

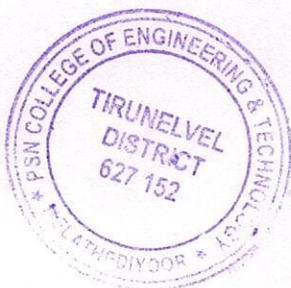


PSN College of Engineering and Technology
An Autonomous Institution, Affiliated to Anna University
Approved by AICTE, Accredited by NAAC with A+ Grade in 3rd Cycle

Key indicator- 7.3 Institution Distinctiveness

**Portray the performance of the Institution in one area
distinctive to its priority and thrust**

[Handwritten signature]



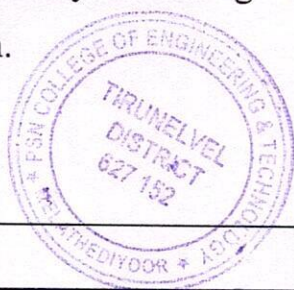
PRINCIPAL
PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYOOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.

Key Indicator- 7.3. Institution Distinctiveness

Metric-7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust

RESPONSE:

- + PSN College of Engineering and Technology (PSNCET) was established in the year 2001 with 3 undergraduate engineering programmes in an extreme rural village, Melathediyoor, Tirunelveli district in Tamilnadu.
- + It has progressed itself in every stage and crossed several mile stones during the past 20 years of its existence and today the college offers 9 undergraduate and 8 postgraduate programmes in engineering.
- + Besides, 5 departments are recognized as research centres by Anna University, Chennai. The college became autonomous in 2012 and accredited by NAAC.
- + PSNCET makes consistent efforts in fulfilling its social responsibilities towards the downtrodden sections of the society.
- + This has paved way for the rural youth, mostly first generation learners, to take up higher education and have raised them to greater heights, both professionally and economically.
- + The establishment of the college has also created job opportunities for rural people of the neighbourhood.
- + Our College always distinct by involving various academic and non-academic activities.
- + In that one of the uniqueness while comparing to other colleges, PSNCET march towards technological development and welfare of the student community.
- + Connexion to this, a Centre of excellence was established to develop the multidisciplinary knowledge of the students and faculties in research and automation.



PRINCIPAL
PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYOOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.

“THE COLLEGE IS KEEN AND DISTINCTIVE IN THE ENHANCEMENT
IN CENTRE OF EXCELLENCE”

**PSN – BOSCH REXROTH CENTRE OF EXCELLENCE (PSNBRCE) IN
AUTOMATION TECHNOLOGIES**

Web link: <https://psnresearch.ac.in/bosch/index.html>

- ✦ Taking into consideration the scope and future of automation industry in India and abroad, this centre focuses on providing industrial training to students and industry.
- ✦ The centre is established at a cost of Rupees 6.4 crores jointly by PSN College of Engineering and Technology and BOSCH Rexroth, Germany.
- ✦ The centre is equipped with state of art equipment to teach and train students and professionals in Industrial Hydraulics, Pneumatics, Sensorics, PLC, Robotics and Mechatronics with world class infrastructure, training kits, hardware, and software and teaching aids with excellent faculty trained by BOSCH Rexroth, Germany.
- ✦ The course curriculum has also been designed taking care of international training standards of BOSCH Rexroth worldwide.
- ✦ The participants had been exposed to various automation aspects for improving knowledge in the field of sensor technology and pneumatic drives.
- ✦ Both class room and laboratory training techniques had been adopted and it is highly beneficial for Engineering, Diploma and ITI students for increasing their employment potential.
- ✦ Through this PSNBRCE, all of the student and staff communities were benefited by learning automation courses. These automation courses enhance to cover all the multidisciplinary areas in one forum.



(Handwritten signature)

PRINCIPAL
PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYOOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.

