



MONTHLY REPORT

FEBRUARY

2026

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Monthly Summary



During February 2026, Hoshang Patel Technical Centre (HPTC) focused on technical training, community solar installations, system maintenance, and product development activities. A specialized solar trade training program was conducted for students from Government Industrial Training Institute (ITI), Sangameshwar, providing hands-on exposure to solar manufacturing, plant maintenance, electronics, and field servicing.

The centre also supported two social solar streetlight installations at Jaguars Academy, Nashik and Manik Public School, Karnataka, improving sustainable lighting infrastructure in educational institutions. Several institutional visits further strengthened student engagement and awareness of renewable energy technologies.

Monthly Objectives:

- Strengthen technical skill development by conducting specialized solar trade training programs for ITI students and providing practical field exposure.
- Support community and institutional solar infrastructure through social solar streetlight installations in educational institutions.
- Maintain and optimize performance of existing solar assets through preventive maintenance, system adjustments, and annual servicing activities.
- Advance product innovation and manufacturing development through research on solar pest traps, aluminium streetlight designs, fixture mould development, and industrial equipment utilization.
- Promote educational outreach and awareness of renewable energy technologies through institutional visits and technical demonstrations.

Kolhapur, Maharashtra

Training & Capacity Building

Solar Trade Training Program for Government Industrial Training Institute (ITI), Sangameshwar

Duration: 2nd February – 18th February 2026

Participants: 11 students (First Batch – Solar Trade)

Hoshang Patel Technical Centre (HPTC) conducted a specialized solar trade training program for 11 students from Government Industrial Training Institute (ITI), Sangameshwar. This training marked the first specific batch of students pursuing the solar trade, aimed at providing hands-on exposure and practical understanding of renewable energy systems.



The program was designed to build technical skills in solar manufacturing, system maintenance, and basic electronics, enabling students to understand real-world solar installations and operational practices.

Training Coverage

- Solar manufacturing , assembly fundamentals and Safety
- Maintenance of a 100 kW solar power plant at BRGS
- Basic electronics related to solar systems
- Solar streetlight maintenance and troubleshooting
- Field exposure to solar system maintenance at the Vipassana Centre, Dapoli

Outcome & Impact

- Students gained practical exposure to real solar installations and maintenance procedures
- Strengthened their technical understanding of solar power plant operation and field servicing
- Encouraged skill development aligned with industry requirements in the renewable energy sector

This training initiative reflects HPTC's continued commitment to building a skilled workforce and supporting technical education in renewable energy technologies.

Projects Institutional Support

Multiple Locations

Social Solar Streetlight Installations

- During February 2026, Hoshang Patel Technical Centre (HPTC) supported two social solar streetlight installation initiatives aimed at improving lighting infrastructure in educational environments.

1. Jaguars Academy – Nashik

- A total of 24 solar streetlights were installed to enhance campus lighting and improve safety and usability of outdoor areas. for Army training Students.

2. Manik Public School – Manik Nagar, Humnabad, Bidar (Karnataka)

- Solar streetlights were installed within the school premises to support reliable and sustainable lighting for students and staff, contributing to safer and energy-efficient infrastructure.

3. Samaritans For the Nation - Bhadradi Kothagudem

- Samaritans For the Nation NGO took motive to install 17 Solar street lights in installing in remote areas of Bhadradi Kothagudem District into 3 villages.



Jaguars Academy – Nashik



Manik Public School - Manik Nagar, Humnabad, Bidar (Karnataka)



Samaritans For the Nation - Bhadradi Kothagudem

Institutional Visits & Educational Outreach

Student Visits

G. D. Tatkare Polytechnic Visit

Date: 9 February 2026

Participants: 35 students

Location: Kolad, Raigad

Students from G. D. Tatkare Polytechnic visited HPTC to gain exposure to solar technology and renewable energy systems. The visit included an overview of solar applications, manufacturing concepts, and practical discussions on installation and maintenance practices.

Vidya Bharati Primary School Visit

Date: 21 February 2026

Participants: 40 students

A group of 40 primary school students from Vidya Bharati School shiral visited the centre to understand the basics of solar energy and renewable technologies. The visit introduced students to the importance of clean energy and its role in sustainable development.



