ELIXGEN
Systems Management Pvt. Ltd.

ELIXGEN SKILL
PROFILE

INDUSTRY INSIDE INSTITUTE

EXPERIENCE CENTER

PROJECT BASED LEARNING

WELCOME
MESSAGE

Welcome to Elixgen Systems Management Pvt. Ltd. (ESM) unit of Elixir Group of Companies, where innovation meets excellence! Founded by Vijay Kumar, an alumnus of IIT Kharagpur and CMA Rajat Naidu FCMA, MBA,IP,ID and ex KPMG Bahrain, ESM is dedicated to bridging the gap between industry and academia. Our mission is to foster technical competency development across various domains, including aerospace engineering, embedded systems, and product development, while providing consulting services in financial management and strategic solutions.

We are proud to have pioneered the "Industry Inside Institute" model, bringing real-world projects into academic settings, helping students gain invaluable experience. At ESM, we also embrace future-forward technologies with initiatives like smart genset systems, 3Phase Industrial Enegy Monitoring, Smart Agriculture and smart restroom devices, utilizing IoT, data analytics, and machine learning.

We are excited to collaborate with you on your journey toward innovation, learning, and growth. Welcome to ESM—where your future takes flight!

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THE
COMPANY

Elixgen Systems Management Pvt. Ltd. (ESM), part of Elixir Group established in the year 2000 is a forward-thinking organization founded by **Vijay Kumar**, an IIT Kharagpur alumnus and **CMA Rajat Naidu** FCMA, MBA,IP,ID and ex KPMG Bahrain. Initially established as an **engineering consulting firm**, ESM has expanded into **financial management, strategic consulting, and educational services**, offering holistic solutions to businesses and institutions. ESM is renowned for its **technical competency development** in areas such as **aerospace engineering, embedded systems, composite engineering**, and **CAD-based product development**.

ESM introduced the innovative **"Industry Inside Institute"** model, which integrates real-world industry projects into academic environments, allowing students to gain hands-on experience guided by industry professionals. In addition to skill development, ESM has ventured into **Smart System Development**, leveraging **IoT, Machine Learning, and Data Analytics** to create intelligent solutions, including **Smart Agriculture, Smart Genset Systems, Smart Industry** and **Smart Restroom Devices**.

Committed to bridging the gap between industry and academia, ESM empowers the next generation of professionals with the skills and knowledge required for modern industry challenges.

VISION & MISSION

To be a trusted partner in transforming businesses, education, and industries by offering innovative, future-ready solutions in Stressed Assets Management, Skill Development, and Product Innovation. We envision creating a world where strategy meets execution, academia meets industry, and challenges spark sustainable growth. Through expertise, technology, and collaboration, we aim to empower organizations and individuals to achieve their highest potential in a rapidly evolving global landscape.

Our mission is to deliver impactful, customized solutions that address real-world challenges through deep industry insight and hands-on execution. We strive to resolve financial distress, build industry-aligned skills, and drive product innovation using cutting-edge technologies. By fostering collaboration between industry and academia, we aim to create ecosystems that promote continuous learning, resilience, and long-term value. At ESM, we are committed to being catalysts of change, growth, and sustainable progress for our clients and communities.

OUR
SERVICES

At Elixir Strategic Management Pvt. Ltd. (ESM), our services include:

- **Technical Competency Development:** Delivering specialized training in Aerospace Engineering, Embedded Systems, and Product Development to enhance technical expertise.

- **Consulting Services:** Providing expert advice in Financial Management, Strategic Planning, and Engineering Solutions to optimize business performance.

- **Insolvency Professional Services:** Assisting businesses with expert guidance in navigating insolvency and related processes effectively.

- **Financial Solutions:** Offering expertise in Structured Financing, Restructuring, Debt Resolution, Performance Optimization, Risk Management, and Mitigation.

