

MECHNIZ'26

NEWSLETTER

PRINCIPAL'S MESSAGE

It gives me great pleasure to present "MechVerse 2025–2026", the technical magazine of the Department of Mechanical Engineering. This magazine reflects the creativity, technical knowledge, and innovative ideas of our students and faculty. Mechanical Engineering plays a vital role in industrial and technological development. Through this magazine, students are encouraged to think creatively, develop practical skills, and share their talents. I appreciate the efforts of the editorial team, faculty members, and students in bringing out this publication. I am confident that it will inspire young minds to achieve excellence in their careers. I extend my best wishes to all contributors and readers for a bright and successful future.

MESSAGE FROM ADMINISTRATIVE OFFICER

I am delighted to know that the Department of Mechanical Engineering is bringing out the technical magazine "MechVerse 2025–2026". This magazine is a commendable initiative that encourages students to develop their technical knowledge, communication skills, and creativity. In today's competitive world, it is important for students to enhance their practical understanding along with academic learning. A platform like "MechVerse" enables students to share their ideas, innovations, and experiences, thereby contributing to their overall personality development.

I congratulate the Department, faculty members, and students for their sincere efforts in publishing this magazine. I hope this edition will serve as a source of inspiration and knowledge for all readers.

MESSAGE FROM HOD

It gives me great pleasure to present MECHVERSE 2025–2026, the annual magazine of the Department of Mechanical Engineering. The magazine showcases the creativity, technical knowledge, and achievements of our students and faculty. It serves as a platform for sharing innovative ideas, projects, and accomplishments while promoting learning and professional growth. I appreciate the efforts of the editorial team and all contributors in bringing out this edition.

I hope this magazine inspires students to innovate, excel, and achieve success in their future careers.

VISION & MISSION

INSTITUTE VISION

To deliver holistic technical education of high standards that creates competent technocratic leaders of the future, from diverse backgrounds, who will power India to greater heights, and to combine with a holistic approach for the development of character and skills of students.

INSTITUTE MISSION

- Providing a conducive academic environment to our students that promotes creativity, nurtures hidden talents and develops self-confidence.
- Maintaining high level of academic standards by keeping abreast of newer technologies and tools in both teaching and communication.
- Providing quality education to impart basic engineering knowledge commensurate with a diploma level qualification.
- Taking efforts to prepare students to be 'Industry-ready' at the time of leaving our college.
- And to achieve the above without any compromise to our core values of Honesty, Sincerity, Dedication, Trust & Excellence.

DEPARTMENT VISION

To be a distinguished department that develops industry-ready mechanical engineers, successful entrepreneurs who embody the pride of nation through exceptional skills, quality and innovation.

DEPARTMENT MISSION

- To equip students with advanced technical skills and industry knowledge by improving the curriculum, collaborating with industries, and connecting with alumni.
- To foster entrepreneurship and innovation by encouraging interdisciplinary projects and hands-on problem-solving.
- To promote ethical practices and excellence to develop professionals who contribute to the Nation's progress and pride.

PO, PSO & PEO

PROGRAM OUTCOMES

- PO1 - Basic and Discipline specific knowledge: Apply knowledge of basic mathematics, science and engineering fundamentals and engineering specialization to solve the engineering problems.

PO2 - Problem analysis: Identify and analyse well-defined engineering problems using codified standard methods.

PO3 - Design/ development of solutions: Design solutions for well-defined technical problems and assist with the design of systems components or processes to meet specified needs.

PO4 - Engineering Tools, Experimentation and Testing: Apply modern engineering tools and appropriate technique to conduct standard tests and measurements.

PO5 - Engineering practices for society, sustainability and environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.

PO6 - Project Management: Use engineering management principles individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.

PO7 - Life-long learning: Ability to analyse individual needs and engage in updating in the context of technological changes.

PROGRAM SPECIFIC OUTCOME (PSOS)

- PSO1: Apply core mechanical engineering knowledge and advanced skills in design, analysis, simulation, and manufacturing to develop innovative, efficient and sustainable solutions for real-world challenges.
- PSO2: Cultivate an entrepreneurial mindset, uphold ethical standards, and leverage innovative skills to drive technological advancement and support the nation's growth.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

- PEO1: Build a solid foundation in mechanical engineering principles and practical skills to effectively apply theoretical knowledge to real-world challenges.
- PEO2: Prepare successful careers in industry, entrepreneurship and higher education with adaptability and problem-solving expertise.

