Report on

Faculty Development Program

"Faculty Knowledge Exchange Series – Sharing Insights and Inspiring Academic Excellence"

Introduction:

The Internal Quality Assurance Cell (IQAC) of Aditya College of Engineering organized a Faculty Development Program (FDP) titled **"Faculty Knowledge Exchange Series – Sharing Insights and Inspiring Academic Excellence"** from **19 June 2026 to 27 June 2026**. The FDP was envisioned as a faculty-led initiative to foster knowledge sharing, interdisciplinary learning, professional development, innovation, and academic excellence among faculty members. The program provided a vibrant platform for faculty members from various departments to share their expertise, research experiences, innovative teaching practices, and emerging technological advancements, thereby strengthening the institution's culture of continuous learning and quality enhancement.

Objectives of the FDP:

The FDP was organized with the following objectives:

- To provide a platform for faculty members to share knowledge, expertise, and innovative academic practices.
- To enhance professional competencies through exposure to emerging technologies, research trends, and contemporary developments.
- To promote interdisciplinary learning, collaboration, and knowledge exchange among faculty members.
- To strengthen research, publication, technical writing, and quality assurance capabilities in higher education.
- To foster innovative teaching practices, continuous professional development, and academic excellence.

Inaugural Session:

The FDP commenced on **19 June 2026** with an inaugural session graced by **Dr. P. Rayudu, Principal**, **Dr. S. Muni Rathnam, Dean-IQAC**, **Dr. V. V. N. Bhaskhar, Dean Academics**, and **Dr. D. Srinivasulu Reddy, Dean Placement & Training**. The dignitaries emphasized the importance of continuous learning, innovation, research orientation, and collaborative knowledge sharing in achieving academic excellence and institutional quality.

Inaugural Session

Staff members attended the Inaugural Session

Proceedings of the FDP:

The FDP began with an insightful session by **Dr. R. Md. Shafi, Professor & HoD, AI&DS**, on **"Prompt Engineering Mastery: Transforming Academics with AI."** The session demonstrated how prompt engineering can effectively utilize Generative AI tools to enhance teaching, research, content creation, and academic administration. This was followed by a session by **Dr. T. Amaranatha Reddy, Professor & HoD, H&S**, on **"Role of Superconductors in Modern Science and Technology,"** which explored the principles of superconductivity and its applications in advanced scientific and industrial technologies. The day concluded with **Mr. A. M. Rangaraj, Assistant Professor, CSE**, delivering a session on **"Computer Networking Fundamentals: Design, Protocols, and Security Basics,"** providing participants with insights into network architecture, communication protocols, and cybersecurity fundamentals.

Session by Dr. R. Md. Shafi, Prof. & HoD of AI&DS

Session by Dr. T. Amaranatha Reddy, Prof. & HoD of H&S

Session by Mr. A. M. Rangaraj, Asst. Prof. of CSE

Staff members attended the session

On the second day, **Dr. M. Veeresh Babu, Associate Professor & HoD, CSE**, presented **"AI-Driven Approaches for Academic Accreditation and Quality Assurance Systems,"** highlighting the use of artificial intelligence in streamlining accreditation processes and quality management systems. Subsequently, **Dr. K. V. Vara Prasad, Professor & HoD, ECE**, delivered a technical session on **"Advanced Performance Metrics in Machine Learning: Confusion Matrix and Beyond,"** explaining advanced evaluation methods for machine learning models. In the afternoon, **Mrs. Reddy Mubaraq, Assistant Professor, AI&DS**, introduced participants to **"Agentic AI: The Next Evolution Beyond ChatGPT – Transforming Teaching, Research and Student Innovation,"** emphasizing the emerging capabilities of autonomous AI agents. The day concluded with **Mr. J. T. Pramod, Assistant Professor, ECE**, presenting **"Social and Emotional Resilience (SER) for Mental Health and Well-Being,"** focusing on emotional intelligence, stress management, and mental wellness.