Khed. Ratnagiri

Operations & Maintenance Activity



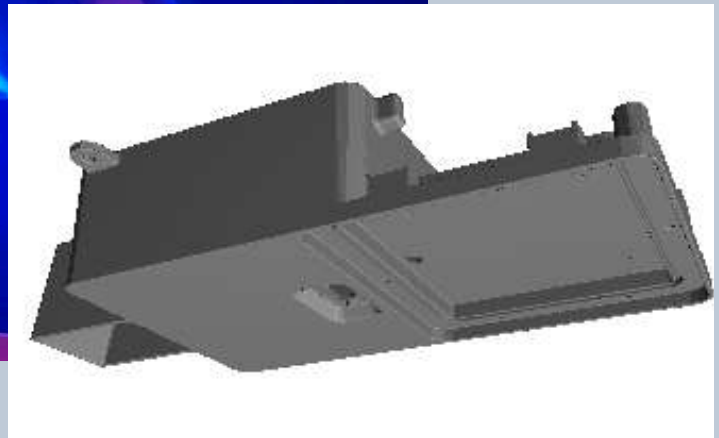
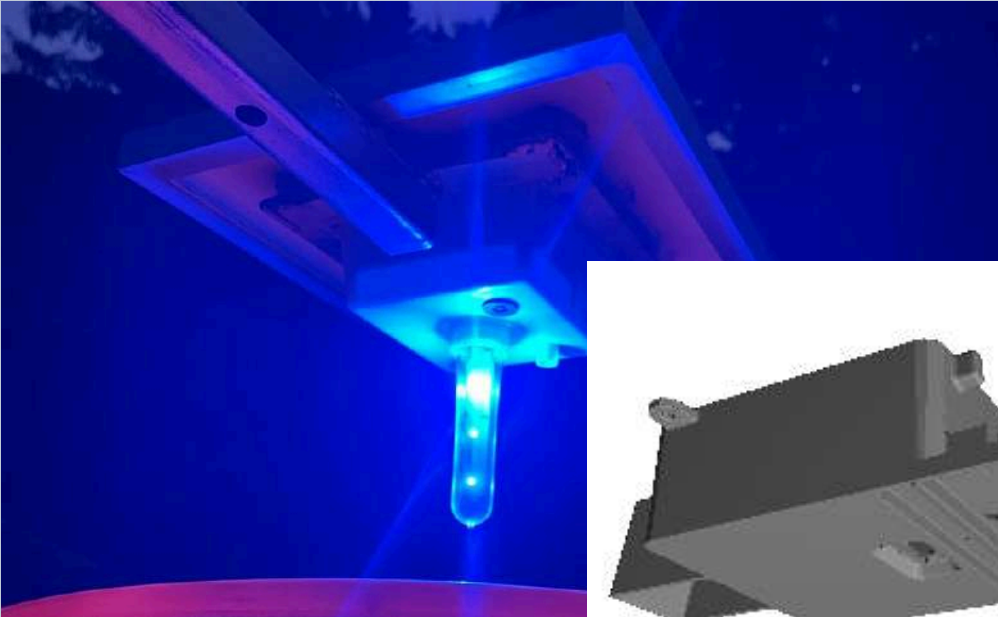
During February 2026, Hoshang Patel Technical Centre (HPTC) carried out several operations and maintenance activities to ensure optimal performance and reliability of installed solar infrastructure.

A repositioning of solar module strings was undertaken at the 100 kW solar power plant at Gharda Hospital to improve solar exposure and enhance system efficiency. This adjustment was carried out after evaluating panel alignment and generation performance.

In addition, routine maintenance of multiple solar installations was conducted to maintain system reliability and operational stability. HPTC also performed the annual service and maintenance of 11 solar streetlights at the Vipassana Centre, Dapoli, ensuring proper functioning, cleaning of components, and inspection of electrical connections.

Regular in-house factory maintenance activities were also carried out to maintain equipment readiness, improve workshop safety, and ensure smooth operational workflow for ongoing solar manufacturing and training activities.

Research & Development Activity



- During February 2026, Hoshang Patel Technical Centre (HPTC) continued its focus on product innovation and design improvement in solar-based technologies and agricultural applications.

Pest Trap Structural Development

- R&D work was carried out on the GI structure design of the solar pest trap system to improve structural strength and field durability. The design improvements focused on optimizing the centre of gravity, increasing mechanical stability, and using heavier and more robust structural materials to withstand outdoor conditions such as wind and long-term environmental exposure. The revised structure also incorporates an innovative mounting approach aimed at improving reliability and ease of installation.

Development of New Aluminium Solar Streetlight Model

- HPTC also initiated the design and development of a new solar streetlight model using aluminium housing. The objective of this work is to create a more durable, lightweight, and thermally efficient design while improving structural aesthetics and serviceability. The upgraded design focuses on better heat dissipation, corrosion resistance, and overall product durability, supporting the development of a next-generation solar streetlight system.
- These research activities reflect HPTC's ongoing efforts to improve product performance, durability, and innovation in renewable energy solutions.

Solar Panel Fixture Mould Development

- Development of a mould for solar panel fixture components is currently in progress. A 3D printed prototype of the design has been produced and is presently under examination to evaluate structural suitability, dimensional accuracy, and manufacturability before final mould fabrication.

Industrial Equipment Utilization Study

- Research was also conducted on the utilization of a 3 HP Variable Frequency Drive (VFD) to explore potential applications in workshop equipment and process control, aimed at improving operational efficiency and energy management within production activities.

Anti-Corrosion Testing for Structural Components

- Testing was carried out on GI and zinc spray coatings for structural poles to evaluate their effectiveness in preventing rust and improving long-term corrosion resistance in outdoor solar installations.
- These ongoing research activities support HPTC's objective of developing durable, efficient, and cost-effective renewable energy technologies and manufacturing solutions.

Khed. Ratnagiri

Continuous Research & Development Activities



- Exploration of low-power solar lighting circuit optimization for improved battery backup.
- Developed modular design concepts for container-based off-grid solar systems to enable faster deployment and scalability in rural areas.
- Improvement of pole folding mechanisms for ease of maintenance
- Development of training demonstration kits for solar-energy education.
- Innovative casing and smart structural design
- Evaluate and socialize latest Gov scheme
- Advancement in the GI structural design of the solar pest trap, focusing on improved mechanical strength, optimized centre of gravity, and enhanced stability for reliable outdoor field performance.
- Experimental study on the use of a 3 HP Variable Frequency Drive (VFD) to improve workshop equipment efficiency and energy control.



Conclusion & Forward Look



- February 2026 reflected HPTC's continued focus on skill development, community engagement, operational reliability, and engineering innovation. Through structured technical training, solar infrastructure support for educational institutions, and consistent maintenance of existing renewable energy systems, the centre continued to strengthen its role in practical renewable energy implementation.
- The ongoing research and development activities demonstrate HPTC's commitment to improving product durability, manufacturing capability, and technology design for solar applications. Looking ahead, the centre aims to further expand training initiatives, advance prototype development, and strengthen institutional collaborations to support sustainable energy solutions and rural development.