

One-Day Visit Report on the Center of Excellence for Youth Development Focusing on Women Empowerment Supported by Bharat Forge Pvt. Ltd. and the Center of Excellence in Digital Manufacturing and Robotic Automation (CoEDMRA), VPKBIET, Baramati by Baramati Industrial Development Association (BIDA) – 23rd February 2025.

Introduction

On February 23, 2025, the Industry-Institute Interaction Cell (IIIC) of Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering & Technology (VPKBIET), Baramati, organized an important visit to two Centers of Excellence (CoE) located on the VPKBIET campus. Dr. Jyoti Rangole, Associate Professor in the Department of Electronics and Telecommunication (ENTC), along with Dr. V. B. Gawande, introduced the Center of Excellence for Youth Development with a focus on Women Empowerment, supported by Bharat Forge Pvt. Ltd. They provided an in-depth overview of the ongoing initiatives and activities within the center. Additionally, Mr. D. D. Rupanwar, Head of the Center of Excellence in Digital Manufacturing and Robotic Automation (CoEDMRA), introduced the CoEDMRA facility and elaborated on the ongoing projects and activities that are part of this center's vision.

Dr. R. J. Patil, Dean of the Industry-Institute Interaction Cell (IIIC), emphasized the core objectives and future initiatives of IIIC in fostering meaningful collaborations between the academic and industrial sectors. Mr. P. V. Dhandore, IIIC Coordinator from the Mechanical Department, efficiently gathered feedback from the visiting guests regarding their experiences with the two Centers of Excellence. Additionally, Mr. Shivaji Raskar from the Electrical Department and Mr. Mayur Gawade from the Electronics and Telecommunication (ENTC) Department were present during the visit, contributing valuable insights and support throughout the event. The visit was carried out in collaboration with the Baramati Industrial Development Association (BIDA), with the objective of fostering industry-academic relations and exploring opportunities for community and youth development. The two Centers visited were:

1. **Center of Excellence for Youth Development Focusing on Women Empowerment** (supported by Bharat Forge Pvt. Ltd.)
2. **Center of Excellence in Digital Manufacturing and Robotic Automation (CoEDMRA)**

The visit focused on highlighting the role of these centers in creating transformative opportunities for the community, especially in terms of empowering women, developing youth, and fostering innovation in the digital manufacturing and automation fields.

About the Centers of Excellence

1. Center of Excellence for Youth Development Focusing on Women Empowerment (Supported by Bharat Forge Pvt. Ltd.):

This center was established with the support of Bharat Forge Pvt. Ltd. to address the critical need for empowering young women and providing them with opportunities for personal and professional development. The center's initiatives are aligned with the vision of creating a more inclusive and diverse workforce, where women have access to equal opportunities for education, skill-building, and leadership development.

The center offers:

- **Skill Development Programs:** A range of programs that focus on enhancing technical skills, leadership abilities, and entrepreneurial acumen in young women.
- **Leadership Training:** A series of workshops and seminars that aim to build confidence, leadership, and decision-making skills among women.
- **Industry Engagement:** Partnerships with local industries that offer mentorship, internships, and career opportunities for women, allowing them to gain hands-on experience and further their careers in various sectors, including manufacturing, technology, and business.

2. Center of Excellence in Digital Manufacturing and Robotic Automation (CoEDMRA), VPKBIET:

CoEDMRA was established to provide a platform for research, development, and training in digital manufacturing, automation, and Industry 4.0 technologies. The center focuses on developing cutting-edge solutions for the manufacturing industry, with particular attention to the integration of robotics, artificial intelligence (AI), and digital technologies. CoEDMRA works to empower students and professionals by equipping them with the skills and knowledge necessary to innovate in this rapidly evolving industry.

CoEDMRA provides:

- **Advanced Technology Labs:** Featuring robotics, 3D printing, IoT, and AI-based systems, CoEDMRA allows students and industry professionals to gain hands-on experience in digital manufacturing and automation.

- **Industry Collaboration:** Through partnerships with industry leaders such as Bharat Forge Pvt. Ltd., the center provides real-world exposure to the latest technological advancements.
- **Project-Based Learning:** The center encourages collaborative, interdisciplinary projects that address the challenges faced by modern industries, particularly in manufacturing and automation.