- ✦ The centre continuously conducts courses for the students by trained faculties and industrial resource persons.
- ✦ The students are divided into batches and the training, workshop, internships, short term courses, diploma course, projects were conducted.
- ✦ To increase the students interest in the extra-curricular activities via conducting workshop, training, internships and projects through this centre.
- ✦ To promote industry institute collaboration and trained the students to meet the industrial technological needs.
- ✦ The centre of excellence supports for students final year main projects by developing a component with industry support. Centre of excellence act as a bridge between the student and industry to make institute industry interaction successful one. The list of courses offered was shown below,

<u>Courses</u>			
Basics Duration: 8 Hours	Short term course Duration: 40 Hours	Diploma course Duration: 120 Hours	
<u>Topics</u>	<u>Topics</u>	<u>Topics</u>	
<ul style="list-style-type: none"> ✓ Introduction to PLC ✓ Introduction to Robotics ✓ Introduction to Sensorics ✓ Introduction to Hydraulics ✓ Introduction to Pneumatics ✓ Introduction to Mechatronics 	<ul style="list-style-type: none"> ✓ Mechatronics ✓ Robotics & Drives ✓ Industrial Hydraulics ✓ Proportional Hydraulics ✓ Advanced PLC & Sensorics ✓ Advanced Hydraulics & Pneumatics 	<ul style="list-style-type: none"> ✓ PLC ✓ Robotics ✓ Sensorics ✓ Pneumatics ✓ Hydraulics ✓ Mechatronics 	
Workshop Duration: 5 Days	Training Duration: 3 Days	Workshop Duration: 5 Days	Projects Duration: 2 months
<u>Topics</u>	<u>Topics</u>	<u>Topics</u>	<u>Topics</u>
<ul style="list-style-type: none"> ✓ Mechatronics ✓ Robotics & Drives ✓ Industrial Hydraulics ✓ Proportional Hydraulics ✓ Advanced PLC & Sensorics ✓ Advanced Hydraulics & Pneumatics 	<ul style="list-style-type: none"> ✓ Mechatronics ✓ Robotics & Drives ✓ Industrial Hydraulics ✓ Proportional Hydraulics ✓ Advanced PLC & Sensorics ✓ Advanced Hydraulics & Pneumatics 	<ul style="list-style-type: none"> ✓ PLC ✓ Robotics ✓ Sensorics ✓ Pneumatics ✓ Hydraulics ✓ Mechatronics 	<ul style="list-style-type: none"> ✓ PLC ✓ Robotics ✓ Mechatronics ✓ Hydraulics & Pneumatics

PRINCIPAL

PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYUOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.





Glimpses of facilities available at (PSNBRCE)

(Handwritten signature)

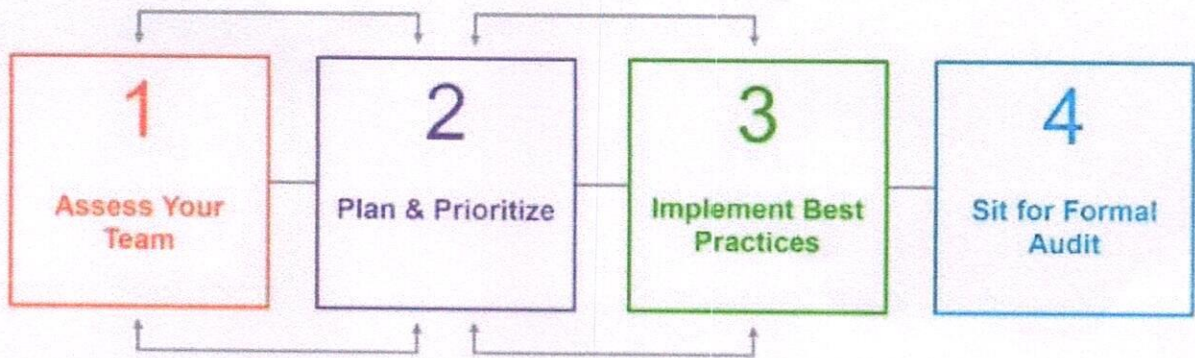


PRINCIPAL
PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYOOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.

