Estd : 1984

PSNA College of Engineering & Technology Dindigul

INSTITUTION INNOVATION & STARTUP POLICY

NOVEMBER 2020

VERSION 1.0

P.S.N.A COLLEGE OF ENGG & TECH Dindigul

PRINCIPAL
P.S.N.A College of Engg & Tech.
Dindigul - 624 622.

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PREFACE

PSNA College of Engineering & Technology is located in Dindigul outskirts which was started in 1984 with a vision to provide world class engineering education. It is 37 years old established quality technical institution matching International standards. It has been making rapid strides in all fronts and setting new benchmarks. It is affiliated to Anna University, Chennai and Accredited with 'A' grade by NAAC. All 7 UG Programmes along with MBA and MCA are accredited by National Board of Accreditation, New Delhi and 8 PG Programmes. The Institution is established to provide Outcome based education to develop graduates with desirable professional attributes. The Research Excellence in all Departments are being recognized as research centres by Anna University, Chennai.

SPECIAL FEATURES

- A sylvan campus extending to an area of 150 acres with built up area of 11,95,548 sq.ft.
- 6511 Students, 381 Faculty members with 173 Ph.D holders and 365 Supporting Staff members.
- Established Research Centres in collaboration with leading MNCs.
- Interdisciplinary Approach such as Bio Medical Engineering and interdisciplinary projects.
- Exclusive academic block for each department with separate computer labs and department libraries.
- 5 Air-conditioned Conference Halls and 3 Air-conditioned Auditoriums.
- 1650 networked terminals with 520 Mbps (1:1) internet leased line connectivity and Wi-Fi enabled campus HT supply backup capacity generators

- Apart from regular curricula, value added programmes and certificate courses are offered in each department.
- Institution Innovation Council, Human Resource and Development Cell (HRDC), Entrepreneur Development Cell, Continuing Education Cell, Placement Cell and Industry Institution Interaction Cell are effectively functioning for students.
- Excellent infrastructural facilities for sports to the extent of conducting International and National events.
- Offers Scholarships to meritorious students.
- Offers Foreign Language Classes, Business English Certificate Course (BEC) of Cambridge University in association with EBEK Language and State-of-the-art Laboratories for the interested students.

VISION

To inspire and nurture the younger minds towards innovation and entrepreneurship which results in wealth creation and technology-based Startups.

MISSION

1. Creating a conducive environment for development in the thrust areas of Engineering and Technology
2. Establishing an ecosystem for support with Mentorship, Angel Investors and Venture Capitalists
3. Integrating with organizations, such as government Industry and Alumni network to meet out emerging demands and needs
4. Facilitating a platform for development of ideation into commercialization

SHORT TERM GOALS:

1. To ***develop societal problem-solving skills*** among students through their creativity and design thinking abilities.
2. To ***arrange periodical field visits*** in nearby places of interests and get them exposed with challenges in daily routines.
3. To ***organize My Idea events*** periodically in order to improve students' problem-solving skill.
4. To ***motivate students' participation*** in various National and International competitions viz. pitch festival, Hackathon, Google Startup contest and other similar events.
5. To ***encourage faculty*** in organizing events on innovation, entrepreneurship and IPR in order to enhance their Mentorship capabilities.
6. To ***support every innovation*** for Patent and fabrication through incubation.
7. To ***boost students and faculty*** eligibility for obtaining seed money and incentives.
8. To ***strengthen Institute-Industry interaction*** for establishing incubation facility and investors' support.

LONG TERM GOALS:

1. To associate our students in entrepreneurial ventures viz. **Innovators / Creators / Market makers / Expanders / Scalers**.
2. To formulate our students' ideas to entrepreneurial values through our **Innovation Hub**.
3. To strengthen our Institute-Industry partnerships for achieving **Sustainable Development.**
4. To collaborate with various government and private funding organisations for **Fiscal Growth and Expansion**.
5. To enhance the research quality for obtaining **Patents / Copyrights / Trademarks.**
6. To establish **Technology Business Incubator** for promoting innovations for successful Start-ups.

IISP COMMITTEE:

President

Dr. D. Vasudevan, Principal

Vice President

Dr. N. Jawahar, Dean – Research

IIC Head

Dr. A. Vincent Antony Kumar, Professor & Head/IT

EDC Head

Dr. S. Manimaran, Professor & Head/MBA & EDC

Convener & NISP Coordinator

Dr. T. Hemalatha, Professor & Head/AI&DS

IPR Cell Coordinator

Mr. J. E. Moshe Dayan M.E, Assistant Professor/EEE

Advisory Consultant

Mr. Meyyappan, Top Freshers Technologies Pvt. Ltd., Chennai.

