



# VASAVI COLLEGE OF ENGINEERING (Autonomous)

9-5-81, Ibrahimbagh, Hyderabad-500031, Telangana, India

(Sponsored by Vasavi Academy of Education)

ACCREDITED BY NAAC WITH 'A++' GRADE

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Dr. K. Ram Mohan Rao  
Professor & Head, Chairman, BoS

Department of Information Technology  
Phone: +91-40-23146050, 6051

## Action Taken on the 12<sup>th</sup> Board of Studies (BoS) Meeting conducted on 24-06-2023 Academic Year 2023-2024

Following are the recommendations of the BoS and action taken by the Department.

### I Year:

1. Introduce "Python Programming" in the first semester and to keep "Structured Programming for Problem Solving" in the second semester.

#### Action Taken :

- The above recommendations are implemented in R23 regulations.

### II Year:

2. Web Technologies course name is changed as "Full Stack Development"
3. Software Engineering course which is currently offered in IV Semester (in R22) is moved to VI semester in R23.
4. Full Stack Development course which is currently offered in VI Semester (in R22) is moved to IV semester in R23.
5. It is recommended to include Reactive Native framework in Full Stack Development Course.

#### Action Taken :

- The above recommendations are implemented in R22 & R23 regulations.
6. Micro Services concepts are to be included either in Full Stack Development or in Cloud Computing.
  7. CI/CD, DevOps, DevSecOps, MLOps concepts are to be included in Full Stack Development Course or to be offered as a new Professional Elective Course.

#### Action Taken :

- Micro Service concepts are planned to cover through workshops. CI/CD DevOps, Dev SecOps, MLOps and other advanced topics are planned to cover through expert lectures from professional societies.

(Dr. K. Shyamala)  
University Nominee

(Dr. Salman Abdul Moiz)  
Subject Expert from UoH

(Dr. Bheemarjuna Reddy Tamma)  
Subject Expert from IITH

(Dr. Raghavendra Kune)  
Subject Expert from Research  
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(Mr. Amit Kumar Gupta)  
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## III Year:

8. Title of DCCN course is changed as "Computer Networks".
9. Artificial Intelligence and Machine Learning (AIML) Course is offered along with lab in V Semester.
10. Mini Project to be removed to accommodate AIML Lab.
11. Neural Networks and Deep Learning (NNDL) Course is converted from Professional Elective to Professional Core course and offered in VI Semester along with Lab.
12. It is recommended to include Case Studies related to System Design in Software Engineering Course.

### Action Taken :

- The above recommendations are implemented in R21, R22 & R23 regulations.

13. It is recommended to include Large Language Models (LLMs), Prompt Engineering and other Open AI initiatives in NNDL course.

### Action Taken:

- LLMs, Prompt Engineering and other Open AI concepts are offered in a new course titled "Generative AI" as a Professional Elective.

## IV Year:

14. Automata Language and Computation & Compiler Construction courses are merged into one course titled "Automata Theory and Compiler Design" along with "Compiler Construction Lab". The course coordinator is asked to prepare the final syllabus for both Theory and Lab Courses.


### Action Taken :


- The above recommendations are implemented in R21, R22 & R23 regulations.

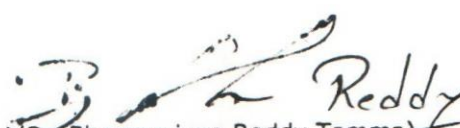
15. Concepts related to Data Privacy Regulation (GDPR & India Security Privacy Laws) are to be included in Information Security Course offered as Professional Elective in VII Semester.

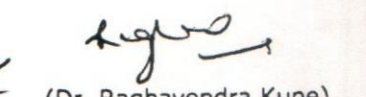
### Action Taken :


- The above recommended concepts are included in Cyber Security Course, offered as a Professional Elective in VIII Semester of R21, R22 & R23 regulations.


  
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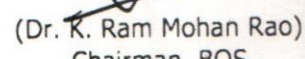
  
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16. It is recommended to include Reinforcement Learning as Professional Elective in VII Semester.

### Action Taken :

- Reinforcement learning course is mandatory for Honours Program in IV Semester. For regular students, the same course is encouraged through MOOCs.
17. It is recommended to include the concepts of ML and DL for remote sensing in Digital Image and Video processing or Computer Vision Courses.

### Action Taken:


- Workshops and Seminars are organized under Professional Society Chapters on ML and DL for remote sensing, and Computer Vision.
18. Data Mining Course syllabus is revised to avoid the overlap with AIML course and the revised syllabus is approved.


### Action Taken:

- The above approved syllabus is considered in R21, R22 & R23 regulations.
19. Enterprise Architecture Course is to be introduced as a Professional Elective IV under Software Engineering Track in place of Object-Oriented Analysis & Design in VII Semester. Online Certification also shall be encouraged through TOGAF (The Open Group Architecture Framework).

