

IPS ACADEMY

INSTITUTE OF ENGINEERING & SCIENCE

(A UGC Autonomous Institute affiliated to RGPV)



STRATEGIC PLAN



2020-2025

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MESSAGE FROM CHAIRMAN, BOARD OF GOVERNORS

At IPS Academy, Institute of Engineering and Science, Indore, we have endeavored 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, globalization and rise to the expectation of the industrial world. We believe in identify, ignite 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.

Dr. Archana Keerti Chowdhary
Principal

Strategic Planning Committees

Chairperson

Dr. Archana Keerti Chowdhary, Principal

Co-ordinator

Dr. A.G. Kothari, Dean Academics & Management Nominee

Member

Dr. Keerti K Chowdhary, Dean Student Welfare

Dr. Amit Sharma, Dean R&D & Head Civil Engineering

Dr. Rajesh Kumar Kaushal, Dean Administration & Head Chemical Engineering

Dr. Praveen Patel, Head Fire Technology and Safety Engineering

Mr. Rupesh Dubey, Head Electronics Communication Engineering

Dr. Neeraj Shrivastava, Head Computer Science Engineering

Mr. Manish Sehajwani, Head Electrical and Electronics Engineering

Prof. Amit Chandak, Head Mechanical Engineering

Dr. Rekha Dhoot, Head Humanities

Mr. Vikrant Kulthe, Controller of Examination

Mr. Kamlesh Gupta, Deputy Controller of Examination

Mr. Nitesh Parmar, Co-coordinator IQAC

Ms. Pooja Bhatt, Head Training & Placement Cell

Ms. Kshipra Shukla, Registrar

Ms. Shraddha Gupta, Administrative Officer Examination

EXECUTIVE SUMMARY

IPS Academy, Institute of Engineering and Science (IES), Indore, has been periodically formulating strategic plans to align its academic, research, and innovation goals with national priorities and the evolving educational ecosystem.

The previous strategic plan (2015–2020) emphasized excellence in academics, research, industry collaboration, innovation, and entrepreneurship. Its implementation was closely monitored by the Strategic Planning Committee, leading to measurable growth across all institutional domains. Building on this foundation, the Strategic Plan 2020–2025 sets the direction for the next phase of transformation. Although finalized in 2021, several initiatives began in 2020, aligning with the National Education Policy (NEP) 2020 and Viksit Bharat @2047, focusing on multidisciplinary learning, innovation, sustainability, and global engagement. Developed through an inclusive process involving faculty, students, alumni, and industry experts, the plan identifies key areas such as academic excellence, research, entrepreneurship, and community engagement. It also draws from national initiatives like AICTE's Idea Lab, MSME Innovation Programs, and Unnat Bharat Abhiyan.

IPS Academy, IES continues to lead in fostering innovation through its IEDC, IIC, and Incubation Cell, earning recognition under the ARIIA Performer Band by the Ministry of Education. Achievements in Smart India Hackathon, BAJA, and other national competitions reflect its strong innovation culture. The draft plan was reviewed and approved by the Board of Governors before finalization. The Strategic Plan 2020–2025 envisions IPS Academy, IES as a globally recognized institution of academic and research excellence driving innovation, sustainability, and nation-building through quality education.



Preamble



IPS Academy, Institute of Engineering & Science (IPSA, IES), Indore, stands as a beacon of excellence in engineering education, fostering a culture of innovation, entrepreneurship, and societal responsibility. Committed to shaping the future of aspiring engineers, the institute empowers students with the knowledge, skills, and ethical values needed to drive technological advancements and improve the quality of life.

The institute started in 1999 with 3 UG (B.E. / B.Tech.) programs (with the total sanction intake of 60 each). Now, it has emerged as a leading institution in MP state offering 14 UG programs (core branches + computer science engineering and its related emerging branches) & 8 PG programs. The institute is committed to nurture raw talent into future technocrat who can effectively handle the global challenges.

The institute has received numerous accolades for its quality education. It was ranked 29th in the top 125 private engineering, 31st in the top 175 engineering institute and 6th in west zone engineering institute ranking 2024 under Times Engineering Survey, 2024 by OMS (A Division of Times Internet Limited), research by i3rc Insights Pvt. Ltd. Institute was ranked 16th under the ranking of top engineering colleges of excellence by CSR – GHRDC (Global Human Recourse Development Center) Engineer college survey – 2023. Furthermore, it has secured an AAA+ rating by “Career 360,” solidifying its status as one of the premier engineer institutes. The institute is recognized by AICTE and awarded as one of the top 5 performing Institution

Innovation Council (IIC) in Central India Zone by MHRD, mentoring five colleges of central India for the successful establishment of IICs & idea lab.

All eligible UG programs have been accredited by NBA, New Delhi. The institute has been awarded an autonomous status since the academic session 2020-21 by UGC. It may be noted that it is the first self financing institution in MP state who has been awarded status of autonomous institution by UGC, New Delhi. Our academic excellence has been the corner stone of our reputation. Our students & graduates are recognized and valued for their commitment, integrity, leadership & ethical behavior. The institute has In-house training & placement department which trains the students in a distinguished methodology for on-campus placement activities. Career Guidance Cell (CGC) supplements information that helps the students for their future careers. Entrepreneurship Development Cell (EDC) helps the students to turn them into successful entrepreneur. The Industry Institute Interaction Cell (IIIC) injects the practical exposure & congenial relationship with industry for which the institute has signed 09 MoUs with industries. The campus setting, learning environment & the vibrant community all contributes to an exceptional academic environment that gives the institute must to celebrate & build upon.

The institute has been practicing the Outcome Based Education (OBE) as per Washington accord. The faculty & students of the Computer Science Department have developed the software for attainment of COs/ POs/ PSOs.

Education is a collaborative project & the institute has signed MoUs with several industries/ educational institutes including international universities. The institute regularly conducts has been promoting entrepreneurship through various initiatives. The institute conducts entrepreneurship awareness camps, FDPs on entrepreneurship.

The institute makes continuous efforts to encourage and promote its faculty towards research & development activities. One of the faculty members is executing the R & D projects on early detection of cancer in collaboration with IIT Indore. One of these projects was funded by MHRD. As of now, 50 faculty members have obtained their Ph.D. degrees after joining the institute. The institute supports the faculty in research activity by providing necessary assistance to them. The faculty is encouraged to publish their research papers in SCI/ WoS Journals and 1 & 2 UGC list of referred journal, and the incentive is given to them as per the institute policy.

The institute offers a special coaching to the students to improve the communication skills & their placement. Recently, the institute has signed a MoU with UCLA university, California to

facilitate the students of the institute to study the 7th & 8th semester subjects under the Student Exchange Program as per credit transfer scheme (section 20 of ARR, PP 32).

The faculty & students are also encouraged to take up MOOCS like NPTEL, SWAYAM, etc.

The institute provides technical education, training research, campus placement and other related services to enrich and empower the students and to address societal needs through education & practice. The institute has hosted an International conference in February, 2019 as well as the departments also hosted a several National/ International conferences. The departments also organized the various FDP programs for Faculty & researchers.



Key Objectives 2015-20

The Institute set itself some key objectives for the period 2015-20:

- Develop flexible, industry-relevant curricula and innovative teaching methods to prepare students for global jobs.
- Expand incubation programs, increase research funding, and establish the Institute as a leader in impactful publications and patents.
- Create smart classrooms and labs, and improve IT networks and digital learning tools for a modern campus.
- Enhance student support with career counseling, co-curricular activities, and better grievance mechanisms.
- Promote inclusivity and career progression for faculty and staff while improving administrative efficiency through ERP systems.



Over the past five years, our objective has been to position the institute as a premier center for academic excellence, innovation, and research. To accomplish this, we have meticulously aligned our curriculum with current industry trends, ensuring that our programs remain relevant and competitive.

We have invested in modernizing our infrastructure, enhancing our facilities with state-of-the-art technology and resources that support both teaching and learning. This includes upgraded laboratories, collaborative spaces, and digital tools that facilitate innovative research and education.

In addition to these structural changes, we have prioritized creating a vibrant and inclusive campus culture. We believe that diversity enriches the educational experience, so we have implemented initiatives that promote equity and belonging for all students, faculty, and staff.

Furthermore, we have established programs that encourage holistic development, focusing not only on academic achievement but also on personal growth, skill-building, and professional development. Our commitment to a technology-driven ecosystem ensures that our community

can thrive in an increasingly digital world. By fostering collaboration and creativity, we aim to empower everyone at the institute to reach their full potential.