EDITORIAL BOARD

Chief Editor - Mr. S. Chellappa, HOD/MECH

Faculty Editors:

1. Dr. M. Veera Gajendra Babu, Lecturer/Physics
2. Mr. S. M. S. Rathi Devi, Lecturer/English

Student Editors:

1. R. Harikaran, II Year Mechanical
2. M. Selva, II Year Mechanical

DEPARTMENT ACTIVITIES

TECHNICAL SEMINAR



On July 18, 2025, Sankar Polytechnic College hosted a seminar on modern fuel injection technology featuring experts from Delphi TVS Technologies. The interactive session enhanced students' automotive knowledge, industry awareness, and career readiness.



The Department of Mechanical Engineering and IEI Students' Chapter hosted an insightful seminar on NDT applications and certifications on 21 January 2026. Mr. S. Saravanan, Deputy Chief Engineer at Kudankulam Nuclear Power Project, shared vital expertise on ultrasonic, radiographic, and magnetic particle testing methods used in modern industries.



In collaboration with the IEI Students' Chapter, the department hosted a technical seminar on "Advanced Welding Technology" on 17 February 2026. Guest speaker Dr. N. Raju (Retd. AGM, BHEL) briefed students on modern manufacturing processes, automation, and current career avenues in heavy engineering.



On 19 February 2026, the Department of Mechanical Engineering and IEI Students' Chapter hosted a technical seminar on "Fuel Injection Technology" at the SPC Training Hall. Distinguished alumnus Mr. R. Kuthalingam (Eddy Power Cell Private Limited, Hosur) shared valuable industrial insights on electronic fuel injection systems, engine management, and modern emission control technologies.



Collaborating with the IEI Students' Chapter, the department hosted an insightful seminar on NDT principles on 18 February 2026. Guest speaker Dr. N. Raju (Retd. AGM, BHEL) shared his extensive field expertise, highlighting the role of ultrasonic and radiographic testing in ensuring safety standards across heavy engineering sectors.

FDP'S



A six-day FDP on “Piping Design” was conducted for South Zone II engineering faculty from 15–20 December 2025 under the Naan Mudhalvan Upskilling Scheme (TNSDC). Led by Dr. Venkatesh Radhakrishnan (L&T EduTech), the sessions focused on industrial piping systems, design principles, and industry-relevant manufacturing practices.



From 18 to 23 August 2025, Mechanical Engineering students completed a comprehensive six-day industrial visit to the Delphi TVS Mannur and Oragadam plants. Accompanied by faculty members Mr. S. Selvaraj, Mr. Guna A, and Mr. A. Natarajan, the students gained hands-on insights into advanced fuel injection systems, BS6 emission standards, clean-room assembly operations, and automotive quality validation procedures.



To bridge the gap between classroom theory and modern manufacturing, faculty members underwent a four-day intensive training program at Lakshmi Ring Travellers Pvt. Ltd., Coimbatore. The immersive sessions provided firsthand experience in automated production workflows, precision turning and milling operations, and quality control troubleshooting.



A joint industrial visit to Vinayaga Glass Industries was organized on 05 February 2026 for 31 second-year Mechanical and Civil Engineering students. Accompanied by three faculty members and guided by Mr. G. Mani (Production In-charge), the students received valuable exposure to automated manufacturing workflows and industrial workplace safety.

INDUSTRIAL VISIT



Faculty members gained vital hands-on exposure to advanced glass manufacturing workflows during a five-day training stint at FUSO Glass Industry Pvt Ltd. The program bridged academic theory with field practices, allowing educators to actively perform critical industry quality tests—including fragmentation, impact, and tensile strength evaluations.