Mr. Dhanus, Director & Hub Coordinator, TN-EDII, Salem.

Mr. N. Senthil Kumaran, Engineering Contractors, Dindigul.

Advisory Member

Mr. Gowtham, Field Coordinator, TN-EDII, Salem

Mr. Sudeesh Rajendran, R3S Engineers and Contractors, Trichy

Coordinators

Dr. K. Srinivasan, Associate Professor/Civil

Dr. M. Arul Prasanna, Associate Professor/EEE

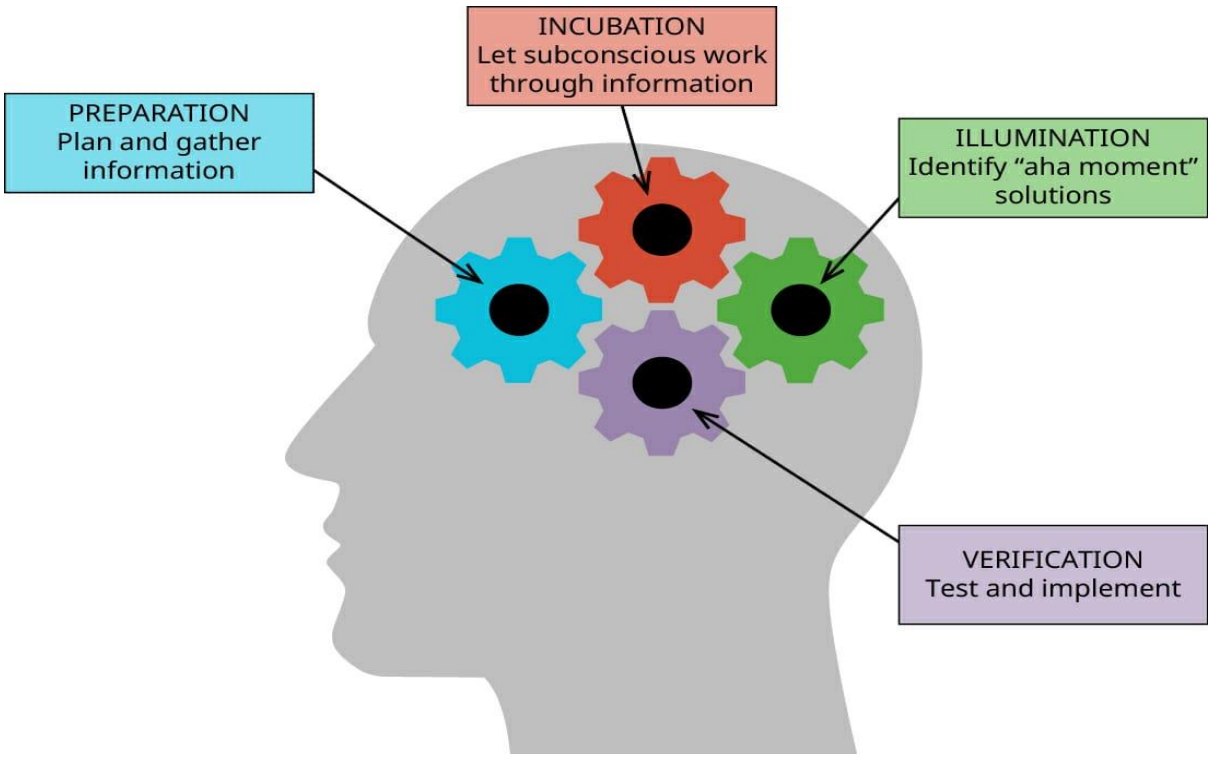
Dr. S. Satheesh Babu, Associate Professor/CSE

Members

Dr. K. Meena Alias Jeyanthi, Professor/ECE
Dr. K. Muthumayil, Professor/IT
Dr. S. Sriram, Professor/BME
Mr. M. Nagaraja, Assistant Professor/Mech

THRUST AREAS:

- ✓ Industry 4.0 with focus on additive manufacturing
- ✓ Bio compatible Nano fluids/materials
- ✓ Bio fuels and bio fuel engines
- ✓ Electric Vehicles and Battery Management Systems
- ✓ Industrial IoT with Automation
- ✓ Robotics
- ✓ Green Energy Technologies
- ✓ Artificial Intelligence (AI) enabled smart applications
- ✓ Cyber Security
- ✓ Computer Vision
- ✓ Data Science
- ✓ Bio-Design & Bio-Mechanics
- ✓ Materials Science and Engineering
- ✓ AI/NN for Sustainable Technology



STRATEGIES & NORMS. FOR START-UPS:

❖ **Institution Innovation Council**

Our institution has established the innovation council as directed by the guidelines proposed by MHRD and separate committees are constituted for NISP Adoption, IPR Cell and Startup cell which is guided by IIC Head. A committee is comprised for each cell and a faculty member from each department is a part of each committee. The activities are convened in the institution as per the IIC activity calendar for every academic year.

❖ **Institutional Support**

PSNA College of Engineering & Technology is dedicated to teaching, research and spreading of knowledge to the student community and for the betterment of the society. The college was established in the year 1984 to facilitate and promote studies and research in emerging areas of higher education with focus on new frontiers of engineering and technology and management studies and also to achieve excellence in these and connected fields.

The institution is providing support in all directions in the form of deputing faculty members and students to take part actively in producing and disseminating knowledge where there is inherent need to encourage creativity and scholarly works for the developments of new and useful materials, devices, processes, other intellectual property and entrepreneurial activities. It provides support for freedom to create & innovate and to connect with other people to discuss ideas, problems, challenges and solutions. Our system practices four steps of creative thinking process meticulously.

In our college, faculty members, research scholars and the students are engaged in research and development work of considerable importance. Such works may lead to evolution of intellectual property know-how, copy-rights, designs, instruments, devices, processes, specimen, software and other inventions having potential for commercialization with proper registration as per IPR policy under different Acts enacted by the Government for protection of intellectual properties. The creation of intellectual property not only contributes to the professional development of the individuals involved, but also enhances the reputation of the college, provides educational opportunities for students and promotes public welfare. Particularly, a commercial exploitation of the intellectual property can be of considerable socio-economic benefit to the country. The college, therefore, supports and encourages the efforts directed towards bringing the benefits of college research in diverse fields of knowledge to the public usage and benefit while protecting the Inventions made by the scholars. To meet the goals, the college is committed to provide an environment where scholarship and innovation can flourish and those participating in these endeavors can be suitably rewarded for their efforts. It also recognizes that certain intellectual properties can be developed as a result of innovation, ideas, research outcomes and the facilities provided by the college and there exists a special relationship between the college and its staff and scholars. At the discretion of the individuals to develop the

knowledge, the request for the registration of a patent/copy-right will be considered prior to its commercialization.

This policy shall govern the intellectual property rights of the college, faculty members, research scholars, students and other connected with the work, product, ideas and inventions created in connection with the activities of the college.

❖ **Seed Funding**

Our institution may provide seed money to the students' project if it is an innovation, recommended by the mentors and respective head of the department. Upon approval by the Head of the institution the seed money is offered to the aspiring students for further prototyping the proof of concept into a product.

❖ **Mentorship & Guidance**

Faculty members across all departments are well trained through FDPs, SDPs, IIC Events, and Hackathon etc. Every department has set of well-trained faculty members who mentored the students' innovative projects so that the idea can be prototyped and commercialized in a well-structured manner.

❖ **Institutional IPR Policy**

The purpose of IPR policy is to promote the vision by making inventions, copyrightable works and other intellectual property that can be created by the faculty, students, researchers, trainees and others who are at or associated with the college for the benefit of the public and it also provides a fair allocation of the financial costs and rewards associated with them. The college has formulated this intellectual property policy for managing the Intellectual Property right to

- Raise, stimulate and encourage creative activities in the widest sense in the areas of Technology, Science and Management.
- Guard the legitimate inventions of the college, faculty, scholars, students and

other members of the college and the society at large and to help resolving possible conflicts of opposing interests.

- Streamline a clear administrative system for the ownership control and assignment of intellectual properties and sharing of the revenues generated by the intellectual properties developed and owned by the college.
- Develop an organization structure and procedures through which inventions and discoveries made in the course of college research may be made readily available to the public through channels of commerce.
- Form standards for determining the rights and obligations of the college, creator of intellectual property (for example inventions, developers, authors) and their sponsors with respect to inventions, discoveries and works created at the college.
- Enable the college to secure sponsored research funding at all levels of research and Enrich the reputation of the college as an academic research institution and a member of society by pursuing the highest ideals of scholarship and by teaching and conferring the benefits of that scholarship and teaching in the college community and society.