Key Targets 2015-20 and the achievements

The tables below summarize the key targets set out in the 2015-20 plan and the achievements. The accompanying graphs show the steady growth achieved towards key targets during the plan period.

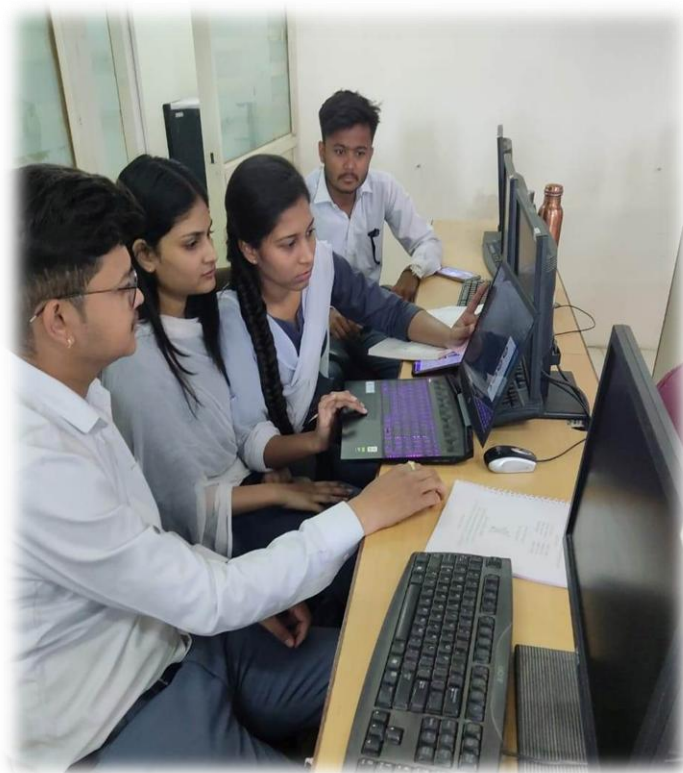
PILLAR	MEASURE	TARGET 2020	2020 ACHIEVEMENT
Courses	Choice Based Credit System (CBCS) and elective courses	Incorporate the CBCS System and elective courses from the 5 th semester onwards	Achieved
	Experiential learning Courses	25 % Courses	Partially Achieved
Research	High-impact publications	01 SCI paper per faculty every year	Partially Achieved
	Funding from Govt. agency	Research Project from DST	Project sanctioned from DST (International Bilateral Co-operation Division), New Delhi
	Institute as a center of excellence by hosting international conference	Organized 01 international conference	International Conference on “Recent Advances in Interdisciplinary Trends in Engineering & Applications” was organized by the Institute in February 2019.
	Lab Development through MODROB	Grant for Lab Development	Grant-in-Aid under the scheme MODROB for the year 2018-19 and 2017-18
Entrepreneurship	Integrating entrepreneurship into the curriculum	Organized Entrepreneurship Awareness Camp every year	Achieved
Faculty	Financial support for skill enhancement	Maximum faculty received financial support	Partially Achieved (70 % faculty received financial support)
	Training program for faculty	Organized training program for faculty & staff every year	87 training program organized for faculty & staff

Students	Every student should engage in one passion outside of their academic studies.	Every student to be addressed	Partially Achieved
Infrastructure	Capacity of labs and classrooms	Auditorium on each floor	New Academic Block added , Auditorium added on each floor
	Implement eco-friendly systems	Rain water harvesting and solar energy	Achieved
	Library offerings with digital tools and global platforms	E- Journal Subscription and E-resources	Achieved
Governance	Enterprise Resource Planning (ERP)	Implement a paperless ERP-driven system	Achieved CMS (Campus Management System)



The specific targets and their achievements provide a clear picture of the Institute's growth during the planning period. Additionally, several developments have significantly impacted academics, technology development, and campus life as a whole.

The institute has set ambitious goals with the vision of becoming a distinguished center for academic excellence and innovation. To ensure the curriculum remains relevant and responsive to the ever-evolving demands of industry and entrepreneurial education, it has successfully implemented the Choice-Based Credit System (CBCS). Starting from the 5th semester, students have been offered a range of elective courses that allow them to tailor their educational journey according to their interests and career aspirations.



In its commitment to fostering a culture of innovation and research, the institute has established state-of-the-art laboratories and incubation spaces. These facilities are designed to promote hands-on learning and collaboration with industry leaders, while also supporting the development of eco-friendly infrastructure. The institute has actively pursued increased research funding, leading to the production of high-impact publications, the filing of multiple patents, and the successful hosting of international conferences that connect scholars and practitioners from around the globe.

To further modernize its educational environment, the institute has integrated cutting-edge ICT-enabled smart classrooms. The focus on student development has led to comprehensive initiatives that include advanced training in emerging technologies, preparing students for global job markets, and fostering essential leadership skills. Special attention has been given to supporting first-year students and promoting diversity, ensuring that every student has the opportunity to thrive. Additionally, the institute has rolled out career counseling and enriched co-curricular and extracurricular activities, all aimed at fostering the holistic growth of its students.

On the operational front, the institute has enhanced its efficiency through the implementation of a streamlined paperless ERP system. Faculty and staff have reaped the benefits of structured career progression pathways, access to advanced training opportunities, and improved employee benefits, contributing to a motivated and skilled workforce. Collaborative governance, involving dynamic participation from the Board of Governors, the Internal Quality Assurance Cell (IQAC), and various advisory boards, has ensured that the institute maintains long-term strategic alignment while achieving continuous accreditation. This collaborative approach has firmly established the institute as a premier center of excellence in the realms of education, research, and innovation.

Graphical Representation of Achievements

Figure 1
Total Courses

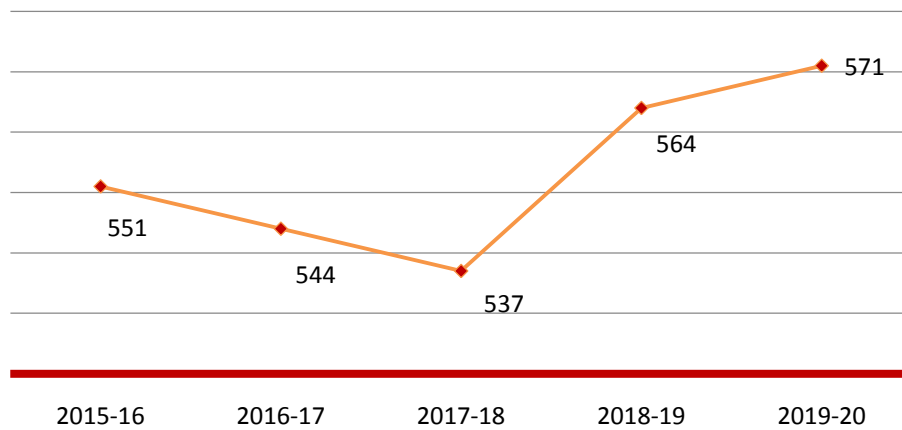


Figure 2
Courses on experiential learning

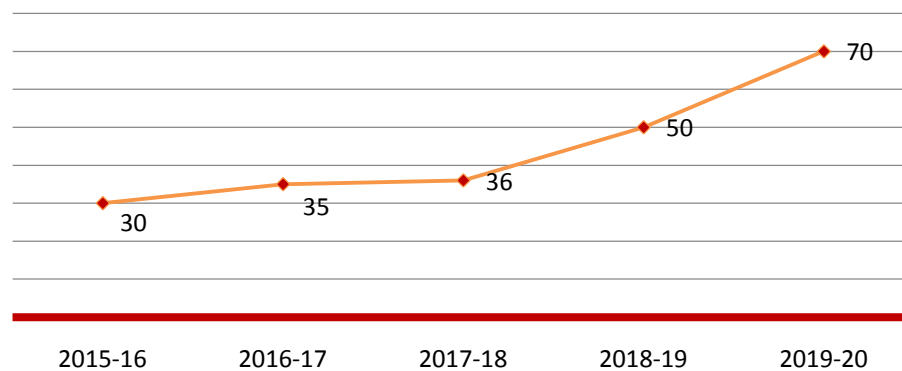


Figure 3
Research Grant
(Rs. in Lakhs)

