



HINDI SEVA MANDAL'S (ESTD. 1950)

SHRI SANT GADGE BABA COLLEGE OF ENGINEERING & TECHNOLOGY

Best Practice – 1

1) **Title of the Practice: Adoption of Emerging Technologies with the help of Collaborative Training programme (Academic / Teaching Learning).**

2) **Objective of the Practice:**

1. To promote awareness about emerging technologies
2. To build a training and up skilling path for student and faculty
3. To improve performance, productivity and overall efficiency
4. To improve digital transformation workflows and Transcend the skill gaps
5. To promote more collaborations between the academia and industry through better clarity on Training and Placements.


3) **The Context:**

To provide training for acquiring the necessary skills and knowledge for the new technology and up skilling path that starts with a skills assessment.

4) **The Practice:**

- o MOUs with ICT Academy of Huawei Telecommunications (India) Co Pvt. Ltd.
- o Training Programs under APTRON for Web Development and Java Programming.
- o Online Training Programs under the ICT Academy of Huawei for HCIA- Cloud Computing Global Certification Courses and HCIA- Cloud Computing Certification Examination on 30th September, 2022.
- o Online Training Programs under the ICT Academy of Huawei for HCIA- Cloud Computing Global Certification Courses and HCIA- Cloud Computing Certification Examination on 25th November, 2022.
- o Huawei ICT Competition 2021-2022.
- o Huawei Certified ICT Associate in Cloud Computing Certification Examination on 07th April, 2022.
- o HCIA-Cloud Computing Certification Examination on 27th June, 2022.
- o Online Training Programs under the ICT Academy of Huawei for HCIA-Artificial Intelligence Global Certification Courses and Certification Examination on 20th October, 2020.
- o Online Training Programs under the ICT Academy of Huawei for HCIA-Artificial Intelligence Global Certification Courses and Certification Examination on 03rd December, 2020.




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5) Evidence of Success:

- Staff and students have successfully completed Online Training Programs and certification of Huawei for HCIA-Cloud Computing and AI Global Certification Courses
- Students participated in National Final of Huawei ICT Competition India 2021-2022 on 10th February, 2022.
- Staff and Students have completed certification of different professional courses.

6) Problem encountered and Resources required:

- Prerequisite for Certification Examination at International Curriculum were not available.
- Achieving balance in regular Academics and training schedule.
- Number of Certified Trainers.
- Regular hardware upgradation.



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Best Practice - 2

1) Title of the Practice: Embracing Robotics, Computational Thinking Through Participative Learning (Co-Curricular / Extra-curricular).

2) Objective:

- i) To improve the technical skills of students and enhance creativity and innovation.
- ii) To apply knowledge and skills to identify and solve societal and industrial related problems.
- iii) To provide an introduction to Robotics and Automation including robot classification, drones, design and selection, analysis and applications in industry.
- iv) To provide the details of operations for a variety of sensory devices that are used on robot, the meaning of sensing, classification of sensor, that measure position, velocity & acceleration of robot joint.
- v) To familiarize the basic concepts of transformations performed by robot and to perform kinematics and to gain knowledge on programming of robots.
- vi) To convert the prototype into a commercial model leading to entrepreneurship development.

3) The Context:

The revolutionary change in Science, Engineering and Technology has completely changed the measure of the success of a student from theoretical to applied knowledge. There is a huge transformation from theoretical/analytical projects to projects leading to solutions of real time problems. The Robotics and Drone technology are the most emerging sectors as far as Innovation, Employment and Entrepreneurship is concerned. Robotics and Drones is expected to play a pivotal role in sectors such as manufacturing, healthcare, agriculture, and logistics, contributing to increased efficiency, precision, and safety in various industries. Participative learning paves the way towards effective understanding and knowledge sharing.

4) The Practice:

Enhancing creative thinking of students is noteworthy point of this practice. Efforts taken for the same are mentioned as follows:

- i) Two teams are dealing with the Robotics within college campus named as: BlankaBotz and GajCyborg.
- ii) Technical events are organized to improve professional and technical skills of students to enhance their employability.



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- iii) Various student associations such as CESA, FESA, COMPSA, MESA, ECSA and EESA are actively organizes Technical and non - technical events like Future Technocrats, Techzealot, etc.
- iv) Robotic teams (BlankaBotz, Gaj Cyborg, Compbotz) of SSGBCOE&T has been participated beyond the campus Events, Competitions, Technical Symposium at National and International levels.
- v) Students are encouraged to participate in all activities organized by different recognized Government/ Non-Government bodies.

5) Evidence of Success:

- i) **Team BlankaBotz:-**Team BlankaBotz is now recognized as an International Team in Combat Robotics which has not only won almost all major competitions organized by all the IITs, NITs but also won the International Robo-war competitions as “Fighting My Bots”, “Clash of Bots”, “Kings of Bots” played in various cities of China, “BITVA ROBOTOVE - the International Youth festival” at Russia. The team is also involved in Drones, Gliders, as well as various Robotics competitions as Tasking, Pick & Place, and Racing. Team BlankaBotz is now organizing the various events in collaboration with various IITs & NITs.
- ii) **Team GajCyborg:-**Team Gaj Cyborg is the second & rising Robotics team of our institute which has won the various competitions organized by the IITs, NITs of Robo wars, Tasking, Pick & Place, and Racing.
- iii) **Go-Cart:-** Team Gear Lab designed & fabricated the go-cart & participated in the Go-Cart competition at New Delhi where the team won the award for the safe design.
- iv) **Startup** – Students have come up with startups namely Tiltas Systems, and Technobotix, these startup deals with drones and combat robots.
- v) **Participation** – Increased participation and appreciation in National and International Events.
- vi) **AICTE Appreciation** - Solar Mud-House Model won Second Prize at AICTE Vishwakarma Award 2019 at New Delhi



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6) Problem encountered and Resources required:

Due to time boundness of Course curriculum, constraint of adequate time to perform and engage student for the co-curricular and extracurricular initiatives.



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