you make it and 90 percent how you take it.



Think happy, Act Happy, Be Happy.



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