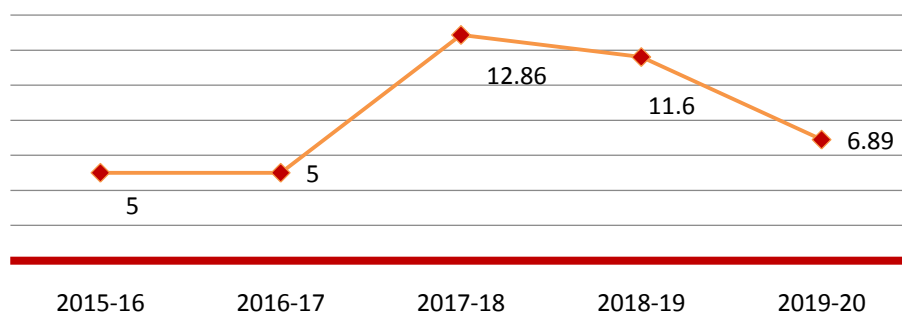


Figure 4
Research Publication

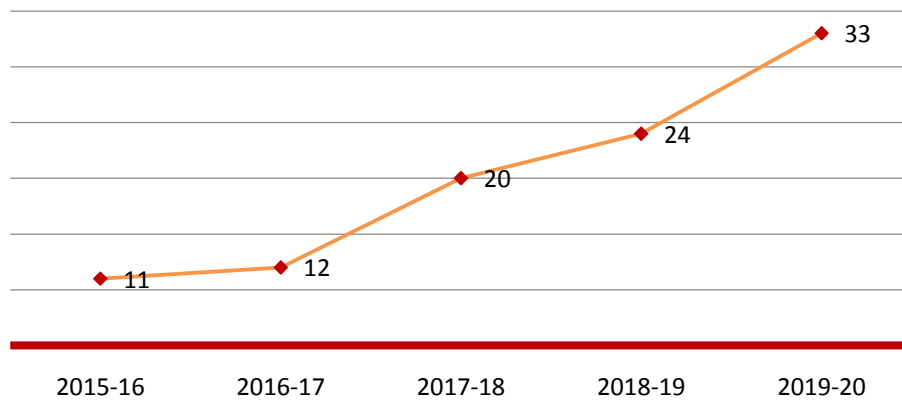


Figure 5
Entrepreneurship Activity

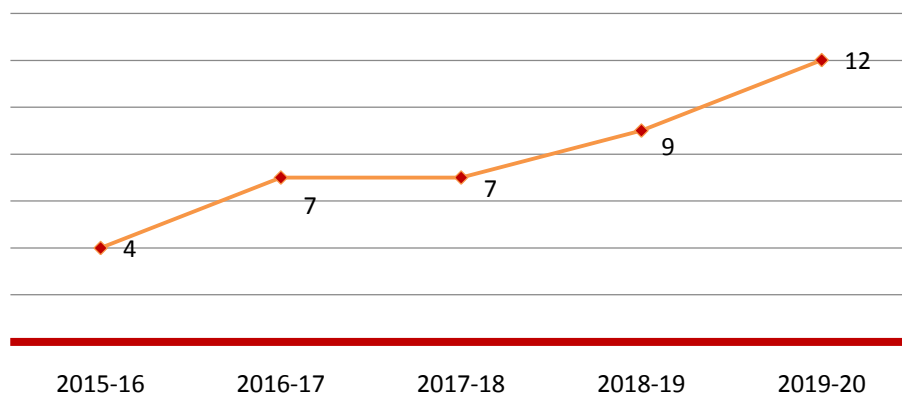


Figure 6
Total Faculty

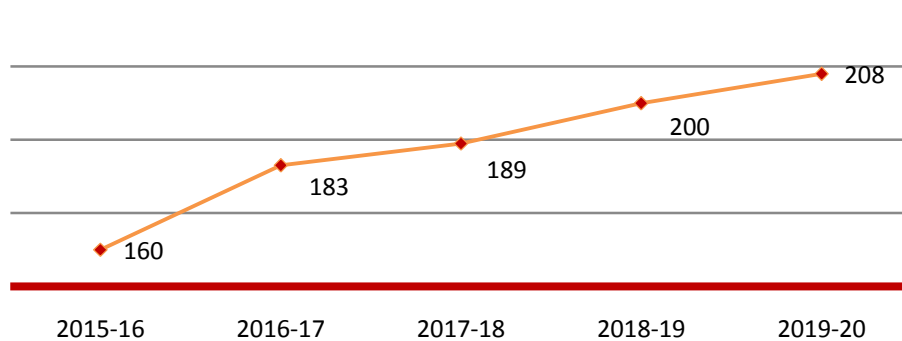


Figure 7
Total PhDs

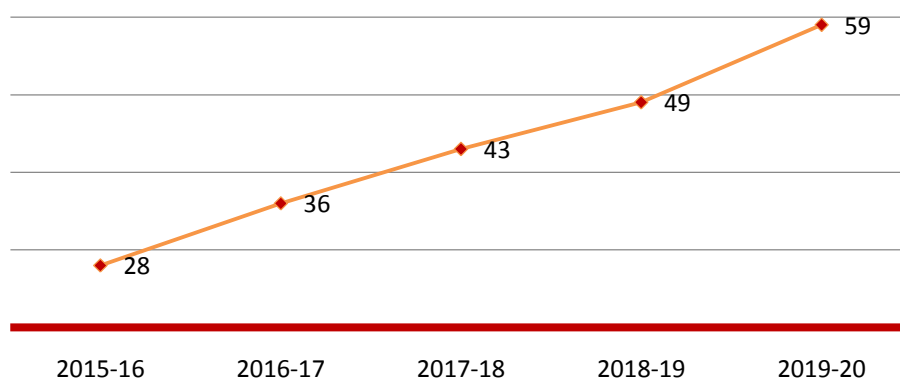


Figure 8
Training programs organized for faculty

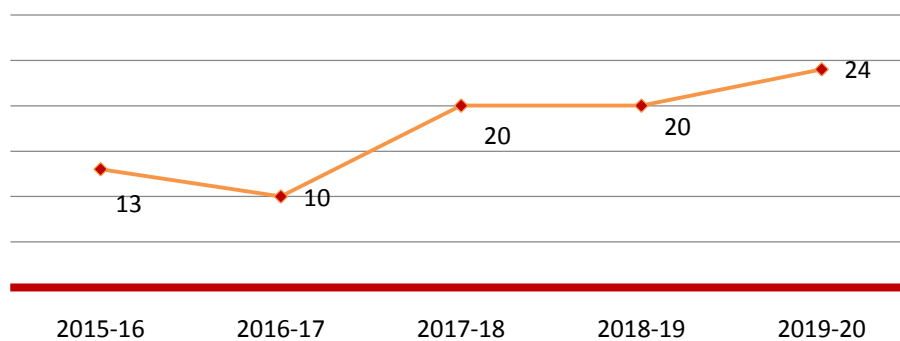


Figure 9
Financial support to faculty for skill enhancement

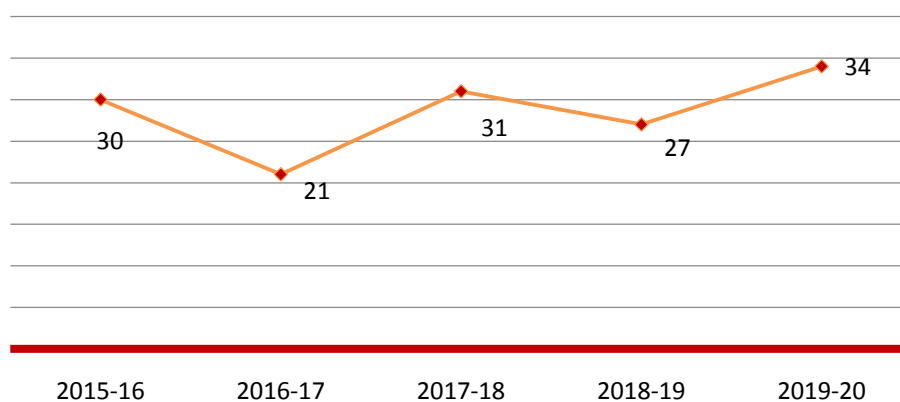


Figure 10
Students benefitted by guidance for competitive examinations

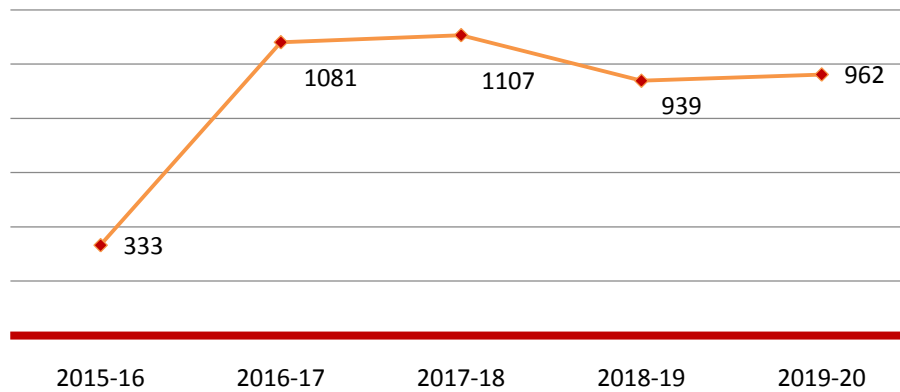


Figure 11
Students qualifying in state/national/ international level examinations