Session by Dr M. Veeresh Babu, Assoc. Prof. & HoD of CSE

Session by Dr K. V. Vara Prasad, Prof. & HoD of ECE

Session by Mrs. R. Mubaraq, Asst. Prof. of AI&DS

Session by Mr. J. T Pramod, Asst. Prof. of ECE

The third day featured a session by **Mr. K. Eswara Reddy, Assistant Professor, H&S**, on **"Laugh, Breathe, Teach: Enhancing Well-Being and Effectiveness in Teaching Practice,"** which highlighted mindfulness and positive teaching practices. This was followed by **Mr. B. Gopal Rao, Assistant Professor, AI&DS**, who conducted a session on **"Foundations of Machine Learning: Concepts, Algorithms, and Applications,"** introducing participants to fundamental machine learning techniques and applications. In the afternoon, **Mrs. N. Tejaswini, Assistant Professor, CSE-AI**, delivered a session on **"Emerging Trends and Advanced Applications in Data Science,"** showcasing modern analytical approaches and industry applications. The final session of the day by **Mrs. B. Sasikala, Assistant Professor, AI&DS**, on **"AI Enabled Digital Twins for Intelligent**

Cyber Physical Systems," illustrated the role of AI-driven digital twins in simulation, monitoring, and optimization of engineering systems.

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<tr><td>Session by Mr. K. Eswara Reddy, Asst. Prof. of H&S</td><td></td><td>Session by Mr B. Gopal Rao, Asst. Prof. of AI&DS</td></tr>
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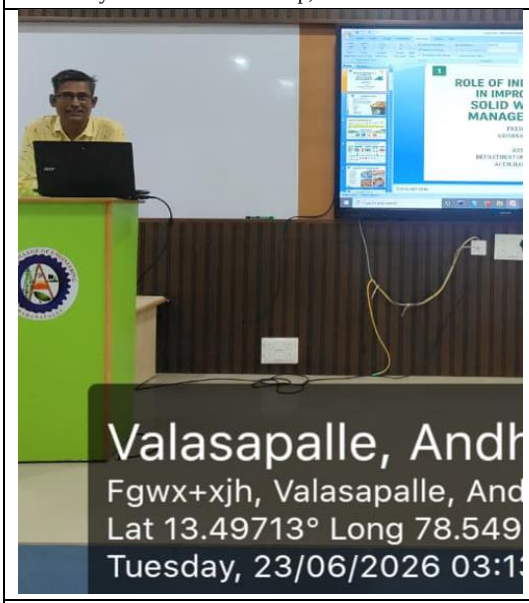
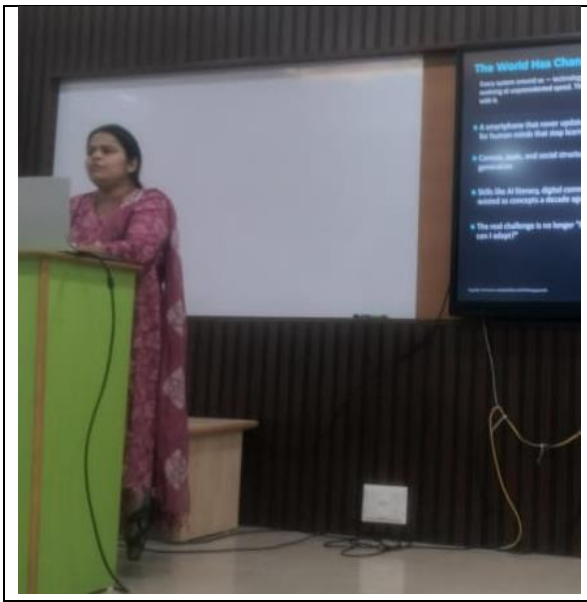
The fourth day focused on research, sustainability, and advanced programming concepts. **Dr. K. Sai Venu Prathap, Associate Professor, ECE**, conducted a session on **"Advanced LaTeX for Technical Writing and Research Publications,"** equipping participants with skills for preparing high-quality research documents. This was followed by **Dr. M. Roshini, Professor & HoD, CSE-AI**, who delivered **"Understanding Agentic AI: The Complete Engineering Framework,"** providing a deeper understanding of the architecture and operation of autonomous AI systems. In the afternoon, **Mr. B. Krishnamurthy, Assistant Professor, CE**, presented **"Individual Participation in Sustainable Solid Waste Management: Strategies and Best Practices,"** promoting environmental sustainability and responsible waste management. The day concluded with **Mr. P. Bhaskar, Assistant Professor, AI&DS**, explaining **"Advanced Method Overriding and Runtime Polymorphism in Object-Oriented Programming,"** strengthening participants' understanding of advanced object-oriented programming concepts.