### Action Taken:

- The concepts of Enterprise Architecture and the topics of Software Reuse Techniques are to be combined in to a single course as Professional Elective in VIII Semester from AY 2024-25.
- Online Certifications are encouraged through TOGAF (The Open Group Architecture Framework) as part of the assignments in relevant courses based on the feasibility.


  
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## Open Electives offered by Department of Information Technology:

- Open Electives are offered in 4 Tracks as mentioned below.

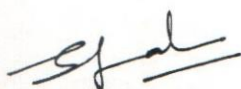
Track	III Sem	IV Sem	V Sem	VI Sem
Credits	2	3	3	3
Track – I General Track	Object Oriented Programming using Java	Introduction to Database Management Systems	Essentials of Operating Systems	Web App Development & Security
Track – II AI&ML Track	Computing using Python	Essentials of Mathematics for ML using Python	Introduction to Artificial Intelligence	Introduction to Machine Learning
Track – III Security & Block Chain	Introduction to Database Management Systems	Cryptography & Network Security	Distributed Databases	Block Chain
Track – IV Data Science	R Programming	Introduction to Data Analytics	Data Analytics & Visualization (tableau)	Big Data & Applications (Hadoop, Spark, Hive)


### Action Taken:


- Courses under Track I and Track II are offered in R22.
- It is recommended to offer a new course covering the concepts of Malware attacks, application security, network security, Network traffic analyser viz., Wireshark in place of "Cryptography & Network Security", under Track-III in VI Semester.


### Action Taken:


- A new course on "Cyber Security" is offered as a Professional Elective in VIII Semester in R21, R22 and R23.

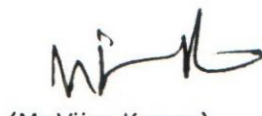
  
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### B.E Honours Program:

1. The syllabus of the course titled "Artificial Intelligence: Principles and Techniques (AIPT)" which is offered in V Semester in R22 has been is modified to avoid the overlap with AIML course in B.E Regular Program and the title of the course is changed to " Computational Intelligence" and accordingly the lab course name is also changed to "Computational Intelligence Lab".
2. It is recommended to rename "Autonomous Navigation Systems" as "Unmanned Autonomous Systems" and the lab name is also changed accordingly as "Unmanned Autonomous Systems Lab".
3. As NNDL Course is now offered as Professional Core in the B.E. Regular Program, and advanced course titled "Reinforcement Learning" is introduced along with the lab, in VII Semester for Honours Program.
4. It is recommended to ensure equal credits for all the courses offered in B.E. Honours program.

### Action Taken :


- The above recommendations are implemented in R21, R22 & R23 regulations.
- All courses in Honors Programme are offered as 3 credit courses instead of 2 credits.
- NPTEL courses are offered for 3 credits instead of 6 credits.


### New Course under IT BOS from AY 2023-24.

1. A course titled "Fundamentals of Data Structures" is offered by the Department of Information Technology from AY 2023-24.
2. Following modifications are suggested to modify the syllabus of "Fundamentals of Data Structures" course.
  - a. Sorting and Searching are to be included in Unit I
  - b. Stacks and Queues are to be merged into one Unit.
  - c. Trees and Graphs are to be discussed in two different units.

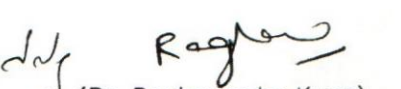
### Action Taken:


- The above suggestions are incorporated.


  
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### General Comments/ Suggestions:

1. It is recommended to explore the possible collaboration with Cyber Security Cell of Telangana Govt.

### Action Plan:

- Collaboration with Cyber Security Cell of Telangana Govt is still to be initiated.
- 2. Include cyber security related courses as part of outreach activity.

### Action Taken:

- The outreach program on cyber security is planed for the AY 2024-25.

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**VASAVI COLLEGE OF ENGINEERING (A): HYDERABAD**

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**Action Taken report on Exit Feedback given by students who passed out in 2023**