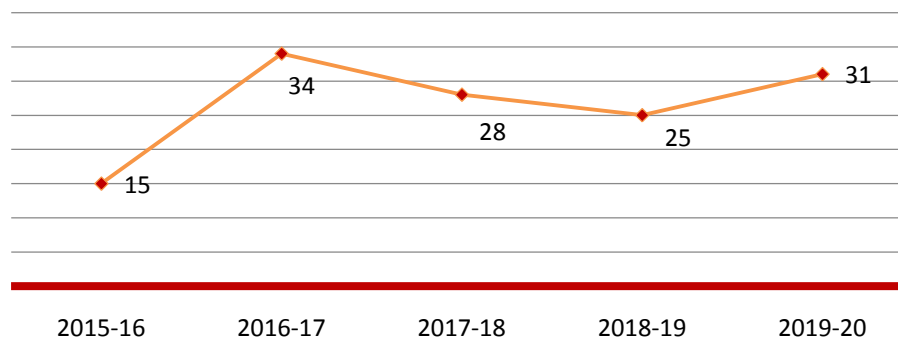


Figure 12
Total Placement

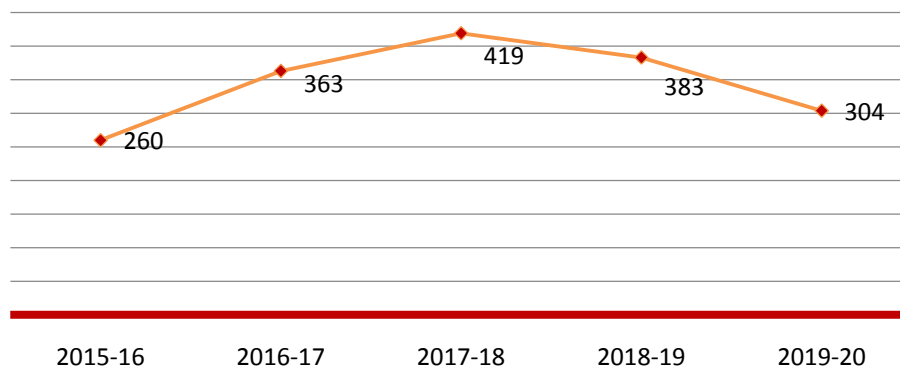


Figure 13
Infrastructure Development

Block B	Block C Additional Workshop	Block B Expansion Block C Expansion Seminar Hall ...	Drawing Hall MOD ROB Lab Seminar Hall Exp....	Exam Control Office Drawing Hall Expansion
2015-16	2016-17	2017-18	2018-19	2019-20

Figure 14
Total Books

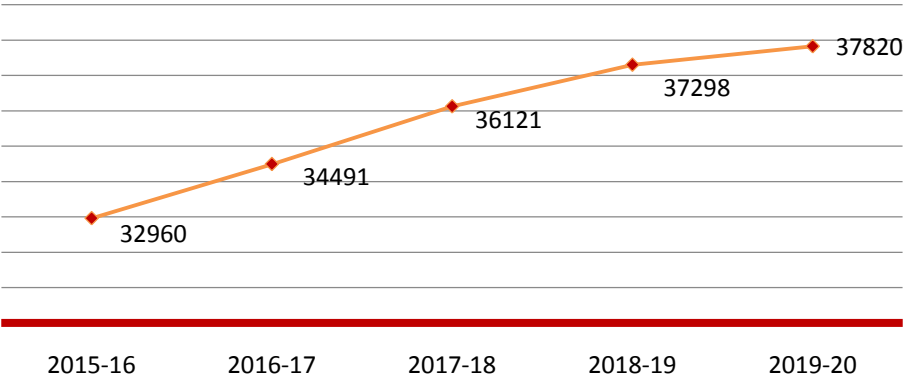
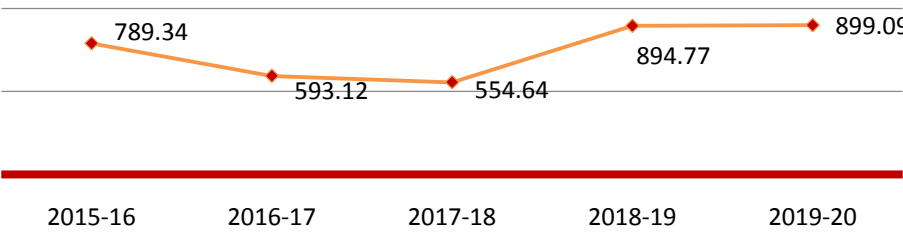


Figure 15
Total Expenditure
(Rs. in lakhs)



Vision of the Strategic Plan 2020-2025

The strategic plan established for the timeframe of 2015-2020 delineated a comprehensive vision for IPS Academy, Institute of Engineering & Science, with the overarching ambition of achieving recognition as a global leader in the spheres of research and education. This ambitious endeavor aimed to attract exceptionally talented students from a plethora of diverse backgrounds, fostering an academic environment that not only encourages excellence and innovation but also emphasizes a profound impact on society.

The vision for the Institute for the period from 2020 to 2025 is designed to build extensively upon the foundations that have been established to date. It seeks to align with the aspirations of the nation as it commemorates 75 years of independence. The New Education Policy presents a comprehensive vision that includes an ambitious target of achieving a 50% Gross Enrollment Ratio (GER) in higher education. Furthermore, the initiative for Atmanirbhar Bharat underscores the urgency of advancing the country's technological capabilities. In this context, the Institute has articulated a vision aimed at fostering a community of students, faculty, staff, and alumni dedicated to the pursuit of academic excellence and the enhancement of the nation's technological advancement.

Moreover, the plan emphasizes the necessity of developing detailed annual activity plans. These plans are intended to systematically enhance institutional capacity, strategically addressing and mitigating existing gaps in resources, infrastructure, and educational offerings. A hallmark of this approach is its commitment to establishing a transparent and inclusive framework that promotes holistic growth across various dimensions of the institution. This involves harnessing pertinent tools and technologies to facilitate balanced development, not only in academic programs but also in administrative processes and student support services.

Internationalization of education also represents a critical component of the strategic plan. The goal is to ensure that the academic programs at IPS Academy meet international standards, fostering a competitive and enriched learning environment. To this end, the plan includes initiatives designed to facilitate faculty and student exchanges with reputable international institutions, thereby broadening learning horizons and enhancing cross-cultural competencies.

Crucially, the strategic plan prioritizes the meaningful engagement of all stakeholders—students, faculty, administrative staff, alumni, and industry partners—in both the strategic development and the implementation processes. This inclusive approach is vital for ensuring that the diverse

perspectives and needs of the community are adequately represented. Additionally, the plan incorporates mechanisms for conducting periodic reviews, which will enable the institution to adaptively refine and improve its strategies as necessary, thus ensuring sustained progress and relevance.

As we advance to the strategic plan for 2020-2025, it remains an essential instrument for directing the institute's future development. This new iteration of the plan not only builds upon past successes but also introduces a structured framework designed to maximize operational effectiveness. It outlines specific, measurable goals to track progress meticulously and offers daily guidance for informed decision-making at all administrative levels. Furthermore, by embedding robust evaluation mechanisms, the plan facilitates ongoing assessment of institutional performance, allowing for timely adjustments to strategies. This responsiveness ensures that institute remains aligned with the rapidly evolving landscape of education, able to address emerging challenges and meet the evolving needs of society effectively.



