NAAC Format for Presentation of Best Practice 1

1.Title of the Practice	Enhancement Employability through skills development courses across various engineering streams
2.Duration (year of inception-year of discontinuation)	Year of inception:2022-23 Yes, this practice still continuing
3.Objectives of the Practice	**1.**To Integrate **skill development courses** into the curriculum to Promote overall student development 2.Toequip the students with **industry-relevant skills** to increase their employability in competitive job markets and bridge the gap between academics and industry needs **3.** To provideHands-on exposure through **workshops, hackathons, and certifications** to ensures practical competency. **4.** To provide **Continuous feedback** from industry stakeholders to update the curriculum from time to time
4.TheContext	1. Integrating **skill development courses** into the curriculum requires addressing challenges like **balancing academics**, **aligning with industry needs**, **training faculty**, **managing resources**, **engaging students**, and ensuring **interdisciplinary relevance**. 2. Equipping students with **industry-relevant skills** and bridging the gap between **academics and industry needs** requires addressing challenges such as ensuring **curriculum relevance**, providing **practical exposure**, training **faculty**, securing **resources**, building **industry collaborations**, engaging **students**, creating **assessment mechanisms**, managing **time constraints**, developing **soft skills**, and enhancing **placement readiness** **3.** Designing workshops, hackathons, and certification programs for practical competency involves addressing challenges like **skill gaps**, **resource access**, **time management, mentorship, scalability, evaluation, engagement, post-event support, and meaningful certification**. 4. Addressing challenges in continuous industry feedback involves **engaging stakeholders** through **advisory boards, surveys, and timely communication to ensure curriculum relevance and alignment with evolving industry needs.**
5.ThePractice	1. Integration of **skill development** by offering **practical courses** focusing on both **technical** and **soft skills**, embedding them into **core subjects**, and providing opportunities for hands-on learning through **workshops**, **industry certifications**, and **internships**,

	ensuring students gain **real-world experience** and **competencies**. 2. Equipping students with **industry-relevant skills**, **hands-on training**, **certifications**, **internships**, and **collaborations** with industry experts to bridge the gap between **academics** and **industry needs**, enhancing **employability** in competitive job markets. 3. Ensuring**practical competency**, provide **hands-on exposure** through **workshops**, **hackathons**, and **certifications**, offering real-world problem-solving opportunities, mentoring, and access to industry tools and resources. 4. Providing continuous **feedback** from **industry stakeholders**, establish regular **communication channels** such as **advisory boards**, **surveys**, and **collaborations**, ensuring the curriculum stays updated and aligned with current **industry trends** and **skills demands**.
6.Evidence of Success	**1.Integrated skill development courses** •**Value-added courses**, workshops, certifications, and training programs were integrated into the curriculum starting in 2021 to foster industry-relevant skills. • Foundational courses included "Programming for Problem Solving," Python Programming, AI, Java, and Data Analytics. • Specialized courses included like AI Techniques in Electrical Engineering and electives such as Cyber Security, IoT, and Deep Learning prepare students for global job opportunities. **2.**Students are equipped with industry related skills with improved **placement rates**, **internship success**, **industry feedback**, and **employer satisfaction**, shown that the programs effectively enhanced **employability** and prepared students for **competitive job markets**. •**Improved placement rates** and internship outcomes reflect the programs' effectiveness. •**Positive feedback** from **industry stakeholders** and employer satisfaction highlight alignment with job market requirements. **3.** Provided hands-on exposure through **workshops**, **hackathons**, and **certifications** in Indian higher education which bridged the gap between **theoretical learning** and **industry needs.** •Conducted Workshops like IoT and cloud-based incubation and CISCO "IDEATHON" provide practical exposure. **4.** Continuous **feedback**provided from **industry stakeholders** and updated the**curriculum**, institution had established regular **communication channels**, such as **advisory boards**, **surveys**, and **collaborations**, ensuring alignment with **industry trends** and evolving **skills requirements**.
7.Problems Encountered and Resources Required	**1**. Integrating skill development courses into the curriculum problems such as **curriculum rigidity**, **resource constraints**, **faculty resistance**, limited **industry collaboration**, **time conflicts**, difficulties in **scalability**, and challenges in assessing **competency**