An industrial visit to the ISRO Propulsion Complex (IPRC), Mahendragiri, was organized on 19 February 2026 for 40 third-year Mechanical Engineering students. Guided by Mr. R. Sundhara Vadivel and Mr. S. Mari Thiraviya Raj, the tour inspired students by showcasing real-world rocket propulsion technologies and advanced manufacturing workflows.

MOU'S SIGNED



The Department of Mechanical Engineering signed an MoU with Lakshmi Ring Travellers Private Limited to foster industry-institute collaboration. This strategic tie-up focuses on student internships, industrial visits, expert lectures, and enhanced placement opportunities to ensure modern industry readiness.



Sankar Polytechnic College signed an MoU with HL Mando Anand India Private Limited on 19 August 2025. Formalized by industry leadership Mr. S. Sarathi and Ms. K. Sabitha, the collaboration drives student upskilling, practical field training, and placement opportunities in the automotive manufacturing sector.

HAND'S ON TRAINING



A hands-on training programme on "TIG Welding & MIG Welding" was conducted on 16 September 2025 in collaboration with EDII-TN. Led by specialists from Velan Valves India Pvt. Ltd., the workshop focused on industrial equipment operations, practical safety standards, and specialized fabrication skills to enhance student employability.

SKILL DEVELOPEMENT



A guest lecture on "CNC Programming" was organized on 27 February 2026 featuring Mr. T. Subramaniam (Former Head–Training Division, SANMAR Group). Held at the SPC Training Hall, the session focused on machining automation, industrial applications, and career readiness in advanced production engineering.



The Training and Placement Cell of Sankar Polytechnic College organized a Soft Skills Training Programme on "Manufacturing Excellence" for Mechanical Engineering students on 23 February 2026 at Dr. A.P.J. Abdul Kalam Hall. Aimed at enhancing workplace readiness, the session focused on key professional competencies—including effective communication, leadership, teamwork, and problem-solving—alongside critical industrial concepts like quality consciousness, productivity, and professional ethics.

ENTREPRENEURSHIP



The EDII Cell and the Department of Mechanical Engineering of Sankar Polytechnic College jointly organized a seminar on "Entrepreneurship Development- A Gateway to Self-Reliance and Innovation" on 28 July 2025. Delivered by Mr. M. Siva Baarathi (District Program Manager, EDII-TN, Tirunelveli), the session offered valuable insights into startups, government support schemes, and the benefits of self-employment.



The Department of Mechanical Engineering, in association with the Entrepreneurship Development Cell (EDII-TN) and Innovation Institute Tamil Nadu, organized the “Nimirndhu Nil Awareness and Idea Generation Workshop” on 28 January 2026 at Dr. A.P.J. Abdul Kalam Hall. Conducted by Mrs. V. Asha (Lecturer, Mechanical Engineering), the session focused on fostering creativity, problem-solving, and entrepreneurial thinking.



Dr. A. Sankara Subramanian (Principal) and Mr. S. Chellappa (Head of Mechanical Engineering) actively participated in the Top Management Meeting on TNYIEDP Nimirndhu Nil on 17 September 2025 at Anna University Regional Campus, Tirunelveli. Jointly organized by EDII-TN, the Department of School Education, and the Anna University EDII-TN Hub, the meeting was presided over by Tirunelveli District Collector Dr. R. Sukumar, I.A.S.



On 18 November 2025, 18 Mechanical Engineering students from Sankar Polytechnic College participated in the “Ignite Your Inner Entrepreneurship” workshop at the District Science Centre, Tirunelveli, inspiring them toward innovation, startup development, and self-employment.

SCHOLARSHIPS



Delphi TVS Technologies Ltd. extended vital financial assistance to deserving students of Sankar Polytechnic College through its corporate scholarship initiative. During the 2025–2026 academic year, a total of 16 students received scholarships amounting to ₹1,52,000, enabling them to pursue their technical education with greater confidence and financial security. This generous contribution highlights the company's dedication to nurturing young engineering talent while strongly reinforcing the collaborative industry-institution relationship between both organizations.