The main objectives of strategic plans are to:

- i. Articulate a clear vision & mission of the institution and align these with the National Education Policy – 2020.
- ii. Develop annual activity/ capacity building plans to build capacity & remove the gaps.
- iii. Establish a transparent system for holistic, inclusive growth and development of the institute through the application of all relevant tools, technologies to ensure optimal utilization for overall balance growth.
- iv. Develop an operative frame work to promote the internationalization of education, international equivalence and exchange of faculty & students.
- v. Ensure meaningful engagement of all stakeholders in the development and implementation of strategic plan (SP).
- vi. Undertake periodic reviews and appropriate measures for continuous course corrections and further improvement.

It may be noted that the strategic plan is critical to any HEIs and provides road map to the future growth of activities & hence the growth of the institute.

Vision, Mission & Quality Policy of the institute

Vision: To be the fountain head 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 & Science education where in students are urged to develop their professional skills.
- To inculcate dedication, hard work, sincerity, integrity, and ethics in building up overall professional personality of the students & the faculty.
- To inculcate a spirit of entrepreneurship and innovation in passing out students.
- To instigate sponsored research, R & D sponsored projects and consultancy services in technical, educational and industrial area, relevant to the society.
- To instill sensitivity amongst the youth towards the community and environment.

Quality Policy

The Institute is committed to impart Quality Education and Training in the field of basic Education, Engineering and Technology, and other professional courses. It aims to be the world-class institute through continuous improvements. It also caters to the industry & service sector needs by providing innovation through FDPs, Projects & Consultancy and Teaching packages. The institute supports faculty & staff to work as a cohesive team and update their skills and knowledge to match the need of global market.

Professional Ethics & Core Values

It is expected from all stake holders to imbibe the following Professional Ethics & Core values:

The Principles of Professional Ethics for the Intelligence Community serves public-facing and internally-focused purposes. They reflect the core values common to all elements of the Intelligent Community and distinguish the officers and employees of the institute as “Intelligent Professionals.”

The principles—Mission, Truth, Lawfulness, Integrity, Stewardship, Excellence and Diversity—reflect the standard of ethical conduct expected of all Intelligence Community personnel, regardless of individual role or agency affiliation.

It is marked with values like accuracy, fairness, honesty, sincerity, justice, fearlessness, integrity, quest for knowledge, determination, etc. In professional life, the simplest manifestation of truth is in sincerity that can be seen in terms of commitment to work.

It has always been an implicit goal of IPSA, IES. Serving to the cause of social justice, ensuring equity, increasing access to higher education, human resource development and capacity building of individuals, to cater to the needs of economy society and the country as whole, there by the institute contributing to the development of our nation.

Definitions

The various terms, such as, KPI, SI, SG, SP are defined as follows:

- (a) Key Performance Indicators (KPI):** Key Performance Indicator(s) are quantitative/ qualitative measures of how the institution is progressing.
- (b) Strategic Imperatives (SI):** They focus on the key project and objectives within the institute that are high impact activities which can follow a clearly defined systematic approach to be achieved and help the institute to reach its goals within a desired time period (3 to 5 years).
- (c) Strategic Goals (SG):** Strategic Goal is a objective to achieve at the end of 3 to 5 years of strategic planning.
- (d) Strategic Planning (SP):** Is the process of defining the direction, the institute wants to go in the next 3 to 5 years. Strategic plans include longer terms goals, strategic goals and short term goals that describe how the institute shall achieve its strategic goals. Strategic planning process is typically run by discussion maker and stake holders.

The strategic planning can be through a SWOC analysis.

Strategic plan (2020-2025)

Strategic plan is an important tool for our institute. & it ensures the following.

- i) Frame work for effectiveness and sense of direction
- ii) Goals and measurable targets
- iii) Guiding day-to-day actions
- iv) Evaluating progress and changing approaches when moving forward

Strategic Goals (SG)

In pursuit of its mission while upholding the culture and aspirations of the IPSA, IES has established seven comprehensive strategic goals:

- **Achieving Academic Excellence:** Institute is committed to fostering a learning environment that encourages rigorous scholarship, innovative teaching methods, and the pursuit of knowledge. This goal includes implementing best practices in curriculum design, facilitating access to cutting-edge technology and resources, and providing support systems for both students and faculty to excel academically.
- **Development of Infrastructure:** This involves a strategic investment in both physical and human resources to develop and sustain facilities that align with the institute's vision, mission, and core values. This goal focuses on creating state-of-the-art classrooms, laboratories, and collaborative spaces, as well as hiring and training personnel who are dedicated to maintaining these facilities.
- **Holistic Development of Students:** Institute recognizes the importance of nurturing well-rounded individuals. This goal encompasses not only academic success but also the development of soft skills, leadership qualities, and emotional intelligence. Programs and activities that promote physical health, cultural awareness, and civic engagement will be integral to this initiative.
- **Development of Faculty and Technical Staff:** To maintain high educational standards, IES is committed to the continuous professional growth of its faculty and technical staff. This goal includes providing opportunities for advanced training, encouraging participation in conferences and workshops, and establishing mentorship programs to enhance teaching effectiveness and institutional knowledge.

- **Societal and Green Initiatives:** Institute aims to be a responsible institution by actively engaging with the community and adopting sustainable practices. This goal involves implementing outreach programs that support local populations, promoting environmental stewardship on campus, and encouraging research that addresses global challenges such as climate change and social equity.
- **Research and Development:** The institute aspires to be a leader in innovative research, driving advancements that can contribute to both academic knowledge and societal benefit. This goal entails fostering interdisciplinary collaboration among scholars, securing funding for research projects, and disseminating findings through academic journals and conferences.
- **Excellence in Governance and Administration:** Institute is dedicated to maintaining high standards of governance and administrative efficacy. This goal emphasizes the principles of transparency, accountability, quality, and trust in all institutional processes. By fostering an environment of open communication and ethical practices, institute aims to build confidence among its stakeholders and ensure a sustainable future for the institute. Through these strategic goals, institute seeks to strengthen its position as a leading educational institution while remaining aligned with its core mission and values.



Goal 1: Achieving academic excellence

The institute has applied for the grant of autonomy with NoC from the affiliating university RGPV, Bhopal. The minimum eligibility criteria for the award of academic autonomy were to have NBA accreditation for a minimum of 3 programs with a minimum score of 67.5% in each of the accredited programs. The expert committee nominated by UGC, New Delhi visited the institute for 2 days & awarded us autonomy for 10 years from the academic session 2020-21.

The Governing Body (GB), Academic Council (AC), Board of Studies (BoS), and Finance Committee will be constituted as per the norms provided in the UGC autonomy document, dated 18th July 2018. The meetings of the statutory bodies mentioned above will be conducted twice a year for the discussion and approval of matters related to academics and ARR.

The curriculum will be periodically updated to align with AICTE models, NEP 2020 guidelines, and the requirements of competitive exams like GATE and IES. Suggestions from academicians, industry experts, and alumni will be incorporated to ensure its relevance. Interdisciplinary courses, such as liberal learning and foreign language programs, along with emerging technology subjects like AI, data science, and renewable energy, will be introduced to broaden students' perspectives and enhance their employability. Skill-oriented programs with platforms like Coursera and edX will further support global certifications.

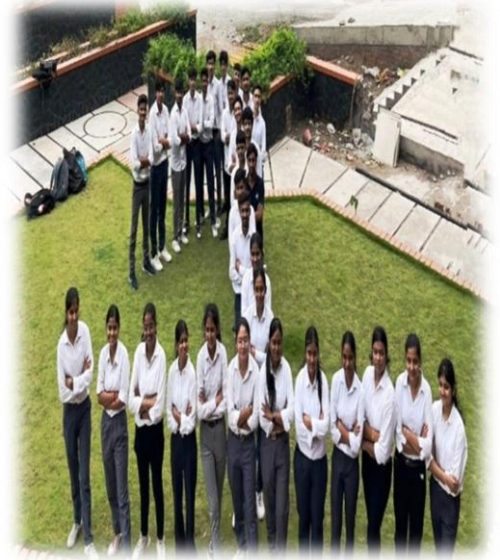
Faculty development will play a pivotal role in academic excellence. The institute will organize regular Faculty Development Programs (FDPs) on modern teaching methodologies, emerging technologies, and research tools to keep the faculty updated. Encouragement of professional memberships with organizations like IEEE, ISTE, IICChE, IGS, IWWA, CSI, ISTE, FSAI, SAE, ICI, etc., and incentivizing research through grants, patents, and publications will enhance their engagement and output. Simultaneously, technology integration in teaching and learning processes will be essential.