	effectively. 2. While equipping students with industry-relevant skills, challenges include **limited resources**, **lack of industry partnerships**, **faculty expertise gaps**, **curriculum inflexibility**, **time constraints** for practical training, and difficulty in **assessing real-world skills**, which hinder effective implementation and scaling of hands-on training, internships, and industry collaborations 3. Providing hands-on exposure through workshops, hackathons, and certifications in Indian higher education faces contests such as **insufficient resources**, **lack of faculty training**, **limited industry collaboration**, **rigid academic schedules**, and **logistical difficulties** in organizing large-scale events, all of which hinder effective implementation and sustainability. 4. Providing continuous feedback from industry stakeholders and updating the curriculum encounters tasks such as **difficulty in establishing regular communication**, **lack of industry engagement**, **resource constraints** for maintaining advisory boards, **slow institutional adaptation** to feedback, and **misalignment** between industry needs and academic priorities, all of which can delay curriculum updates and reduce their effectiveness.
8.Notes (Optional)	The rapidly changing demands of **industries** have highlighted a significant gap between **academic education** and the **practical skills** required in the workforce. **Employers** increasingly value graduates with a blend of **technical expertise** and **soft skills**. To address these challenges, the institution introduced **mandatory skill development courses**, partnered with **industries**, and provided **certifications** in **emerging technologies**. **Practical exposure** is ensured through **hackathons**, **workshops**, and **hands-on training sessions**, preparing students for workforce challenges. These measures not only address **skill gaps** but also align the **curriculum** with **real-world industry needs**, ensuring students are **job-ready** and **competitive**. The initiative continues to foster **employability** and supports students' **professional success**

METHODIST COLLEGE OF ENGINEERING & TECHNOLOGY ★ ABIDS, HYDERABAD. ★ METHODIST

PRINCIPAL
METHODIST COLLEGE OF ENGG. & TECH.
King Koti Road, Abids, Hyderabad.

NAAC Format for Presentation of Best Practice 2

1.Titleof thePractice	Advancing Skills Through Research, Innovation, and Faculty-Student Collaboration
2.Duration(yearofinception-yearof discontinuation)	Yearofinception:2023-24 Yes,thispracticestillcontinuing
3.Objectivesofthe Practice	**1.** To promote a **culture of innovation and research** by nurturing creativity and innovative ideas. **2.** To encourage **research publications and patents** for enhancing academic visibility and fostering industry-relevant contributions. **3.** To support **ideation** and concept development for driving collaborative innovation and solution-oriented thinking. **4.** To enhance **faculty research capabilities** by improving research skills and boosting academic output. **5.** To organize **Faculty Development Programs** (FDPs) for providing ongoing professional growth in research methodologies. **6.** To strengthen the **research ecosystem** through advanced infrastructure and strategic partnerships.
4.TheContext	**1.** Promoting **a culture of innovation and research** faced **resistance to change** among faculty and students accustomed to traditional academic practices. **2.Encouraging research publications and patents** was hindered by **skill gaps** in academic writing and patent filing processes. **3.Supporting ideation and concept development** was challenged by a **lack of access to experienced mentors** for guidance. **4. Enhancing faculty research capabilities** required overcoming **limited access** to advanced training programs. **5. Organizing Faculty Development Programs (FDPs)** was constrained by **budgetary limitations** affecting their quality and reach. 6.**Strengthening the research ecosystem** was limited by a **lack of well-equipped research labs** and facilities
5.The Practice	**1. Promoting** a culture of innovation and research **by fostering** creativity **and** experimentation **over traditional learning** drives **problem-solving, critical thinking, and breakthrough innovations.**