- **Innovative Project Development:** Designing and implementing cutting-edge solutions such as Smart Bus Nearby Alerts, Smart Restroom Systems, Smart Portable Ventilators, and more.

- **Educational Partnerships:** Enhancing learning experiences through our "Industry Inside Institute" model, providing students with practical, hands-on industry exposure.

We are dedicated to driving innovation and growth through our comprehensive range of services.

OUR
SUCCESS

At Elixgen Systems Management Pvt. Ltd. (ESM), our success is defined by our ability to develop and implement cutting-edge, in-house solutions of international standards. We have proudly engineered a range of innovative products including: **Smart PowerPulus, Smart Washroom System, LoRa-based Water Management System, Smart Bus Nearby Alerts, Smart Attendance with Facial Recognition, Smart Agriculture Crop Analytics, Fruits & Vegetables Quality Detection System**

These intelligent systems are a testament to our deep expertise in IoT, data analytics, and machine learning, and our ongoing mission to drive efficiency, safety, and innovation across sectors like smart cities, education, public utilities, agriculture, and transportation.

Our impact extends beyond product development through strategic collaborations with premier institutions, such as GLA University, Nitte Meenakshi Institute of Technology, Dayanand Sagar University, KSR Group of Educational Institutes, Invertis University, Suryodaya College of Engineering & Technology, Directorate of Technical Education (DTE), Mumbai – 6 Zones, Technology consultancy to 100+ colleges across India

These partnerships have enabled us to bring real-world, scalable applications of our technologies into academic environments, preparing the next generation to engage with future-ready solutions and industry-relevant tools.

At ESM, we believe our success lies not only in technology, but in its meaningful integration into society to solve real problems and empower growth.

COE
OVERVIEW

In India, the current technical skill development scenario presents significant gaps in the application of knowledge. Universities deliver knowledge effectively as per the syllabus, and practical sessions are conducted in laboratories in alignment with the curriculum. However, there is minimal focus on real-world applications. On the other hand, EdTech companies attempt to fill the gaps left by traditional institutions, offering knowledge and virtual practicals, primarily using standard data sets. Yet, they too fail to address the critical challenge of applying this knowledge in real-world contexts. Neither universities nor EdTech platforms are effectively bridging this gap. Colleges often highlight student projects, which are displayed as academic achievements but have little to no societal impact or practical usage. This lack of focus on practical application is a major area where India falls short, contributing to unemployment or producing low-skilled engineers who are ill-prepared for real-world challenges.

In response to the current gaps in application-based learning, Elixir Strategic Management Pvt. Ltd**.** (ESM) has initiated a unique concept designed to address these challenges through a program called CoE. ESM proposes the establishment of an "**Industry Inside the Institute" model**, also referred to as the Center of Excellence(CoE). This center will function like a consulting firm within the college or university, tackling real-world problems faced by industries. ESM will source projects from various industries, and students, working alongside the ESM team, will gain hands-on experience by contributing to these projects. This approach will expose students to real-world applications, allowing them to understand and solve practical problems rather than relying solely on theoretical knowledge.

The main objective of COE is to develop end-to-end products, from conceptualization to delivery, all within the facility. This practical, application-driven learning environment prepares students for both employment and entrepreneurial ventures by equipping them with the skills and experience they need to succeed.

OBJECTIVES OF
INDUSTRY INSIDE INSTITUTE

- **Address Application-Based Learning Gaps:**

  Provide practical, real-world problem-solving opportunities for students.

- **Establish "Industry Inside the Institute" Model:**

  Create a Center of Excellence (COE) within colleges/universities to function as a consulting firm addressing industry challenges.

- **Facilitate Industry-Student Collaboration:**

  Source real-world projects from industries for students to work on, gaining hands-on experience alongside the ESM team.

- **Develop End-to-End Products:**

  Focus on developing complete products, from concept to delivery, within the institute's facility.