The Department of Mechanical Engineering, Sankar Polytechnic College, in association with Delphi TVS Technologies, hosted the Industry–Institute Collaboration Meet 2026 on 28 February 2026 at Dr. A.P.J. Abdul Kalam Hall. The event successfully strengthened their long-standing partnership through key initiatives across all batches: distributing scholarships to first-year students, discussing specialized Fuel Injection Technology training for second-year students, and conducting interactive sessions with placed third-year students. Ultimately, the meet reinforced both organizations' commitment to advancing student internships, practical skill development, and long-term career readiness.

HAND'S ON TRAINING



The Placement Cell and the Department of Mechanical Engineering, Sankar Polytechnic College, jointly organized a Personality Development Programme titled “Vetri Un Kaiyil” on 23 September 2025 at Dr. A.P.J. Abdul Kalam Hall. Conducted by Ms. Pavithra (Assistant Campaign Manager, P&G Gillette, Tirunelveli), the inspiring session focused on key areas such as personality enhancement, communication skills, leadership qualities, and personal grooming.

STUDENT ASSOCIATION



The Department of Mechanical Engineering, Sankar Polytechnic College, successfully organized “NEXMECH 2K25”, the inaugural function of the Mechanical Students Association, on 12 September 2025 at Dr. A.P.J. Abdul Kalam Seminar Hall. The event was graced by Chief Guest Dr. A. Krishnaveni (Professor, Government College of Engineering, Tirunelveli), who delivered an inspiring address emphasizing the value of technical knowledge, innovation, leadership, and continuous learning.

AWARDS



Sankar Polytechnic College has been conferred with the prestigious Best NSS Unit Award in recognition of its exemplary contributions to community development, social service, and outreach initiatives. The award was received by Principal Dr. A. Sankara Subramanian and NSS Programme Officer Mr. S. Selvaraj on behalf of the institution. This high honor reflects the dedicated efforts of the college's NSS unit in leading vital environmental awareness campaigns, blood donation camps, and health initiatives, reinforcing the institution's deep commitment to fostering social responsibility and nation-building among its students.

SPORTS



Selvan. Nikhil Vignesh, a first-year Mechanical Engineering student at Sankar Polytechnic College, won the prestigious “Best Bowler of the Tournament” award at the Inter College / Inter School Cricket Tournament 2026. Organized by the Tirunelveli District Cricket Association, the tournament highlighted his outstanding bowling performance, on-field consistency, and dedication to his team's success. The Department of Mechanical Engineering and the college management congratulate him on this exceptional individual sporting honor and wish him continued success in his future athletic endeavors.



The Table Tennis team of Sankar Polytechnic College emerged as the Winners of the Table Tennis Championship at the IPAA Tirunelveli Divisional Sports and Games Meet. Held on 19 September 2025 at SCAD Polytechnic College, Cheran Mahadevi, the tournament highlighted the team's exceptional skill, dedication, and competitive spirit. The college Management, Principal, and faculty warmly congratulate the players on bringing this distinct honor to the institution and wish them continued success in all future sporting events.

STUDENT ACHIEVEMENT



On 07 March 2026, third-year Mechanical Engineering students Selvan. N. Thirumal and Selvan. V. Patturaja from Sankar Polytechnic College won the Second Prize in the Paper Presentation Competition at the 13th ISTE Polytechnic Convention 2026.



A team of Mechanical Engineering students from Sankar Polytechnic College—comprising Selvan. G. Esakkiraja, Selvan. M. Pepseelan Seenu, Selvan. M. Mohamed Jaffer Sathik, and Selvan. P. Sudarshan—secured the Second Prize in the Project Contest at the 13th ISTE Polytechnic Convention 2026 held on 07 March 2026. Presented before a panel of industry experts, their innovative project was highly commended for its technical relevance, practical applicability, and effective presentation.

PATENT REGISTRATION



Mr. R. Sundhara Vadivel, Lecturer in Mechanical Engineering at Sankar Polytechnic College, co-invented a patented design titled “Device for Monitoring of Electricity Generation in Hydrogen Fuel Cells” (Design No. 464377-001), with its official certificate issued on 09 February 2026.

FOUNDER'S DAY



Sankar Polytechnic College celebrated Founder's Day on January 30, 2026, to honour its founder's vision and reward academic excellence. During the event, Mechanical Engineering students K. Selva Vigneshwaran, Murgeshan, and T. Thirumal received the prestigious Best Student Award. Their outstanding performance and leadership serve as an inspiration for peers to strive for continuous learning and dedication.