	2. Encouraging research publications and patents **by linking research to** industry-relevant **contributions** boosts **academic visibility,** industry collaboration**, and generates** intellectual property. **3.** Supporting ideation and concept development **through** collaboration **and** solution-oriented thinkingstimulates **an** entrepreneurial spirit**, resulting in practical solutions and stronger industry engagement.** **4.** Enhancing faculty research capabilities **by ensuring faculty stay at the** forefront of research **and guide students in** cutting-edge fieldselevates **research quality, faculty-led projects, and impactful teaching.** **5.** Organizing Faculty Development Programs (FDPs) **for continuous** professional growth **and keeping up with modern methodologies** enhances **faculty skills, promotes global research standards, and improves education quality.** **6.** Strengthening the research ecosystem **through** strategic partnerships **and advanced** infrastructureexpands **research output, attracts** industry funding**, and establishes the institution as a prominent research hub.**
6.Evidence of Success	1. Increased **student participation** in innovation projects and recognition in **national/international contests. Indicates** growth in **creative thinking** and **problem-solving skills.** 2. Growth in **publications** and **patent filings. Indicates** enhanced **academic reputation** and valuable **industry contributions.** 3. Success in **collaborative innovation programs** and **market-ready solutions. Indicates** a stronger **entrepreneurial culture** and **real-world relevance.** 4. More **faculty-led projects** and increased **publications. Indicates** improved **research quality** and **faculty expertise.** 5. Higher**FDP participation** and positive **faculty feedback. Indicates** enhanced **research skills** and improved **teaching quality.** 6. Development of **research labs, industry collaborations**, and increased **funding. Indicates** a growing, productive **research environment** attracting **industry support.**
7.Problems Encountered and Resources Required Please identify the problems encountered and resources required to implement the practice (in about 150 words).	1. **For student participation** in innovation projects and recognition in **national/international contests:** Lack of **motivation**, limited **resources**, and high **competition. Resources: Funding, mentorship**, and **infrastructure** for prototyping. 2.**For publications and patent filings** by faculty and students: Limited experience in **academic writing, patent filing**, and **time constraints. Resources: Training programs, databases**, and **IP consultants.** 3.**For collaborative innovation programs** and **market-ready solutions**: Difficulty in fostering **collaboration** with **industry** and lack of **real-world scenarios. Resources: Industry partnerships, real-world problems**, and **collaboration tools.**

	4.**For faculty-led projects** and **publications**: Limited time for **research**, lack of **funding**, and insufficient **research training**. **Resources**: **Grants**, **time allocation**, and **research databases**. 5.**For Faculty Development Programs (FDPs)**: **Budget constraints**, scheduling conflicts, and low awareness of **faculty development**. **Resources**: **Funding**, expert **trainers**, and **time slots** for FDPs. 6. **For strengthening the research ecosystem**: Limited **research infrastructure**, difficulty in **industry partnerships**, and securing **funding**. **Resources**: **Lab infrastructure**, **industry relationships**, and **grant writing** support.
8.Notes (Optional)	To adopt and implement this best practice in other institutions, several key factors need to be considered. First, strong **institutional support** is crucial for providing the necessary resources, both human and financial, to drive research initiatives. **Faculty engagement** is important, and involving faculty in decision-making and offering continuous **training** in research methodologies, grants, and **intellectual property** management can enhance their capabilities. Establishing **collaborations and partnerships** with industries and external research bodies can expand the scope and relevance of research. Streamlining processes to overcome **bureaucratic hurdles** and aligning academic goals with industry needs is essential. A system for **recognizing and rewarding research** achievements motivates faculty and students to contribute actively to innovative research. Investing in state-of-the-art **research infrastructure** and **digital tools** ensures high-quality research outcomes. Finally, engaging **students** in research through internships and workshops bridges the gap between academic knowledge and **industry requirements**, preparing them for future careers.

METHODIST COLLEGE OF ENGG. ABIDS, HYDERABAD

PRINCIPAL
METHODIST COLLEGE OF ENGG. & TECH.
King Koti Road, Abids, Hyderabad.