



SHREE VENKATESHWARA HI-TECH ENGINEERING COLLEGE

Accredited by NAAC with 'A' Grade
Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai
An ISO 9001:2015 Certified Institution
Gobichettipalayam – 638 455, Erode District, Tamilnadu
Web: <http://www.svhec.com/>



INNOVATIONS BY THE FACULTY IN TEACHING AND LEARNING

To enhance the learning experience of students, faculty members of our institution are using innovative methods of teaching and learning process, like e-materials, models, charts, video lectures, role play, mini projects, quiz, student presentation, 3 minutes talk, self-learning, interactive learning, collaborative learning, content beyond the syllabus, workshop and industrial visits. This helps the faculty member to shift conventional method of teaching. The selective list of instructional methods available is given in Table

Name of the Faculty	Name of the Subject	Topic	Instruction Method used
M.Rajesh	Computer Networks	Bluetooth, Wireless LAN and Connecting Devices	Demonstration with kit, Simulation
J.Senthilkumar	Theory of Computation	Automata	NPTEL video lectures
P.V.Jothikandham	Cryptographic and Network Security	Advanced encryption Standard	Animation, NPTEL video lectures
K.Prathipa	Data Structure	Stack and Queue, Tree	Role-play, Animation, Quiz, Real Time Examples
K.Indhumathi	Design and Analysis of Algorithm	LIFO and FIFO Search	Role-play, Animation, NPTEL video lectures, Industry Visit

- Video lectures by the senior faculty members of our Institute and eminent resource persons from other premier institutions, innovations and research works carried out by the faculty and students are available in the institute website (<http://svhec.com/>)
- - Faculty Lectures are conducted with ICT and the following strategies are also used to enhance the students learning Question and Answers
 - Mapping with real world examples
 - Discussion on applications related to context and activities like Role Playing Interaction on topics
 - Conducting Games and quiz related to concepts
 - Learning materials are available in the institute Learning Management System (LMS) for knowledge sharing
 - E-Journals and E-Books are made available in the digital library for the benefit of Students and Faculty members



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- Faculty members are encouraged to publish research articles in referred Journals, presenting papers in Seminars, Conferences etc., All the faculty members are encouraged to participate in SWAYAM, NPTEL, Amrita Virtual Lab, MOOCs, Spoken Tutorials etc.,
- Screen cast subject videos are uploaded in YouTube public domain by the faculty members to improve the students learning and listening skills

State-of-the-Art facilities for training activities

Auditorium with LED projectors, seminar halls with ICT, Internet Connectivity which facilitate the faculty to deliver the training activities effectively.

Technology Workshops for hands on experience

Workshops and Training programmes are conducted by the industry experts. Table shows the details of the Industrial Training Programs for Faculty.

S.No.	Academic Year	Training on Topic	Industry	Date	No. of Faculty Attended
1.	2021-22	Java in Industry	Dream Techno Park	11.03.2022 13.03.2022	2
2.		Data Analytics	Caliber Embedded Technologies, Salem	05.04.2022 07.04.2022	2
3.		Python Programming	SS Technovision, Coimbatore.	21.04.2022 23.04.2022	1
4.	2020-21	OOPs in Industry (Java)	Dream Techno Park	26.12.2021 28.12.2021	2
5.		Big Data Analytics	SS Technovision, Coimbatore.	06.04.2021 08.04.2021	1
6.		Web Technology	Caliber Embedded Technologies, Salem	01.05.2021 03.05.2021	2
7.		C and C++ Programming in Industry	Caliber Embedded Technologies, Salem	15.01.2021 17.01.2021	3
8.	2019-20	Webinar on Machine Learning	SS Technovision, Coimbatore.	26.12.2020 28.12.2020	2
9.		Data base connectivity	Caliber Embedded Technologies, Salem	07.05.2020 09.05.2020	2
10.		Industrial Programming styles	Dream Techno Park	22.05.2020 25.05.2020	2

Table



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Wi-Fi Campus

A 24x7 secured Wi-Fi facility plays a vital role for both Faculty and students in getting connected to global network.

Some of the learning innovations made by the faculty

Following parameters were chosen and a competition was conducted among the classes by Faculty members

- Online courses registration and completion
- English speaking campus
- Collection and distribution of e-materials

Smart Class room facilities:

All the classrooms in SVHEC are Information and Communication Technology (ICT) enabled and is equipped with LCD projectors, computers connected to Internet to utilize the e-resources as a support for the subjects being taught. This enhances the learning experience of the students

Role playing based teaching:

Role play stimulates the imagination and enhance the social development, encourages friendship through cooperation, listening and turn taking. This activity makes the students to develop their knowledge on a specified topic. It solves a particular issue, which creates an opportunity for decision making in a given environment.

Group discussion and 3 minute talk:

Faculty members are using Group discussion, debate and 3 minutes talk based teaching as another innovative Methods. The students are encouraged to deliver a innovative technology for the period of 3 minutes talk which enhances the speaking ability. Learning innovations used by the faculty members for handling the classes (sample subjects) is given in Table



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S.No.	Course Title	Activity	Topic	Team Members
1.	CS6701 Cryptography and Network Security	Role play	Diffie Helman Key Exchange	Jansirani M (732517104012) Sowndharya R.P (732517104047)
		Group discussion	Kerberos	Kanmani M (732517104016) Manju S(732517104021) Kalaivani A(732517104014)
		Debate	Symmetric and Asymmetric Encryption	Shwetha P (732517104043) Nishanthini S(732517104027) Mathina L(732517104023) Vanitha R(732517104311)
2.	CS8391 Data Structures	Group discussion	Stack Implementation	Ajay M(732518104001) Divya G (732518104011) Vigneshwaran P (732518104043) Pavithra C (732518104022)
		Role play	Binary trees	Kavin CS (732518104019) Prasanna V (732518104026)
		Debate	Breadth-first traversal & Depth- first traversal	Ragamalya S(732518104029) Sindhu C (732518104033) Vairamani G(732518104042)

Table

Multimedia Presentation:

Multimedia presentation through video projector enables to project the interactive lesson onto the board which encourages student's critical thinking, problem solving ability, discussion and collaboration

Use of ICT:

It is defined for the purpose of learning process, as a diverse set of technological tools and resource used to communicate, disseminate, store and manage information



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Other e-tool utilizations: Table consists of various e tools used for teaching learning process

Tools	Methods	descriptions
MS Power point	It can be prepared with many of the popular multimedia elements like graphs, models, sound & videos, etc.,	Slide based
NPTEL, Online spoken tutorial, Swayamcourses	Presentation is created and explained by Experts in its specific domain	Video based
Windows movie maker	Presentation is created using movie making concepts of casts, sounds, pictures and scores	Movie based
E-Campus	Course material is available at college website	e content
Virtual labs	Presentation of lab practical and clear demonstration are given	Application based

In addition to the classroom interactions, following the other methods of learning experiences provided by the faculty members to the students:

- Project work and Working with real time projects in Incubation (CSE Incubation centre)
- Python Project based training
- Short/long term Industrial visits
- Internships/Inplant training
- Oral presentation
- Technical Seminars/ symposiums/ workshops
- Technical paper presentations/ Group discussion
- Laboratory Teaching
- Three minutes talking method