Objectives of the Visit

The primary objectives of the visit were:

1. **Explore Youth Development and Women Empowerment Initiatives:** To understand the initiatives taken by the Center of Excellence for Youth Development, especially those focusing on empowering women in the workforce, and to explore opportunities for further collaboration in these areas.
2. **Discover Technological Advancements at CoEDMRA:** To observe the advanced technologies at CoEDMRA, including robotics, automation, and digital manufacturing, and understand how they can benefit local industries and help prepare students for the future workforce.
3. **Strengthen Industry-Academia Collaborations:** To explore how both centers can collaborate with local industries to drive innovation, provide skill development, and create opportunities for youth and women in Baramati and beyond.
4. **Foster Dialogue on Inclusivity in Technology:** To discuss the importance of inclusivity in technology and innovation, particularly the role of women and youth in shaping the future of industries such as manufacturing, automation, and digital technologies.

Activities and Discussions

1. Center of Excellence for Youth Development Focusing on Women Empowerment:

The visit to the Center for Youth Development began with an introduction to its various programs aimed at empowering young women. The IIIC members and BIDA representatives had the opportunity to interact with the women participants, who shared their experiences of how the center has positively impacted their lives.

Key activities included:

- **Skill Development Workshops:** Attendees were shown the ongoing workshops on communication skills, leadership training, and entrepreneurship. These workshops are

designed to equip young women with the necessary skills to succeed in various professional environments.

- **Women Entrepreneurs Showcase:** Some of the women who had undergone training at the center shared their entrepreneurial journeys, highlighting the role of the center in helping them start and run their own businesses.
- **Mentorship Sessions:** A highlight of the visit was a series of mentorship discussions where industry professionals, mentors, and women entrepreneurs shared insights on navigating career challenges, achieving work-life balance, and developing a leadership mindset.

2. Center of Excellence in Digital Manufacturing and Robotic Automation (CoEDMRA):

Following the visit to the youth empowerment center, the IIC and BIDA representatives toured CoEDMRA to explore the cutting-edge technologies on display. CoEDMRA's facilities were designed to provide exposure to digital manufacturing, automation, and robotics, and it offers various programs for both students and industry professionals.

Key activities included:

- **Technology Demonstrations:** The attendees witnessed live demonstrations of robotic automation systems, digital manufacturing techniques, and AI-driven processes. These demonstrations highlighted the real-world application of CoEDMRA's research and how industries can integrate these technologies to enhance productivity.
- **Collaborative Projects:** CoEDMRA's collaborative projects with Bharat Forge Pvt. Ltd. were presented, demonstrating how the center is driving innovation in manufacturing through its partnerships with industry leaders.
- **Industry-Academia Interaction:** Discussions were held between faculty, students, and industry representatives on the importance of aligning academic programs with industry needs to prepare students for the future job market. The focus was on how CoEDMRA's initiatives are preparing students to enter the rapidly evolving field of automation and manufacturing.

Outcomes of the Visit

The visit resulted in several positive outcomes:

1. **Empowerment of Women:** The Center of Excellence for Youth Development proved to be a powerful platform for women empowerment, equipping young women with

the skills and mentorship they need to succeed in their careers. The visit encouraged further collaboration to expand these initiatives and reach a broader audience.

2. **Advancement of Technology in Industry:** CoEDMRA's focus on digital manufacturing, robotics, and automation is positioned to play a crucial role in transforming the manufacturing sector. The discussions underscored the importance of integrating emerging technologies into local industries and how CoEDMRA can be a valuable partner in this transformation.
3. **Potential for Collaboration:** The visit highlighted the potential for further collaboration between the centers, VPKBIET, Bharat Forge Pvt. Ltd., and local industries. By combining the strengths of industry expertise with academic research and innovation, Baramati can position itself as a hub for technological advancement and empowerment.
4. **Strengthening Community Engagement:** The focus on women empowerment and youth development demonstrated the broader social impact of these initiatives. The centers play a critical role in fostering community engagement, particularly in rural areas, by providing access to education, skills development, and leadership opportunities.









Visit of Baramati Industrial Development Association to Center of Excellence in Digital Manufacturing and Robotic Automation (CoEDMRA), VPKBIET, Baramati.