- **Support Student Entrepreneurship:**

  Provide students interested in starting their own businesses with the opportunity to do so within COE, offering mentorship and resources. College can link existing Government scheme for seed funding.

- **Bridge the Academic-Industry Gap:**

  Expose students to real-world applications and practical problem-solving, complementing their academic education.

- **Replicate Success Across Institutions:**

  Build on the success already demonstrated in eight other colleges/universities where this model has been implemented.

- **Empower Job Creation:**

  Equip students with skills and experience that not only make them employable but also enable them to become entrepreneurs and job creators.

WHY
COE

Real-World Application:

COE focuses on practical, real-world problem-solving, bridging the gap between academic knowledge and industry requirements.

Not a Training Center:

COE is not a traditional training center. It operates as a functional consulting firm (Experience Center) within the institution, offering real projects from industries rather than simulated training exercises.

End-to-End Product Development:

Students gain experience by working on complete product development, from conceptual design to final delivery, enhancing their technical and entrepreneurial skills.

Not an EdTech Platform:

Unlike EdTech platforms that primarily focus on theoretical or virtual learning, ESM and COE provide hands-on, practical exposure by addressing real-world industry challenges.

Industry Collaboration:

By partnering with industries, COE gives students the opportunity to work on live projects, ensuring they acquire experience that is directly applicable to the job market.

Entrepreneurial Opportunities:

For students interested in entrepreneurship, COE provides the platform to launch their own businesses with mentorship, support, and resources, making them job creators.

Proven Success:

COE has been successfully implemented in eight other institutions, showing its effectiveness in preparing students for real-world challenges and entrepreneurial success.

ENTREPRENEURSHIP
SCENARIO

Entrepreneurs are the backbone of the developing world; however, the challenges of a developing economy sometimes make entrepreneurship an arduous task. Availability of mentorship, funding and training can make the path smooth and worth traversing for many want to-be entrepreneurs.

In the current scenario, where young engineers are ill-prepared for real-world challenges, entrepreneurship becomes a daunting task. The lack of practical skills and real-world application hampers their ability to innovate and succeed as entrepreneurs. As a result, only a small percentage, in the single digits, manage to achieve success in entrepreneurship. Colleges, instead of fostering entrepreneurial growth, are often acting as real estate agents, offering incubation spaces without providing the necessary mentorship or guidance. These incubation centers, while offering physical space, fail to deliver the critical support needed for startups to thrive. Without industry-relevant knowledge, real-world experience, and proper guidance, young engineers struggle to navigate the complexities of entrepreneurship. This systemic issue leaves a large portion of aspiring entrepreneurs without the tools they need to succeed, further contributing to the challenges of unemployment and underemployment in India's engineering landscape.

BENEFITS OF
COE

Benefits To Students and Youths

- Industry ready engineer
- Domain expertise
- Students get 2 to 3 years of experience while studying.
- Assistance in quality placements.
- Industrial certification
- Assistance to students who are interested in entrepreneurship.
- Hands-on experience and project-based learning.
- Provide incubation facility for startups.
- Provide the technical and business skills required for a sustainable entrepreneur.

Benefits To College/University

- A strong industry-institute linkage program.
- Enhancing accreditations.
- Empowering faculty members to become industrial consultants.
- Hosting partner to become R&D and Test bed facility for nearby industries.
- Invite industry to use the facility for initial testing.
- Students can be a part of industrial consultancy delivery.

