

YUVA
UNSTOPPABLE



ASPIRE 2025



GOVERNMENT POLYTECHNIC, MALKANGIRI
AT-PRADHANIGUDA,
P.O & DIST. MALKANGIRI-764045, ODISHA

Annual Magazine

ASPIRE-2025: Continuing the Legacy of Excellence

It is with great pleasure that we present to our esteemed readers the second successful edition of our Annual Magazine, ASPIRE-2025. The diverse collection of ongoing activities, poems, essays, and articles reflects the passion and ingenuity of our contributors, making this magazine a true platform for expression and inspiration.

While a college magazine primarily highlights student creativity, faculty contributions have been deliberately included to motivate and guide young minds. We extend our heartfelt appreciation to our respected Principal, Sri Pritiranjana Priyadarsi Patro, whose vision, dedication, and relentless efforts have helped uphold the academic excellence and enriching environment of our institution. His leadership continues to inspire both faculty and students alike.

The success of ASPIRE-2025 is the result of teamwork and commitment, with invaluable contributions from faculty members, senior mentors, and student editors. We extend our gratitude to everyone who played a role in bringing this magazine to life. As we move forward, we welcome suggestions for further enhancement in the upcoming editions. Let us continue this journey of creativity, knowledge, and excellence!

GOVT POLYTECHNIC MALKANGIRI, ODISHA

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About Institute

Government Polytechnic Malkangiri is a premier diploma engineering institute. It was established in 2015 and affiliated to State Council of Technical Education & Vocational Training (SCTE&VT) Odisha. This institute is located near the Malkangiri town, providing a unique and inspiring environment that encourages health and well-being. It is the perfect place to immerse yourself in a peaceful and favorable atmosphere, ideal for focused learning and personal growth.

This institute offers 03 Year diploma courses in the following branches:

1. Civil Engineering
2. Electrical Engineering
3. Electrical & Electronics Engineering
4. Mechanical Engineering

It is an eco-friendly campus, equipped with modern infrastructure, smart classrooms, well-equipped labs, workshops, libraries and separate hostels for boys and girls. We are dedicated to maintaining academic excellence while preparing our students to make meaningful contributions to a better world.

Vision of the Institute

To produce best quality of Engineering professionals by imparting hands on experience and value based education such that they should function effectively in the multicultural and multidisciplinary groups with strong ethical values from the aspirational Districts of Odisha.

Mission of the Institute

M1: To provide state of the art infrastructure and vibrant environment for the students of Engineering conducive to qualitative learning and problem solving skills through excellent teaching and guidance of dedicated faculty.

M2: To provide exposure to industry through suitable Institution-Industry-Interaction programs to adapt the challenges with professionalism and strong ethical values.

Principal's Message

It brings me great pleasure to see Government Polytechnic, Malkangiri launching the latest edition of its Annual Magazine, **"ASPIRE"**. Our institution has always been a beacon of aspiration and inspiration for the youth of Odisha. This magazine serves as a valuable platform for students to express their creativity, showcase their talents and share their innovative ideas, while also providing enriching content for curious readers.



I extend my heartfelt appreciation to the editorial team, faculty and students for their dedication to this noble endeavour. May **"ASPIRE"** continue to motivate, inform and ignite a passion for learning and innovation among its readers.

Wishing the magazine great success and an inspiring journey ahead!

Warm Regards,
Sri Pritiranjana Priyadarshi Patro
Principal, Government Polytechnic, Malkangiri

Our Stakeholder's Message

It is a matter of immense pleasure for me to learn that Government Polytechnic, Malkangiri situated on the lap of the enticing nature, an institution of aspiration and Inspiration for the youth of Malkangiri district is going to bring out the edition of Annual Magazine "ASPIRE". A magazine of the institution is of immense value as it provides a coveted platform to the students to unfold their creative thoughts and talent and to the inquisitive readers in myriad directions.



For this noble Endeavour of the institution, I wish all success from the core of my heart.

Mr VISHAL SINGH, IAS

Vishal Singh
Collector & District Magistrate,
Malkangiri

Our Stakeholder's Message

Prime Minister Employment Generation Program (PMEGP) is the flagship scheme of Government for generation of employment opportunities by promoting Micro enterprises by vast generation of entrepreneurs in the district. This year 2024-25, we have set up more than 100 Micro enterprises in sectors like Food processing, Electrical repairing, Mechanical workshop, Welding, Readymade garment manufacturing, Beauty parlor, Saloon, Musical band party, Computer centre and manufacturing of products required by humanity in terms of their uses in shelter, food and clothes.



I would urge the passing out students of Govt. Polytechnic, Malkangiri to take benefits of this scheme in receiving credit cum subsidy ranging from Rs 50 Lakhs to Rs 3.00 Crores with 35% Capital Expenditure subsidy as per the customized project report prepared by DIC, Malkangiri.