Strategic Imperatives (SI)

- Design curriculum and implement examination reforms per AICTE 2019 policy.
- Implement outcome-based education and develop software for COs/POs/PSOs attainment.
- Introduce a choice-based credit system and open electives.
- Include foreign languages, like French or German, as open electives.
- Encourage students and faculty to pursue online certifications (e.g., NPTEL).

Enhanced learning resources, including digital libraries and global research databases, along with tools like MATLAB and ANSYS, will strengthen the academic environment. Student-focused initiatives such as workshops, outcome-based assessments, and mentoring will promote holistic growth. Collaborations with industries for internships, expert lectures, and co-developed courses will connect theoretical knowledge with practical application.

Success will be gauged through improved student performance, increased faculty research output, and participation in global rankings. Implementing these strategies will create a transformative learning environment that prepares students to thrive in a rapidly evolving world.



A way towards excellence...

Goal 2: Development of Infrastructure (Physical and Human Resources)

To align with the institute's vision, mission, and core values, the development of infrastructure—both physical and human resources—must be a key strategic focus. This involves creating state-of-the-art facilities, fostering a sustainable and inclusive environment, and nurturing a skilled workforce that can deliver on the institute's commitment to academic excellence, innovation, and societal impact.

2.1 Physical Infrastructure Development

The institute is dedicated to transforming its physical infrastructure to foster innovative education and pioneering research. This vision encompasses the creation and enhancement of smart classrooms that feature state-of-the-art audiovisual aids, interactive boards, and digital tools, all aimed at enriching the learning experience.

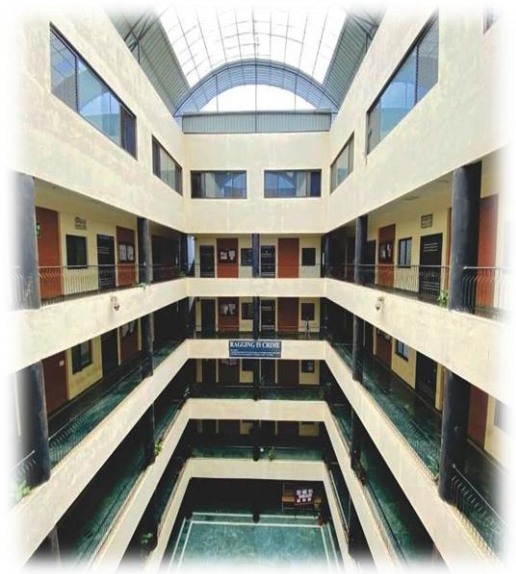
Advanced laboratories, such as industry-sponsored labs and Centers of Excellence, will be established to provide hands-on experience in emerging technologies like artificial intelligence, robotics, renewable energy, and microfluidics. Dedicated R&D spaces and incubation centers, including facilities for startups and entrepreneurial ventures, will further bolster innovation and research. The institute will also invest in green infrastructure to ensure sustainability. Energy-efficient buildings, renewable energy systems, water management systems, and waste management solutions will minimize the environmental footprint while educating stakeholders on sustainable practices. Expanding recreational, cultural, and wellness facilities, such as sports complexes, auditoriums, and wellness centers, will foster holistic development and well-being among students and staff.

Strategic Imperatives (SI)

- Upgrade laboratories with the latest technology.
- Establish a patent cell and incubation center.
- Equip classrooms with LCD projectors & CCTV.
- Enhance internet bandwidth to at least 1Gbps.
- Improve library resources and introduce a digital library; allocate funds for research materials.
- Auditoriums

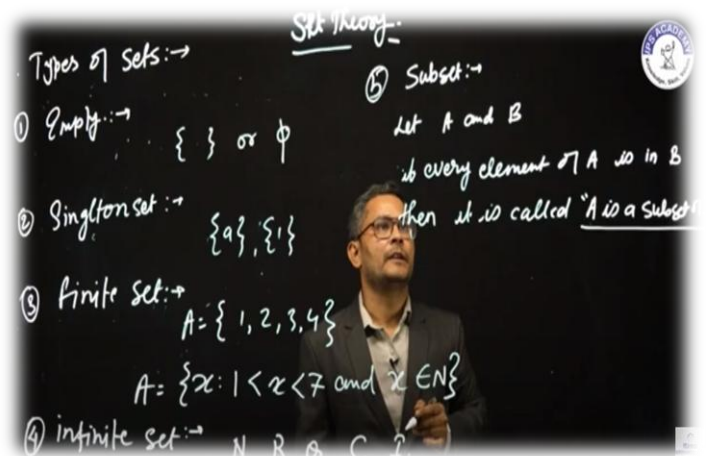
2.2 Human Resource Development

Human resources will play a pivotal role in determining the success of the institute. It will be essential to prioritize faculty development by providing rich and engaging continuous learning opportunities. This will be achieved through well-structured Faculty Development Programs (FDPs), Short Term Training Programs (STTPs), and training sessions, while encouraging participation in prestigious international conferences. In addition, a strategic emphasis will be placed on recruiting highly qualified, diverse faculty members with expertise in interdisciplinary fields, which will not only bolster the academic programs but also enhance the overall research output of the institute.



2.3 Sustainability and Maintenance

To maintain infrastructure in line with the institute's core values, regular audits of physical facilities, including energy, water, and waste management systems, will be conducted. The adoption of smart campus technologies, such as IoT-enabled monitoring systems, will optimize resource usage and improve maintenance efficiency. A dedicated maintenance team with defined roles and responsibilities will ensure the upkeep of physical infrastructure.



Goal 3: Holistic Development of Students

Holistic development focuses on nurturing students' intellectual, emotional, physical, social, and ethical dimensions to prepare them for professional success and responsible citizenship. IPS Academy, Institute of Engineering & Science will achieve this by implementing comprehensive programs integrating academics, co-curricular and extracurricular activities, skill-building initiatives, and mental and physical wellness programs.

3.1 Academic Excellence and Critical Thinking

Providing students with a rigorous and dynamic curriculum is essential for fostering intellectual growth and enhancing problem-solving abilities. Courses that integrate interdisciplinary learning, real-world applications, and research-oriented projects are designed to encourage critical thinking and creativity. Programs such as liberal learning courses, foreign languages, and technical workshops will equip students with knowledge that extends beyond traditional boundaries. Additionally, outcome-based education, with its focus on case studies, live projects, and internships, will effectively bridge the gap between theory and practice, preparing students for future success.

3.2 Emotional and Mental Wellness

The institute will place a strong emphasis on enhancing students' emotional well-being by introducing a comprehensive curriculum that includes courses focused on stress management, psychology, and mindfulness practices. These courses will not only educate students about the psychological aspects of stress and mental health but also equip them with practical tools to manage their emotions effectively.

Strategic Imperatives (SI)

- To provide state-of-the-art sports and cultural facilities to all students
- To create MoUs for student internships.
- To enhance employability skills by offering open elective courses and additional credit opportunities.
- To enhance placement and higher studies, focusing on innovation and entrepreneurship.
- Increase the institution's visibility in academics, industry, and society
- Leverage alumni for placements, mock interviews, internships, and expert talks, as they serve on Advisory Boards and BoS.

To foster a supportive community, the institute will organize regular workshops dedicated to mental health awareness. These sessions will cover various topics, such as coping strategies, the importance of self-care, and recognizing signs of mental distress. Additionally, the availability of confidential counseling services will ensure that students have access to professional support when needed. The establishment of peer support networks will further promote a sense of belonging and understanding among students, allowing them to share their experiences and challenges in a safe environment.



Moreover, the institute will actively encourage the development of a growth mindset and resilience through several initiatives. Mentoring programs will pair students with experienced mentors who can guide them through academic and personal challenges, fostering a sense of confidence and self-efficacy. Leadership workshops will also be offered, aimed at strengthening students' problem-solving skills and ability to navigate obstacles, ultimately preparing them to face future challenges with confidence and determination.

3.3 Physical Development and Fitness

Physical activities are essential for a healthy and balanced life. The institute will promote sports and fitness by providing modern facilities such as gymnasiums, sports complexes, and yoga. Organizing regular sports competitions, fitness camps, and outdoor activities like trekking and adventure sports will enhance students' physical stamina, teamwork, and leadership skills.



3.4 Social and Ethical Responsibility

Instilling a profound sense of social responsibility will be essential for ensuring holistic growth among students in the future. Programs such as Unnat Bharat Abhiyan, National Cadet Corps (NCC), and the National Service Scheme (NSS) will play a crucial role in motivating students to actively engage in various forms of community service. These initiatives will address pressing

societal issues, including education, healthcare, and environmental sustainability, allowing students to make meaningful contributions to their communities.