		
Session by Dr. K. S Venu Prathap, Assoc. Prof. of ECE		Session by Dr. M. Roshini, Prof. & HoD of CSE-AI
		
Session by Mr. B. Krishnamurthy, Asst. Prof. of CE		Session by Mr. P. Bhaskar, Asst. Prof. of AI&DS

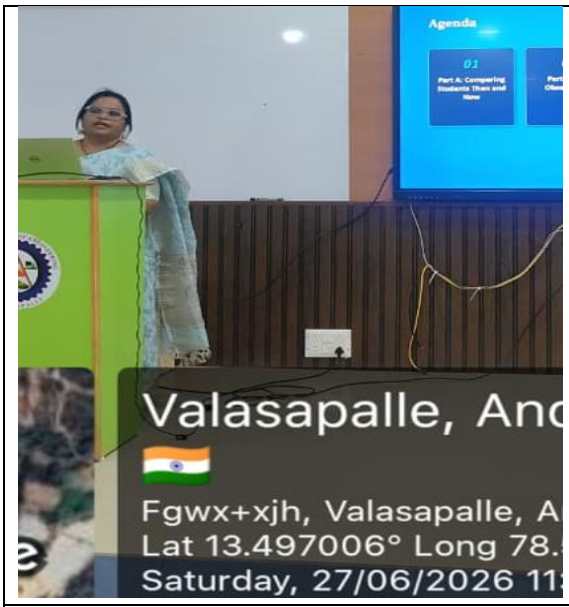
The fifth day offered a blend of interdisciplinary and technical learning experiences. **Dr. S. Vinay Kumar, Associate Professor & HoD, CE**, delivered an engaging session titled **"Andhra Pradesh Decoded: From Soil to Senate,"** providing valuable insights into the state's geography, resources, governance, and socio-economic development. **Dr. K. Sreelalitha, Associate Professor, H&S**, subsequently presented **"Artificial Intelligence: The New Research Assistant for Scientists and Engineers,"** demonstrating the role of AI tools in research activities, literature review, and scholarly writing. In the afternoon, **Mr. P. Reddaiah, Assistant Professor, EEE**, conducted a session on **"Advanced Power Electronics for High-Quality Textile Manufacturing,"** highlighting industrial applications of modern power electronic systems. The day concluded with **Mr. Jagadeesh, Assistant Professor, CSE**, presenting **"Advanced Python Programming: Exception Handling, Modules, and Package Development,"** providing practical insights into building scalable and reliable software applications.

		
Session by Dr.S.Vinay Kumar, Assoc. Prof. & HoD of CE		Session by Dr. K. Sreelalitha, Assoc. Prof. of H&S
		
Session by Mr. P. Reddaiah, Asst. Prof. of EEE		Session by Mr. Jagadeesh, Asst. Prof. of CSE

The sixth day emphasized adaptability, project management, mathematics, and quality control. **Dr. V. R. Sitara, Associate Professor, H&S**, delivered an inspiring session titled **"Rewiring for a Changing World – Learn, Unlearn, Relearn and Adapt,"** encouraging lifelong learning and resilience in a rapidly evolving world. This was followed by **Mr. D. Siva Theja, Assistant Professor, CSE-AI**, who explained the **"Importance of Agile Methodologies"** in software development and project management. In the afternoon, **Mr. K. Jayaprakash, Assistant Professor, H&S**, conducted a session on **"Advanced Numerical Methods: Interpolation and Its Engineering Applications,"** highlighting computational techniques used in engineering problem-solving. The final session by **Mrs. S. Alimmunisa, Assistant Professor, CE**, on **"AI & Data Driven Quality Control,"** demonstrated how artificial intelligence and analytics can support quality monitoring and process optimization.