I wish the students of Govt. Polytechnic, Malkangiri come out with all laurels by taking benefits of DIC, Malkangiri and become successful entrepreneurs in times to come.

Best Wishes to all members of Govt. Polytechnic Malkangiri!

A handwritten signature in black ink, appearing to read 'Tarun Kanta Mohanty'.

Sri Tarun Kanta Mohanty,
OIS-I General Manager,
MSME & DIC, Malkangiri

Our Stakeholder's Message

In the very heart of Malkangiri, Government Polytechnic, Malkangiri offering diploma programs in Electrical, Mechanical and Civil Engineering. The experienced and dynamic faculty under the guidance of the Principal, deliver quality and practical-based teaching, preparing students for placements in reputed companies across India.



I invite all eligible students of Malkangiri district who aspire to build a career in the technical field to take admission in Government Polytechnic, Malkangiri.

Best Wishes to all the student and Faculty of Govt. Polytechnic Malkangiri!

Mr Manaswee Sethi, OES
District Skill Development & Employment Officer,
Malkangiri

DEPARTMENT OVERVIEW

CIVIL ENGINEERING

❖ Vision of the Department

To Produce best quality of Civil Engineering professionals by imparting hands on experience and value based education to meet the aspirations of Construction Industry and make the world a better place to live in from the aspirational Districts of Odisha.

❖ Mission of the Department

M1 - To Prepare the students of Civil Engineering with strong fundamental concepts, analytical capability and problem solving skills.

M2 - Prepare the students to adapt to the challenges in the construction industry.

M3 - To Instill professionalism and strong ethical values and to be leaders driving innovation in Civil engineering.

❖ Laboratory Facilities

- Soil Engineering Laboratory.
- Survey Laboratory.
- Concrete Laboratory.
- Transportation Engineering Laboratory.
- Material Testing Laboratory.
- Public Health Laboratory.
- Computer Laboratory.
- Models Room.
- Auto Cad Lab



SEMINAR & WORKSHOP

The Department of Civil Engineering, Govt Polytechnic Malkangiri, organized regularly Seminar & Workshop on modern construction techniques, sustainable engineering, infrastructure development and structural design. The event enriched students' technical skills and industry readiness.



EXPOSURE VISIT

Civil engineering students of Government Polytechnic Malkangiri visited the different construction area like dam, bridge and Buildings. They gained practical insights into dam structure, water management, and building construction techniques. The visit enhanced their technical knowledge and real-world engineering exposure.



DEPARTMENT OVERVIEW

ELECTRICAL ENGINEERING

❖ Vision of Department

To accomplish and sustain academic eminence in the field of Electrical Engineering and to produce highly skilled Electrical Engineers for self and societal growth.

❖ Mission of Department

M1. To develop high quality infrastructure and facilities related to Electrical Engineering.

M2. To provide high quality technology assisted teaching experience to students.

M3. To enable the students to have better communication skills, moral values, ethics etc.



❖ Laboratory Facilities

- Electrical Machines Laboratory
- Power Electronics & PLC Laboratory
- Circuit & Simulation Laboratory
- Electrical Workshop Practice
- MAT LAB Laboratory



SEMINAR/WORKSHOP

The Department of Electrical Engineering, Government Polytechnic Malkangiri, organized a Seminar & Workshop on power systems, renewable energy, smart grids and energy management. The event enhanced students' technical skills and industry readiness.



EXPOSURE VISIT

Electrical engineering students of Government Polytechnic Malkangiri visited TPSODL (TP Southern Odisha Distribution Limited) and Balimela Hydro Electric Project. They gained practical insights into power generation, transmission, distribution, and grid management. The visit enhanced their understanding of real-world electrical systems and industry operations.



DEPARTMENT OVERVIEW

MECHANICAL ENGINEERING

❖ Vision of Department

To make a positive contribution to the nation and the world via scientific and technological Education and research to serve as a useful resource for industry and society and socio economic development of the nation.

❖ Mission of Department

- **M1:** To provide high quality education to produce efficient Mechanical Engineers who can compete in national and international level.
- **M2:** To make the students competent for jobs or higher education.
- **M3:** To encourage the application of technical knowledge to the solution of societal problems.

❖ Laboratory Facilities

- Mechanical Engineering Lab
- Hydraulics Machine & Fluid Power Lab
- Refrigeration & Air Conditioning Lab
- Theory of Machine Lab
- Power Plant Engineering Lab
- Automobile Engineering Lab
- CNC Lab
- CAD/CAM Lab



SEMINAR/WORKSHOP

The Department of Mechanical Engineering, Government Polytechnic Malkangiri, organized a Seminar & Workshop on Innovations and Advancements in

Mechanical Engineering, providing students with industry insights and hands-on training. Experts from academia and industry shared knowledge on Industry 4.0, smart manufacturing, and career opportunities,

while the workshop offered practical exposure to CAD design, CNC machining, and automation technologies. The event empowered students with technical skills and real-world applications, preparing them for future careers in the mechanical sector.