Students will have the opportunity to participate in a variety of activities, such as organizing clean drives to promote environmental awareness and support sustainable practices, conducting rural outreach programs that aim to uplift underprivileged communities, and engaging in awareness campaigns addressing critical issues like public health challenges and the importance of education. Such experiences will not only enhance their understanding of social dynamics but also cultivate essential life skills, including empathy, leadership, and effective problem-solving abilities.



The institute will introduce new courses on ethics to its curriculum. These courses will encourage students to engage in meaningful discussions about critical societal issues such as inequality, climate change, and social justice. Through these dialogues, students will refine their moral judgment, equipping them to make informed and ethical decisions as future leaders. This comprehensive approach to social responsibility will empower students to become proactive citizens who make a positive contribution to the world around them.

3.5 Co-Curricular and Extracurricular Engagement

A comprehensive schedule of co-curricular and extracurricular activities will serve to enhance and enrich academic learning in the future. Various platforms, such as technical competitions like Innovita, Neev, Sameeksha, Srijun and Udaan etc., will offer students the opportunity to engage in hands-on experiences that foster creativity and technical skills. Additionally, cultural events will celebrate diversity and encourage artistic expression, while TEDx talks will invite thought leaders to share innovative ideas and



inspire critical discourse among students.

Participating in SPIC MACAY programs will promote the appreciation of India's rich cultural heritage through traditional art forms, allowing students to explore their own creative potentials. Leadership programs will be designed to cultivate essential skills, encouraging students to engage in debates that enhance their critical thinking and communication abilities. Furthermore, industrial visits will provide firsthand insights into real-world business practices, bridging the gap between theoretical knowledge and practical application. Professional internships will equip students with invaluable experience, allowing them to tackle genuine challenges in their fields of interest while preparing them for future careers. Overall, this holistic approach will empower students to develop into well-rounded individuals ready to face the complexities of the modern world.



3.6 Measuring and Supporting Development

The institute aims to ensure the holistic development of its students through a structured mentorship system that provides personalized academic and personal guidance. Regular feedback, assessments, and progress tracking will be carried out to promote continuous improvement. Achievements in academics, sports, innovation, and cultural activities will be recognized to foster motivation and a sense of accomplishment.

To strengthen innovation and entrepreneurship, the institute will empower students to develop entrepreneurial skills and launch startups through the establishment of the AICTE Idea Lab and an Incubation Cell, supported by the Ministry of Micro, Small and Medium Enterprises (MSME), Government of India. Students will also be encouraged to participate in national-level competitions such as Smart India Hackathon (SIH) and BAJA SAE India to enhance creativity, teamwork, and problem-solving abilities.

An annual Graduation Day Ceremony will be organized to celebrate the achievements of graduating students, where outstanding performers will be honored for their excellence. Through these initiatives, the institute will nurture intellectual, emotional, social, and physical growth, preparing students to excel in their careers and contribute meaningfully to society.



Goal 4: Development of Faculty & Technical Staff

The development of faculty and technical staff will be a foundational aspect of the institute's strategic objectives, reflecting a deep-seated commitment to nurturing a culture that prioritizes excellence across teaching, research, and innovation. This overarching goal will focus on the comprehensive recruitment of highly qualified faculty members, strictly adhering to college code 30 and 28 respectively the regulations established by the AICTE (All India Council for Technical Education) and UGC (University Grants Commission). The recruitment strategy will specifically aim to attract candidates who hold Ph.D. degrees, thereby ensuring that the institute secures the best and brightest academic talent in the country.

In addition to bringing in external scholars, the institute will create a supportive environment that encourages current in-house faculty to pursue their own doctoral research. To facilitate this, the institute will implement a robust set of incentives, including financial assistance for tuition and research expenses, additional research leave, and a clear path to promotions for faculty who successfully complete their Ph.D. programs. This commitment will not only enhance the individual expertise of the faculty but will also significantly strengthen the institution's academic reputation and its appeal to prospective students and researchers. To complement the academic qualifications, there will be a strategic focus on recruiting faculty members with substantial industrial experience. This emphasis is critical for developing a curriculum that is not only academically rigorous but also rich in practical application, thereby equipping students with the essential skills and knowledge needed for success in their future careers.

Moreover, the institute will actively promote continuous professional growth for its faculty members by providing ample opportunities for participation in Faculty Development Programs (FDPs), Short-Term Training Programs (STTPs), workshops, and seminars. These initiatives will cover a wide array of topics, ranging from innovative teaching methodologies to the latest

Strategic Imperatives (SI)

- Faculty will be recruited under college code 30 and 28 in accordance with AICTE/UGC norms.
- In-house faculty will be encouraged to engage in research.
- Faculty will be encouraged to participate in and lead FDPs/STTPs/workshops/seminars.
- Incentives will be awarded for research publications in SCI/WoS and UGC-approved refereed journals.
- Faculty will receive support as seed money fund for their involvement in R&D projects and consultancy work.

advancements in technology and research practices. Additionally, faculty members will be encouraged to take an active role in organizing these events, fostering a dynamic platform for collaboration and sharing of best practices within the academic community.

Recognizing the pivotal role of research in higher education, the institute will implement a system of rewards to incentivize faculty who publish their research in high-impact journals that are indexed in the Science Citation Index (SCI), Web of Science (WoS), and adhere to UGC-approved standards. This will not only promote a strong research culture but will also enhance the visibility and impact of the faculty's contributions to their respective fields.

Furthermore, faculty will be encouraged to pursue sponsored research and consultancy projects, which will serve as a vital bridge between academic inquiry and real-world application. By fostering partnerships with industry leaders and governmental agencies, the institute will facilitate research that directly addresses societal challenges and market needs, thereby enhancing the relevance of academic work in practical settings. Collectively, these meticulously designed initiatives will ensure the ongoing and holistic development of faculty and technical staff. In doing so, the institute will significantly advance its vision of becoming a premier hub for academic excellence and groundbreaking research innovation, ultimately uplifting the educational landscape and contributing meaningfully to society at large.



Goal 5: Societal and Green Initiatives

The institute will be deeply committed to societal and green initiatives, aiming to set a benchmark for community engagement and environmental stewardship within the region. Through the adoption of various villages, the institute will create opportunities for direct collaboration with local communities, allowing for the identification of pressing social and environmental issues. This cooperative approach will facilitate the development of targeted strategies that foster sustainable development tailored to the specific needs of each community.

Students will have the opportunity to undertake a diverse range of community-based projects designed to provide innovative solutions to real-world challenges. These projects will not only enhance their academic understanding but will also empower them to make a tangible societal impact. By bridging the gap between theoretical knowledge and practical application, students will become active participants in their communities, addressing issues such as poverty, education, and environmental degradation.

In its pursuit of sustainability, the institute will implement comprehensive strategies aimed at creating an eco-friendly environment. This will include significant efforts to reduce or eliminate plastic usage across campus and in local communities, encouraging the responsible consumption of resources. The promotion of renewable energy sources, such as solar power, will be prioritized, as will the implementation of rainwater harvesting and advanced water recycling systems. These initiatives will not only minimize the environmental footprint of the institute but will also serve as a model for best practices that others can replicate.

Strategic Imperatives (SI)

- To encourage students to take up community-based projects to help find remedies to plaguing issues.
- To create an eco-friendly environment by reducing/banning plastic usage.
- To take up projects related to renewable sources of power (solar power will serve as alternate sources of power).
- To initiate special initiatives on rainwater harvesting and recycling of water.
- To develop students who will create awareness about road safety, health & hygiene, and voter awareness rallies, etc.

In addition, the institute will launch a series of awareness campaigns focused on critical issues such as road safety, health, hygiene, and active voter participation. These campaigns will be designed to educate and empower both students and members of the local communities, encouraging them to adopt responsible and proactive lifestyles that contribute to the well-being of society as a whole.

To ensure the effectiveness and sustainability of these initiatives, the institute will conduct regular Green, Energy, and Environment audits. These audits will provide the necessary accountability and facilitate continuous improvement in the institute's efforts to achieve its environmental and social goals. By fostering a culture of sustainability and responsibility, these initiatives will collectively position the institute as a prominent leader in the promotion of societal welfare and environmental sustainability. Through these extensive efforts, the institute will not only enhance its own practices but also inspire positive change throughout the region.