TOPERS

DEPARTMENT OF MECHANICAL ENGINEERING ACADEMIC YEAR 2025-2026					
TOPPERS (OCT 2025)			TOPPERS (APR 2026)		
S.No	Name of the Student	Year of Study	S.No	Name of the Student	Year of Study
1	AHAMED RIYAZ A	I	1	VARSHA B	I
2	HARIKARAN R	II	2	MAHESH S	II
3	SHIVA RAM S	III	3	THIRUMAL N	III

PLACEMENT ACHIEVEMENT



SANKAR POLYTECHNIC COLLEGE

A Government Aided, Autonomous Institution, Approved by AICTE & Affiliated To Dr.TJ

Sankar Nagar, 622005, Tirunelveli - Managed by SANKAR EDUCATIONAL TRUST




MECHANICAL DEPARTMENT PLACEMENT 2025-2026

1. AMAL K. S.




























































2. ANAND K.






















3. ANAND K.






















4. ANAND K.






















5. ANAND K.






















6. ANAND K.






















7. ANAND K.






















8. ANAND K.






















9. ANAND K.






















10. ANAND K.




ARTICLE	
கவிதை மெக்கானிக்கல் துறை வியர்வை துளியால் வளர்ந்த துறை, வெற்றியின் பாதை காட்டும் துறை. இயந்திரத்தின் இதயம் போல இயங்கிக் கொண்டே இருக்கும் துறை. சக்கரம் சுழலும் ஒவ்வொரு நேரமும் எங்கள் உழைப்பு பேசிக் கொண்டே இருக்கும். சின்ன போல்ட் முதல் பெரிய மெஷின் வரை மெக்கானிக்கலின் தடம் பதிந்திருக்கும். வரைபடத்தில் தொடங்கும் கனவு, வாழ்க்கையில் உருவாகும் புதுமை. கற்பனையை நிஜமாக்கும் சக்தி, மெக்கானிக்கல் துறையின் வெற்றி. இரும்பையும் உயிர்ப்பிக்கும் கலை, இளைஞர்களை உயர்த்தும் வழி. கஷ்டத்தை பார்த்து பயப்படாமல், முயற்சியால் முன்னேறும் மொழி. தொழிற்சாலை சத்தம் கேட்டாலும், அதில் ஒரு இசை இருக்கும். அந்த இசையின் பின்னாலே ஒரு மெக்கானிக்கல் மாணவன் இருப்பான்.	நாடு வளர தொழில் வேண்டும், தொழில் வளர இயந்திரம் வேண்டும். இயந்திரம் வளர மெக்கானிக்கல் வேண்டும், அதனால் இந்த துறைக்கு என்றும் மதிப்பு வேண்டும். கைகளை கருப்பாக்கும் உழைப்பு இருந்தாலும், எதிர்காலத்தை வெளிச்சமாக்கும் துறை இது. படிக்கும் ஒவ்வொரு மாணவனின் கனவிலும் பெருமையாக நிற்கும் பெயர் — “மெக்கானிக்கல் இன்ஜினியரிங்”. K. Satheesh Third Year Mechanical Engineering A Section