EXPOSURE VISIT

The Mechanical engineering students of Government Polytechnic Malkangiri visited the Balimela Hydro Electric Project and local small-scale industries regularly. They gained practical insights into hydropower generation, turbine operations, and manufacturing processes. The visit enriched their technical knowledge and career awareness.



Our Lecturer's Talk

Green Engine

(Powering a Sustainable Future)

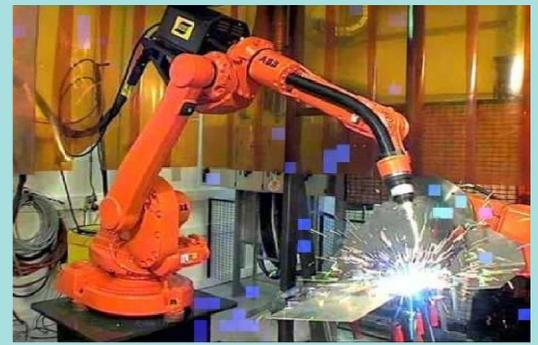
The Green Engine is a sustainable solution to the world's growing energy crisis. Adopting such technology is not just about progress; it is about responsibility towards our environment, resources, and future generations. Green Engine will shape a society that thrives on sustainability and innovation. The future is in our hands—let's build it wisely!

Miss Sharmila Sabar
Senior Lecturer HoD I/C
Mechanical Engineering

Robot Welding

(Revolutionizing Industrial Automation)

Transforming industries by automating processes from automobile manufacturing to medical fields. As industries embrace advanced technology, robot welding plays a crucial role in enhancing productivity, reducing errors, and saving time with 100% efficiency. Learning this engineering skill will be a valuable asset for the future!



Sri Saurav Ranjan Pradhan
Senior Lecturer
Mechanical Engineering Dept

Our Lecturer's Talk

Vision For Indian Technical Education in Contemporary Global Scenario

Indian technical education must advance strategically to harness the nation's demographic strengths, driving growth in services, industry, and agriculture while aligning with global competitiveness. By fostering skill development and innovation, we can build a workforce that excels both nationally and internationally. The future rests on self-reliance, sustainability and technological excellence, positioning India as a global leader in technical education.

Sri J Binod Kumar
Lect. Electrical Engg.

The International Year of Quantum Science and Technology -2025

(The new frontier in innovation)

Quantum science and technology are revolutionizing industries with powerful computing, secure communication, and groundbreaking discoveries. Its impact on society, healthcare and energy solutions. As we transition from research to real-world applications, IYQ2025 represents a global initiative to raise awareness and drive innovation. The future is quantum unlocking limitless possibilities for a smarter, more secure and technologically advanced world!



Sri Bipin Bihari Mohanty
Lect. in Chemistry & HoD Math & Sc.

Our Lecturer's Talk

Electrical Engineering and Machine Learning *(AI and Deep Learning: Shaping the Future of Innovation)*

Artificial Intelligence and deep learning are transforming electrical engineering, driving advancements in signal processing, power systems, and renewable energy management. Neural networks enhance efficiency by improving signal accuracy, reducing noise, and optimizing system performance. In renewable energy, AI-powered predictions help stabilize power grids and maximize resource utilization. As engineers embrace these innovations, the fusion of AI and electrical engineering will shape a smarter, more sustainable, and technologically advanced future.

Sri Rajiv Ratan Patel
Sr. Lecturer in Electrical Engg.
(Head of Department).



Revolutionizing Civil Engineering *(The Future of Civil Engineering)*

Advanced technology is revolutionizing civil engineering, bringing smart materials, AI-driven construction, and sustainable infrastructure to the forefront. Innovations like 3D printing, IoT-based monitoring, and self-healing concrete are making structures more efficient, durable, and eco-friendly. With AI optimizing design and predictive maintenance reducing failures, the future of civil engineering is smarter, safer, and more resilient than ever.

Sri P Sankar Rao
Faculty
Civil Engg.

Our Learner's Thought

Save the Environment

Small Actions Today for a Greener Tomorrow

The environment is our greatest treasure, and protecting it is our responsibility. By reducing waste, conserving energy, and planting trees, we can protect nature for future generations. Let's unite to build a cleaner, greener, and more sustainable future for all.



Manoranjan Patra
Mechanical Engg.(3rd Year)



Empowered Girls, Empowered Future

Educate, Inspire, and Elevate for a Better Tomorrow

Every girl has the power to dream, achieve, and lead. By providing education and opportunities, we unlock their limitless potential. An empowered girl transforms her family, community, and the world. Let's join hands to build a future where every girl thrives.