COE
TESTIMONIALS

Suryodaya College of
Engineering & Technology

GLA
University

Invertis
University

Nitte Meenakshi
Institute of Technology

KSR
Group of Educational Institutes

Dayanand Sagar
University

Ganga Institute of
Technology & Management

IIMT
College of Engineering

IDEATION
HUB

Products and Software as Services (SaaS) are developed at the **COE facility**, a dynamic environment where **students** take the lead on **projects** from **concept to completion**. This hands-on experience enables them to create **fully finished products** that meet industry standards. Through our **Industry Inside Institute** initiative, students are not only exposed to cutting-edge technologies but also to real-world challenges, making them **industry-ready engineers** upon graduation.
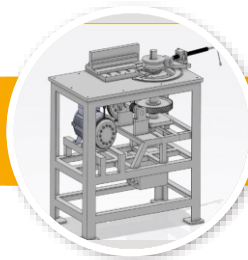
At the COE facility, we emphasize the integration of **Data Science, Machine Learning, Artificial Intelligence, Smart Manufacturing, and IoT**. These technologies are embedded into our projects, ensuring that students gain practical skills in the most relevant and advanced fields. By fostering a culture of innovation and collaboration, we prepare our students to excel in the rapidly evolving landscape of modern engineering and technology.

SMART
AGRICULTURE
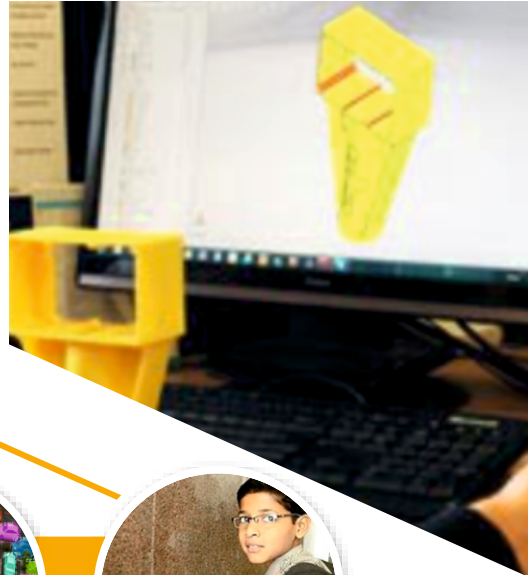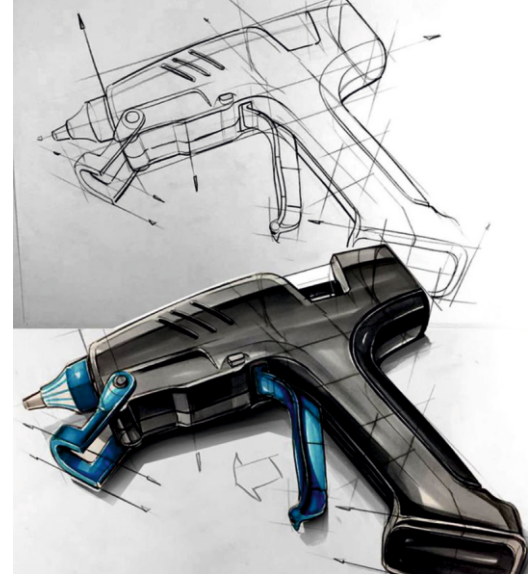CROP ANALYTICS

SMART BUS
NEARBY ALERTS

AUTOMATIC
PIPE BENDING
MACHINE

SMART
ATTENDANCE WITH
FACIAL RECOGNITION

SMART
ELECTRIC
RETROFIT CYCLE

SMART
WATER MANAGEMENT SYSTEM
LoRa

PARKING
AREA MANAGEMENT
WITH DL

SMART
ATTENDANCE COLLEGE
ID WITH RFID

RETAIL SALES
ANALYTICS

SMART
RESTROOM
SYSTEM

3 PHASE
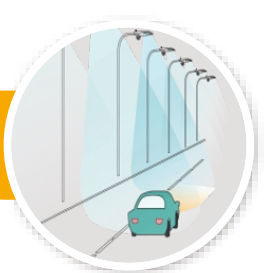INDUSTRIAL ENERGY
MONITORING WITH PF

SMART
POWER GENSET

NUMBER PLATE
DETECTION &
RECOGNITION

FRUITS
VEGETABLES
QUALITY DETECTION

BANK
LOANS
RISK MANAGEMENT

SMART
STREETLIGHT

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