PSNCET NI Centre of Excellence



- ✦ **PSNCET NI Centre of Excellence**, center of excellence was established in 2016 under the department of Electronic and Communication Engineering in collaboration with National Instruments pvt. Ltd the world's largest company dedicated to virtual instrumentation technology.
- ✦ Lab VIEW (Laboratory Virtual Instrument Engineering Workbench) is gaining its popularity as a graphical programming language not only for data acquisition and measurement but also for designing intelligent controllers for real time control purposes.



- ✦ Lab VIEW fundamentals, Measurement and Automation software Lab VIEW, Graphical Programming for data acquisition & control, Create a Lab VIEW application that acquires, analyses, and visualizes data, Data Acquisition system with Lab VIEW.
- ✦ The active participation and interaction of the students gives the result of success to this organized value added programme on PC-Based Real Time Data Acquisition Using LABVIEW.



PRINCIPAL
PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYOOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.

- ✦ After decades of working with and helping build strong software teams, we have found that three pillars are essential for ongoing success: engineer good software, engage in community learning, and ensure technical leadership.
- ✦ Certification is awarded after an extensive audit and validates that the development team integrates in the part of the curriculum.
- ✦ The list of modules of this course was listed below for the reference. All the courses are 30 hours duration with practical training for all the students.

List of Courses in Module 1

- ✓ **Basics of Lab VIEW**
- ✓ **Navigating Lab VIEW**
- ✓ **Troubleshooting & Debugging Vis**
- ✓ **Implementing a VI**
- ✓ **Developing Modular Applications**
- ✓ **Creating and Leveraging Data Structure**
- ✓ **Managing File and Hardware Resources**
- ✓ **Sequential and State Machine Algorithm**
- ✓ **Data Flow challenges with variables**
- ✓ **Sequential and State Machine Algorithms**

List of Courses in Module 2

- ✓ **Asynchronous Communication Queues**
- ✓ **Implementing Design Pattern**
- ✓ **Controlling the User Interface**
- ✓ **File I/O Techniques**
- ✓ **Improving an Existing VI**
- ✓ **Creating and Distributing Applications**



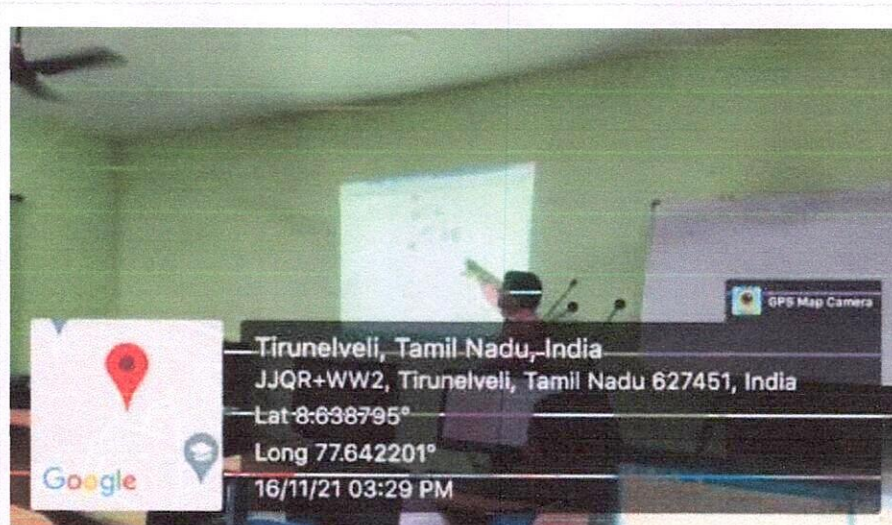
PRINCIPAL

POLYMER COLLEGE OF ENGINEERING & TECHNOLOGY

MELATHEDIYOOR, PALAYAMKOTTAI TALUK

TIRUNELVELI DIST. - 627 152.