ARTICLE	
3D Printing Technology – The Future of Manufacturing In today's fast-moving world, technology is changing the way we design and manufacture things. One such revolutionary technology is 3D printing, also known as Additive Manufacturing. It is quickly becoming an important part of modern engineering and industrial applications. From simple products to complex components, 3D printing is redefining the future of manufacturing.	Advantages 3D printing offers several advantages compared to traditional manufacturing methods. - Reduces material waste - Lower production cost for small quantities - Capable of producing complex geometries - Faster prototyping and product development - Easy customization as per requirement - Supports innovation and creativity
What is 3D Printing? 3D printing is a process of creating three-dimensional objects by adding material layer by layer based on a digital design. The design is first made using computer-aided design (CAD) software, and the 3D printer builds the object using materials such as plastic, metal, resin or composite. Unlike traditional methods that cut or remove material, 3D printing adds only what is needed. This reduces waste and allows freedom in design.	Challenges Despite its many benefits, 3D printing also has some challenges. - High cost of industrial 3D printers - Limited material strength in some cases - Slower process for large scale production - Need for skilled operators and good software knowledge - Quality control is important for better results
Applications in Various Industries 3D printing is used in many industries due to its flexibility, accuracy and cost efficiency. Automotive: Used for making prototypes, spare parts and customized tools. Aerospace: Helps in producing lightweight components and complex parts. Healthcare: Used for dental models, artificial limbs, implants and surgical instruments. Mechanical Engineering: Useful in prototyping, product development and functional testing. Construction: 3D printing is now being used to build walls and even houses in some parts of the world.	Future Scope The future of 3D printing looks very promising. With continuous research and development, new materials and advanced printers are being introduced. Soon, we can expect 3D printing to be more affordable, faster and stronger. It will play a key role in industries, healthcare, space exploration and even daily life products.
	Conclusion 3D printing technology is more than just a new way of making products. It is a step towards the future. It helps engineers and designers turn their ideas into real objects quickly and efficiently. As this technology continues to evolve, it will create endless possibilities and opportunities for innovation and growth.
	A. Vimalraj First Year Mechanical Engineering A Section