The IPR policy provides the mechanism for preservation and use of intellectual property and procedures through which invention and discoveries made in the course of college research are disseminated to the public through the transfer of technology. As the scope of intellectual property and the mechanism for the transfer of technology are vast, it is not possible to address all the possibilities in this policy. However, the college aims to generate intellectual property for societal usage and its benefits while raising income to support research and education.

Creation of Intellectual Property (IP)

The IP consisting of patentable or copyrightable material can be created by the college in the following ways:

- When college undertakes an assignment either from external agency or by its own initiation to take up on creation of a specific copyrightable or patentable material and deputes a team of its researchers to accomplish it as and when an individual researcher or a team of researchers may develop copyrightable or patentable material during the course of their research or as a specific project.
- When some external funding agencies such as Government, foundation, trust commercial / corporate undertaking may enter into a specific agreement with the college and team of researchers to develop some specific copyrightable or patentable materials.

Assessment and Management of IPR:

- IPR Cell of the college will coordinate the activity of evaluating, protecting, marketing, licensing and managing the IPR generated at the college.
- The creators of the IPR shall provide all the necessary information to the cell for the management of the IPR.
- The IPR & TC Cell will get it evaluated through the IPR Advisory Committee and also by co-opting the patent attorney / legal external experts whenever and wherever needed, before deciding to manage the IPR.
- An invention will be patented only if it has some commercial use and motivation and viability at some point of time in the future.

IP Awareness and Promotion:

The objective is to create awareness about the benefits of IP, its value to the right holders and the individuals. It will propagate organizing Public events and ongoing programs to emphasize the importance of IP inside the institute, and will be organized by the PSNA IPR Cell. Through which Innovators and creators will be celebrated and honored through awards and prizes

Creation of IP:

It envisages generation and growth of IP through various measures to create a vibrant and innovative network inside the college premises. Setting up IP facilitation centers in college clusters creating an industry-academia interface, improving awareness among creators of the importance of their economic and moral rights; streamlining payment mechanisms for them; encouraging innovation in all the fields of engineering.

Commercialization of IP:

It is visualized through commercialization of IP and supporting valuation, securitization, and licensing and technology transfer of inventions by the students as well as the faculty members involved in novel research and innovating new technology enhancements.

❖ **Process**

- Obtaining the inventors invention through a standard procedure called Invention Disclosure Form (IDF).
- On obtaining the invention, a thorough search is done by the IPR officer to find whether is the invention 1) Novel, 2) Non-Obvious, 3) Has industrial applicability 4) No Prior-Arts
- A search Report is generated based upon the disclosure of invention by the inventor through the IDF and options of patentability is analyzed.
- The Core team comprising the Head of the Institution, Research Dean, Patent cell coordinator and Department Head are given a presentation regarding the invention to decide on assistance and support that could be given and more importantly how patenting has to be done.
- After the panel discussion it is decided whether patent should be filed in college's name as Legal entity or to be filed in individual's name.

- After finalizing, the jury may send the information and accordingly patent drafting is done via PSNA IPR Cell and also patent filing procedures are taken care by the Cell.
- The IPR Cell takes care of the following namely Patent searching, Drafting, Filing, Clarifying the objections and procedures until the grant of the patent is obtained.

TIME LINE OF ACTION PLAN

2021-23

S.NO	TASKS	PER YEAR
1.	Tie-ups/MoU's	1
2.	Motivational Talks by Entrepreneur's & Alumni	5
3.	Brain storming and role play sessions	3
4.	Certificate Courses	5
5.	Capability Enhancing Workshops	2
6.	In-House Innovative Mini Projects	10
7.	Product Development and Marketing Training	2
8.	Knowledge Visits to Incubation Units	2
9.	Boot camp for Innovation product development	1
10.	Promoting Green Business Venture Guidelines	1

REFERENCES

[1] National INNOVATION and STARTUP Policy 2019 for Students and Faculty MHRD, GOI www.mhrd.gov.in / www.mic.gov.in

[2] Tamil Nadu Startup and Innovation Policy – 20183, Entrepreneurship Development and Innovation Institute, Chennai, www.editn.in

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