Mr. S. Jesuharan Samuel, AP, EIE, taught PC-Based Real Time Data Acquisition Using LABVIEW



Students Practicing NI Software



PRINCIPAL

PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYOOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.

PSNCET Intel Centre of Excellence



- ✦ Intel Corporation, commonly known as Intel, is an American multinational corporation and technology company headquartered in Santa Clara, California.
- ✦ It is the world's largest semiconductor chip manufacturer by revenue, and is one of the developer of the x86 series of instruction sets, the instruction sets found in most personal computers.
- ✦ Incorporated in Delaware, Intel supplies microprocessors for computer system manufacturers such as Acer, Lenovo, HP, and Dell.
- ✦ Intel also manufactures motherboard chipsets, network interface controllers and integrated circuits, flash memory, graphics chips, embedded processors and other devices related to communications and computing.
- ✦ PSNCET joints a hand with Intel and started a Centre of Excellence in the year 2016. And organized certification programmes with **Intel Intelligent Systems**.

Sl. No	Course Name	College	Department	Tenure	No. of Participant
				23.08.19	
1	Course on Internet of Things	PSNCET	CSE	08.04.2022 to 13.04.2022	40



PRINCIPAL

PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYLOOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.

- ✦ PSNCET Intel Centre of Excellence, provide an excellent pathway for the students to learn the things beyond the class teaching.
- ✦ From the year 2016 to till date, this centre is one of the most active centre which organized more training programmes for students.
- ✦ The topics not limited to intelligent system, and Internet of Things. The latest Artificial Intelligence and its applications are also taught for the students benefits.



Glimpses of Photos shown the students working with Intel Intelligent Systems and IoT (Internet of Things)



[Handwritten signature]

PRINCIPAL
 PSN COLLEGE OF ENGINEERING & TECHNOLOGY
 MELATHEDIYOOR, PALAYAMKOTTAI TALUK
 TIRUNELVELI DIST. - 627 152.

PSNCET 3D Printing Technology Enhanced Centre

- ✦ In the Department of Mechanical Engineering, the 3D Printing Technology Enhanced Centre was started for the students to understand the 3D printing technology.
- ✦ In this centre, preliminarily installed with two printers one with Fusion Deposition Modelling Polymer and another printer with Fusion Deposition Modelling Metal and Polymer.
- ✦ This helps students to learn and create their illusionistic world of objects in to real one.



CREALITY ENDER 3 MAX 3D PRINTER for Polymer Printing

Key Specification

Moulding Tech	: FDM
Machine Size	: 513 * 563 * 590 mm
Print Size	: 300*300*340mm
Machine Weight	: 9.5 Kg
Filament	: PLA/ TPU / PETG / ABS / Wood



PRINCIPAL

PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYOOR, PALAYAMKOTTAI TALLUR
TIRUNELVELI DIST. - 627 152

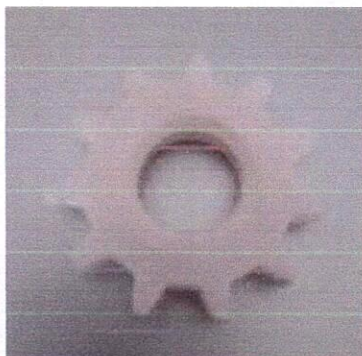




CREALITY CR – 200B 3D PRINTER for Polymer and Metals

Key Specification

Moulding Tech : FDM
Print Size : 200*200*200mm
Machine Dimension : 411*435*503mm
Net Weight : 16Kg
Supported Filament : PLA / ABS/Metal



Some of the 3D Printed Models from PSNCET 3D Printing Technology

Enhanced Centre



PRINCIPAL
PSN COLLEGE OF ENGINEERING & TECHNOLOGY
MELATHEDIYOOR, PALAYAMKOTTAI TALUK
TIRUNELVELI DIST. - 627 152.