ARTICLE	
நெக்ஸ்ட் ஜெனரேஷன் டெக்னாலஜி உலகம் வேகமாக மாறிக்கொண்டிருக்கிறது. நம்மைச் சுற்றியுள்ள ஒவ்வொரு விஷயமும் புதிய தொழில்நுட்பத்தால் மாற்றம் அடைகிறது. இது தான் நெக்ஸ்ட் ஜெனரேஷன் டெக்னாலஜி. இது வெறும் புதிய கருவிகள் அல்லது கேஜெட்கள் மட்டும் அல்ல. மனித வாழ்க்கையை எளிதாக்க, சிறப்பாகவும், பத்திரத்தன்மையாகவும் மாற்றும் புதிய சிந்தனைகளும், கண்டுபிடிப்புகளும் ஆகும்.	நெக்ஸ்ட் ஜெனரேஷன் டெக்னாலஜியின் பயன்கள் - நமது தினசரி வாழ்க்கையை எளிதாக்குகிறது. - வேலைகளை வேகமாகவும் துல்லியமாகவும் செய்கிறது. - சிறந்த முடிவெடுக்க உதவுகிறது. - புதிய வேலை வாய்ப்புகள் மற்றும் தொழில் வாய்ப்புகளை உருவாக்குகிறது. - புதுமை மற்றும் படைப்பாற்றலை ஊக்குவிக்கிறது.
நெக்ஸ்ட் ஜெனரேஷன் டெக்னாலஜி என்றால் என்ன? எதிர்காலத்தை உருவாக்கும் புதிய மற்றும் மேம்பட்ட தொழில்நுட்பங்கள், அமைப்புகள் மற்றும் முறைகள் நெக்ஸ்ட் ஜெனரேஷன் டெக்னாலஜி எனப்படும். இதில் ஆர்ஃபிஃபியல் இன்டெலிஜென்ஸ் (AI), இன்டர்நெட் ஆஃப் திங்ஸ் (IoT), ரோபோடிக்ஸ், 3D பிரிண்டிங், 5G டெக்னாலஜி, பிளாக்செயின், புதுப்பிக்கத்தக்க ஆற்றல் தொழில்நுட்பங்கள் மற்றும் பல அடங்குகின்றன.	பயன்பாடுகள் - மருத்துவம்: நோய்களை விரைவாக கண்டறிதல், நிதானத்தில் (தொலைவில்) சிகிச்சை, ரேபோ ஆறுவை சிகிச்சை. - கல்வி: ஆன்லைன் கற்றல், மெய்நிகர் வகுப்பறை, தனிப்பட்ட கற்றல் அனுபவம். - தொழில்: உற்பத்தி அதிகரித்தல், செலவு குறைத்தல், தானியங்கி முறை. - விவசாயம்: ஸ்மார்ட் பாசனம், மண் பரிசோதனை, பயிர் கண்காணிப்பு. - போக்குவரத்து: எலக்ட்ரிக் வாகனங்கள், ஸ்மார்ட் போக்குவரத்து முறை, ஈய இயக்க வாகனங்கள்.
முக்கிய நெக்ஸ்ட் ஜெனரேஷன் தொழில்நுட்பங்கள் ஆர்ஃபிஃபியல் இன்டெலிஜென்ஸ் (AI): இயந்திரங்கள் மனிதர்களைப் போல சிந்தித்து முடிவெடுக்க உதவுகிறது. இது குரல் உதவியாளர், செலக்ப் டிரைவர், மருத்துவ சண்டிதல் போன்ற பல துறைகளில் பயன்படுகிறது. இன்டர்நெட் ஆஃப் திங்ஸ் (IoT): இணையத்துடன் இணைக்கப்பட்ட சாதனங்கள் ஒன்றுடன் ஒன்று தகவல் பரிமாறிக்கொண்டு வேலை செய்வதை இது உறுதி செய்கிறது. ஸ்மார்ட் நேரம், ஸ்மார்ட் சிட்டி, ஆரோக்கிய கண்காணிப்பு ஆகியவற்றில் இது பயன்படுகிறது. ரோபோடிக்ஸ்: மனித உழைப்பு தேவையற்ற அல்லது ஆபத்தான வேலைகளை ரோபோட்டுகள் செய்து முடிக்கின்றன. தொழிற்சாலைகள், மருத்துவமனைகள், விண்வெளி ஆய்வு போன்ற துறைகளில் இவை முக்கிய பங்கு வகிக்கின்றன. 3D பிரிண்டிங்: ஒரு பொருளை அடுக்கக்கூக அச்சிட்டு உருவாக்கும் முறை இது. மருத்துவ சாதனங்கள், கார்கள் பாகங்கள், வீடுகள் வரை இதே கொண்டு உருவாக்க முடிகிறது. 5G டெக்னாலஜி: வேகமான இணையம் மற்றும் குறைந்த தாமதத்துடன் கூடிய தொடர்பு இது கல்வி, மருத்துவம், தொழில், பொருதுபோக்கு மற்றும் பல துறைகளில் பெரிய மாற்றத்தை கொண்டு வரும். பிளாக்செயின்: தகவல்களை பாதுகாப்பாக பதிவு செய்து வைத்திருக்க உதவும் தொழில்நுட்பம். வங்கி, வர்த்தகம், டிஜிட்டல் நகரம் போன்ற துறைகளில் இது பயன்படுகிறது. புதுப்பிக்கத்தக்க ஆற்றல் தொழில்நுட்பங்கள்: சூரிய ஆற்றல், காற்றாலை ஆற்றல் போன்றவை சுற்றுச்சூழல் மாசை குறைத்து, எதிர்காலத்திற்கு நிலையான ஆற்றலை வழங்கும்.	சவால்கள் - புதிய தொழில்நுட்பங்கள் அதிக செலவு உடையவை. - அதனை பயன்படுத்த திறமையான மனிதவள தேவை. - தகவல் பாதுகாப்பு மற்றும் தனிப்பிரமை பிரச்சினைகள். - சில வேலைகள் தானியங்கமாக மாறுவதால் வேலை இழப்பு ஏற்படும். - தவறாக பயன்படுத்தும் வாய்ப்பு இருக்கிறது.
	முடிவுரை நெக்ஸ்ட் ஜெனரேஷன் டெக்னாலஜி என்பது எதிர்காலத்தின் அடித்தளம். இது பல நன்மைகளை தரினாலும், அதன் சவால்களை சரியாக கையாள வேண்டும். சரியான அறிவு, நல்ல சிந்தனை மற்றும் பொறுப்பான பயன்பாடு இருந்தால், இந்த தொழில்நுட்பங்கள் மனித வாழ்க்கையை இன்னும் சிறப்பாக மாற்றும். நாம் கற்றுக் கொண்டு, புதுமைகளை ஏற்று, நமது எதிர்காலத்தை நாமே உருவாக்க வேண்டும்.
	K. Santhosh Third Year Mechanical Engineering A Section