		
Session by Dr. V. R. Sitara, Assoc. Prof. of H&S		Session by Mr. D. Siva Theja, Asst. Prof. of CSE-AI
		
Session by Mr. K. Jayaprakash, Asst. Prof. of H&S		Session by Mrs. S. Alimmunisa, Asst. Prof. of CE

The concluding day of the FDP featured **Dr. P. Saleema, Associate Professor, H&S**, who delivered a session on **"Generational Differences in Students and Effective Practices for Today's Learners,"** focusing on learner diversity and modern pedagogical strategies. Participants were then introduced to the fundamentals of quantum computing through **Mrs. S. Ameerunnisa Begum, Assistant Professor, ECE**, who presented **"Quantum Computing: Principles, Architectures, and Emerging Technologies."** In the afternoon, **Mr. N. Prakash, Associate Professor, CSE**, delivered a session on **"Advanced Secure Middleware Architectures for Distributed Systems,"** emphasizing secure communication frameworks for distributed applications. The FDP concluded with a reflective and value-oriented session by **Mr. M. Karunakar Reddy, Assistant Professor, ECE**, titled **"Who Am I? Based on Ramana Maharshi Teachings,"** which encouraged self-awareness, ethical values, introspection, and holistic personal development.

		
Session by Dr.P.Saleema, Assoc. Prof. of H&S		Session by Mrs. S. A Begum, Asst. Prof. of ECE
		
Session by Mr. N. Prakash, Assoc. Prof. of CSE		Session by Mr. M. Karunakar, Asst. Prof. of ECE

Outcomes of the FDP:

The FDP enabled participants to:

- Gain exposure to emerging technologies and contemporary research trends.
- Enhance knowledge in Artificial Intelligence, Machine Learning, Data Science, Quantum Computing, and Cyber Physical Systems.
- Improve research writing, publication, and documentation skills.
- Strengthen awareness of quality assurance systems and accreditation requirements.
- Adopt innovative pedagogical approaches and learner-centric teaching methodologies.
- Enhance interdisciplinary collaboration and knowledge-sharing practices.
- Improve professional competencies and lifelong learning abilities.
- Develop awareness of mental well-being, adaptability, and effective educational practices.

Feedback Analysis:

Feedback received from participants indicated a high level of satisfaction regarding the relevance, diversity, and usefulness of the sessions. Faculty members appreciated the interdisciplinary nature of the FDP, the opportunity to learn from peers, and the practical exposure to emerging technologies, innovative teaching practices, research methodologies, and quality assurance mechanisms. Participants expressed a strong interest in conducting similar knowledge exchange programs regularly.

Conclusion:

The Faculty Development Program on **"Faculty Knowledge Exchange Series – Sharing Insights and Inspiring Academic Excellence"** successfully achieved its objectives by providing a dynamic platform for faculty members to share expertise, exchange ideas, and enhance professional competencies. The diverse range of sessions delivered by experienced faculty resource persons enriched participants' knowledge in emerging technologies, research methodologies, quality assurance practices, innovative pedagogical approaches, and personal development. The active participation and collaborative spirit demonstrated throughout the program significantly contributed to strengthening the institution's academic ecosystem and fostering a culture of continuous improvement and excellence.

The Internal Quality Assurance Cell expresses its sincere gratitude to the Management, Principal, Dean-IQAC, resource persons, coordinators, and all participating faculty members for their valuable contributions in making the FDP a grand success.

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