Goal 6: Research & Development

Research is a cornerstone of IPS Academy, Institute of Engineering and Science's strategic vision for 2020-25, as it aligns with our commitment to academic excellence, societal impact, and innovation. As we look ahead, our focus will be on enhancing our research capabilities in diverse fields, particularly in micro-fluidics, health applications, and seismic analysis, which have already established our institution as a leader in these domains. To achieve our ambitious research goals, we will strengthen our existing collaborations with international partners, such as universities in Sri Lanka, Russia, Turkey, Japan, and Ethiopia, and expand our network to include more leading research institutions. This collaborative approach will not only enhance the quality of our research but also provide our faculty and students with valuable opportunities for knowledge exchange and joint projects.

To support our research initiatives, we will invest in state-of-the-art laboratories and cutting-edge technology, ensuring our researchers have access to the best resources available. Faculty development programs will be implemented to cultivate a culture of continuous learning, equipping our academic staff with the skills and knowledge needed to lead impactful research projects. By emphasizing interdisciplinary collaboration, we will encourage the integration of diverse perspectives and expertise, fostering innovation and creativity in our research endeavors.

Strategic Imperatives (SI)

- Increase the number of high-quality publications in reputed national and international journals, with a focus on impactful research areas aligned with global and local challenges.
- Boost funded projects by collaborating with government, industry, and international partners, while helping faculty secure research grants.
- Strengthen industry partnerships to create sponsored research labs and collaborate on projects focused on sustainable and emerging technologies.
- Enhance the institute's research infrastructure by creating centralized facilities and providing 24/7 access to resources for faculty and students to promote efficient research.
- To ensure that 50% of the faculty engage in active international collaborations.

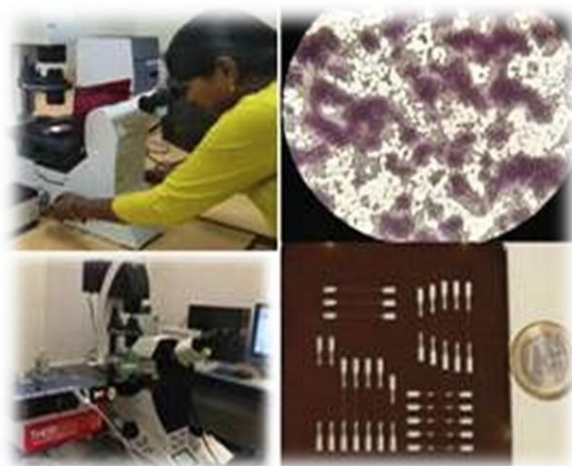
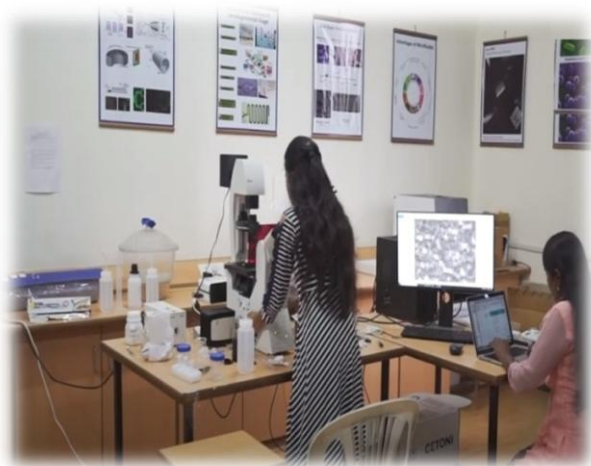
Our strategic goal for research also prioritizes community engagement, ensuring that our research findings translate into real-world applications that benefit society. By focusing on sustainable development, health technologies, and smart systems, we aim to address pressing global challenges while aligning our

research with national priorities. This commitment to applied research will enhance our impact on the local community and contribute to broader societal well-being.



Moreover, we aim to boost the publication of research papers and the acquisition of patents, reflecting our dedication to intellectual property and the dissemination of knowledge. Encouraging our faculty and students to engage in pioneering research projects, such as those funded by SERB and DST, will further strengthen our reputation as an institution of innovation. Our ongoing projects on drug diffusion studies, IoT-based health monitoring systems, and the design of electric all-terrain vehicles exemplify our commitment to cutting-edge research that addresses contemporary issues.

A supportive ecosystem with positive reinforcement will inspire faculty and students to excel in their respective domains. Furthermore, aiming to achieve recognition in key disciplines reflects a forward-looking vision, requiring consistent efforts in research quality, impactful publications, industry linkages, and global visibility. These measures will position IPS Academy Institute of Engineering and Science as a leader in education and research, fostering innovation and making significant contributions to society while elevating its standing in academic and professional communities.



Goal 7: Governance and Administration

The institute will be dedicated to achieving excellence in governance and administration by embedding the principles of transparency, accountability, quality, and trust into its operational framework. This vision will ensure that all administrative processes are streamlined, efficient, and equitable, fostering an environment of integrity and trustworthiness. By establishing well-defined rules, policies, and simplified procedures, the institute will ensure clarity and uniformity in its operations, making processes accessible and fair for all stakeholders.

Decentralization will play a crucial role in this framework, with powers, including financial authority, delegated to various departments and individuals. This approach will not only empower stakeholders but also ensure accountability through structured oversight and transparent practices. The institute will further cultivate a culture of excellence by recognizing and rewarding innovation, leadership, and impactful initiatives, motivating its community to excel in their roles.

In addition, streamlining budgeting and financial auditing processes will ensure the optimal use of resources and uphold financial integrity. These collective efforts in governance and administration will create a robust system that supports the institute's mission of academic and institutional excellence, establishing it as a model for effective and ethical administration.

Strategic Imperatives (SI)

- Establish clear rules, policies, and straightforward procedures for administration.
- Decentralize financial powers with accountability and transparency.
- Reward excellence in innovation, leadership, and initiatives.
- Streamline budgeting and financial auditing processes.



SWOC Analysis

The more commonly used practice in strategic planning is to do SWOC (Strength, Weaknesses, Opportunity, and Challenging) analysis.

SWOC Analysis is divided into two parts:

The Internal Environment where strengths & weaknesses are identified and the analysis of the external environment where opportunities and challenges are determined.

The silent points emerging out of SWOC analysis of the institute are listed below:

Strengths

- Excellent local and regional reputation well established national recognition.
- Learner centric approach.
- Qualified faculty with rich experience/ dedication/ commitment.
- Vibrant training & placement cell.
- Mentoring & counseling.
- Industry collaboration.
- Research Publication in quality journals (i.e. SCI / WoS/ UGC list I & II).
- Meritorious students with geographical diversity.
- Continuous up gradation of curriculum.
- Well disciplined conducive academic environment.
- Active linkages with nearby institutions, industries & research organizations.
- Continuous emphasis on faculty & staff development.

Weaknesses

- Only few faculty members are with Ph.D degree.
- Less number of faculties at senior positions.
- Relatively less exposure to global experience amongst faculty & students.
- Less number of specialized laboratories with state of art equipment.
- Less faculty members with faculty exposure.
- Students with average communication skills.
- Limited R & D projects and consultancy activity.
- No research centre recognized by affiliated university (RGPV, Bhopal), in spite of the fact that AC/ GB has approved the recognition as a Ph.D. centre. It may be noted that the institute has submitted the application for the same umpteen numbers of times.

Opportunities

- Eligibility to become an autonomous institution.
- Increase in number of UG programs.
- Global growth in demand of professionals.
- Support for career & self development of faculty members.
- Catering to the need of industry by customized program in services to generate alternative sources of revenue.
- Developing interdisciplinary programs.
- Foreign institute are looking towards India for academic & research collaboration.
- Establishing new as well as straightening, existing, national & international linkages.
- Recognition of faculty members as fellows of national and international academic and professional societies/ bodies.
- Straightening, Research and Innovation by mobilizing funds through different funding agencies.
- Establishing a global presence through a large pool of alumni in diverse industries and institutions & their support for knowledge sharing, projects, internships & placement.
- Outcome based education.
- Internationalization of various activities.
- Placement opportunities in Tier-I industries.
- Skill developing programs and trainings for students.

Challenges

- Establishment of educational institutions of repute in the vicinity providing local/ regional and global competition.
- Recruitment & retention of competent faculty members.
- Entry of many self financing/ deemed universities.
- To establish a strong provider of consulting and training services.
- Rapid changes in technology in all the disciplines and correspondingly changing expectations from industry and society.
- Getting more avenues of placement of students in economies at national/ global level.