Jaya Sarkar
Civill Engg.(2nd Year)

Our Learner's Thought

The Power of Behaviour

(A Positive Mindset Leads to Success)

Our behavior reflects our values and shapes our destiny. Positive actions create trust, inspire others, and build strong relationships. Every small act of kindness and integrity makes a big difference. Let's cultivate good behavior and make the world a better place!



Satya Narayan Mahapatra
Electrical Engg.(2nd Year)



The Power of Technical Education *(Skills for a Better Tomorrow)*

Technical education is the backbone of progress, empowering individuals with hands-on skills and real-world expertise. It enhances employability, drives innovation, and strengthens industries. A skilled workforce is the key to economic growth and national development. Let's join in technical education to build a smarter, stronger future!

Deepa Mandal
Civill Engg.(3rd Year)

A Commitment to Environmental Sustainability

Government Polytechnic Malkangiri takes pride in its commitment to environmental sustainability by organizing tree plantation drives in every year. Students, faculty and staff come together to plant trees across the campus, contributing to a cleaner and greener environment. These efforts not only enhance the beauty of the institution but also help in reducing carbon footprints, improving air quality, and promoting biodiversity.



Learning Beyond the Classroom

At Government Polytechnic Malkangiri, education extends beyond textbooks into hands-on practical applications that prepare students for real-world challenges. Practical training is an integral part of the curriculum, enabling students to gain industry-relevant skills through workshops, laboratory experiments, and field projects. This approach not only strengthens their technical knowledge but also enhances problem-solving abilities and innovation.



Students actively engage in skill-based learning through industrial visits, live projects, and hands-on sessions in well-equipped labs. The institute emphasizes experiential learning, ensuring that students apply theoretical concepts in practical settings. By bridging the gap between theory and practice, Government Polytechnic Malkangiri empowers students with the expertise and confidence needed to excel in their respective fields.

Entrepreneurship Awareness Programme

Government Polytechnic Malkangiri observed **Jana Jathiya Gourav Divas** as part of **Azadi Ka Amrit Mahotsav**, honoring the rich legacy of tribal leaders and their contributions to the nation. To mark the occasion, an **Entrepreneurship Awareness Program** was organized to inspire students towards self-reliance and innovation. The event emphasized the importance of skill-based entrepreneurship and highlighted various government schemes that support aspiring entrepreneurs.

The session provided insights into business development, financial management, and startup opportunities. Experts and mentors shared success stories of entrepreneurs who have turned their ideas into thriving businesses. Through interactive discussions, students learned how to utilize their technical skills for self-employment and economic empowerment.

The program not only paid tribute to tribal heritage but also encouraged young minds to become future job creators rather than job seekers.



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Poly Fest

Government Polytechnic Malkangiri hosted **Poly Fest** every year, a vibrant celebration of athletic excellence and teamwork. The event featured exciting competitions in track and field, football, volleyball, kabaddi, and cultural activities, bringing out the competitive spirit of students. Beyond the games, the fest fostered unity, discipline and resilience among participants.

The festival concluded with a prize distribution ceremony, recognizing the outstanding performances of athletes. Through this grand sporting event, the institution reinforced its commitment to holistic development, encouraging students to embrace fitness and sportsmanship in their academic journey.



Empowering Communities Through Social Initiatives

Polytechnic Malkangiri actively engages in various **social and community activities**, fostering a sense of responsibility and service among students. The institution regularly organizes **blood donation camps**, encouraging students and staff to contribute to saving lives. These initiatives not only support healthcare services but also promote the spirit of compassion and volunteerism.

In addition to healthcare efforts, the institute conducts **cleanliness drives**, ensuring a healthier and greener environment. Students participate in cleaning campaigns within the campus and surrounding areas, spreading awareness about hygiene and waste management. These activities align with national initiatives like **Swachh Bharat Abhiyan**, reinforcing the importance of environmental sustainability.



Awareness programs on **health, education, and social issues** are also a key focus. The institute organizes sessions on **road safety, skill development, and digital literacy**, empowering students and the local community with essential knowledge. Through these initiatives, Polytechnic Malkangiri continues to inspire young minds, fostering a culture of social responsibility and active citizenship.

Career Guidance for High School Students Preparing for a Bright Future

Choosing the right career path after school is a crucial decision, and career guidance plays an important role in helping students make informed choices. Polytechnic Malkangiri organizes career counselling sessions to guide students on various career options, including technical education, higher studies, government jobs, and entrepreneurship. These sessions help students understand their strengths, interests, and the opportunities available in different fields.



To enhance career readiness, Experts from industries and educational institutions provide insights into emerging career trends, helping students stay updated with the latest job market demands. Hands-on training programs, internships, and exposure to vocational courses further prepare students for real-world challenges.