S.No.	Feedback	Action Taken
1.	Python can be introduced in the I Semester to complete the necessary prerequisite for the Mathematics Lab.	Python Programming has been introduced in Semester-I from R23 onwards
2.	C Programming to be introduced in II Semester to gain more structured programming concepts. This makes it continuous practice in the subsequent semesters in Data Structures Course.	The course Structured Programming for Problem Solving has been introduced in Semester-II from R23 onwards.
3.	Competitive Programming is to be encouraged through MOOC after II Semester (C++ or any programming for 12 weeks )	Skill Development Course (Technical Skills) has been introduced from B.E. III Semester from R22 onward to encourage students to practice competitive coding.
4.	Software Engineering (SE) and Web Technologies courses to be swapped.	<ul style="list-style-type: none"> <li>- Syllabus of the course Web Technologies has been modified and the course has been renamed as Full Stack Development and introduced in IV Semester from R22 onwards.</li> <li>- The Software Engineering course has been shifted from IV Semester to VI Semester</li> </ul>
5.	Title of DCCN course can be changed as "Computer Networks"	The title of the Data Communications and Computer Networking course has been changed to Computer Networks.
6.	AIML course to be offered along with lab in V Semester	The course Artificial Intelligence and Machine Learning (AIML) has been moved to V Semester to enable students to use the concepts in their Theme-based projects in VI Semester
7.	Mini Project to be removed to accommodate AIML Lab.	The Mini-project in V Semester has been removed to accommodate AIML course with lab.
8.	NNDL Course is to be offered as Professional Core Course along with the Lab.	The course Neural Networks and Deep Learning will be offered as a Professional Core course with supporting Lab
9.	Automata Language and Computation & Compiler Construction courses are to be merged into one course titled "Automata Theory and Compiler Design" along with "Compiler Construction Lab".	The two courses Automata Language and Computation, and Compiler Construction will be merged as a single course "Automata Theory and Compiler Design" supported by a corresponding lab.
10.	Under the track to be offered by Mathematics Department: a. Numerical Methods to be offered in III Semester b. Number theory and Cryptography to be offered in IV Semester	The suggestions have been forwarded to the Department of Mathematics for consideration





**VASAVI COLLEGE OF ENGINEERING (A): HYDERABAD**  
**DEPARTMENT OF INFORMATION TECHNOLOGY**

11.	Data Mining Course syllabus is to be changed to avoid the overlap with the other courses like AIML. Data Warehousing concepts are to be included in the syllabus. More advanced concepts like graph mining, web mining and social media mining is to be included. (PE I)	The Data Mining course has been updated by removing topics which are a repetition from other courses, and, new topics on latest case studies have been included.
12.	Data Analytics and Visualization courses may be offered in VIII semester in place of NLP or Computer Vision course. (PE II)	The course Data Analytics and Visualisation is now being offered in place of the course Natural Language Processing (NLP)
13.	Introduce Cybersecurity course in place of Information Storage Management (ISM) in VII Semester (PE III)	A course on Cyber Security is proposed to be introduced from R21 onwards.
14.	Block Chain is to be offered as PE IV in VII Semester in place of IRS.	A course on Block Chain is proposed to be introduced into the curriculum in place of the course Information Retrieval Systems (IRS) from R21 onwards.
15.	IRS may be offered as PE V in VIII Semester.	The course Information Retrieval Systems will now be offered in the VIII Semester as Professional Elective -V.
16.	All Professional Elective Courses are to be planned to have some weightage for programming/ tool wherever possible.	It has been proposed to include a supporting lab for all the Professional Electives from R21 onwards.
17.	<ol style="list-style-type: none"><li>1. Workshop on open-source content/ code development to be planned in III Semester.</li><li>2. Workshop on Android Development to be offered in V Semester.</li><li>3. All workshops/ training programs are to be planned for a Half Day only to make it effective.</li><li>4. Technical Clubs are to be encouraged at the institute to enable interdisciplinary projects.</li><li>5. Encourage interdisciplinary projects.</li><li>6. Forms to monitor the progress of internships to be modified so as trace the progress during the Project Reviews.</li></ol>	<p>All the suggestions given have been considered positively.</p> <ul style="list-style-type: none"><li>- Department plans to conduct workshops on latest technologies.</li><li>- Department is planning to conduct all workshops only for half-day on each of the days to enable students to work on the concepts during the remaining time.</li><li>- Technical Clubs and Interdisciplinary projects have been started in the department.</li></ul>

  
Faculty In-charge

  
Head of the Department



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**DEPARTMENT OF INFORMATION TECHNOLOGY****Alumni Feedback and Action Taken Report****Academic Year 2023-24**

S.No	Feedback	Alumni details	Action Taken
1	More Practical Knowledge is required than theoretical Knowledge.	G Manoj Kumar, PSE, Pega Systems, 2015 Outgoing Batch	Students are encouraged to implement projects via Mini project sessions and Theme based project sessions
2	Miniprojects can be more appropriate to the market trends .  Focus more on application and real time based Lab sessions	P Sridevi, PSE, Pega Systems, 2015 outgoing Batch  A Vishwaprabath, Analyst, Deloitte Consulting, 2021 passed out Batch	All Miniprojects and Theme based Projects selections are based on current market trends and they are more application oriented.
3	Encourage students regarding open source contributions	KVS Sidhartha, Associate Software Engineer, Micron Technology, 2023 passed out Batch	Wherever possible students are encouraged to use Open source tools for the implementation of their projects
4	Hands on experience should be increased	G Sai Vishal Reddy, Assistant Manager, Deloitte, 2020 outgoing Batch	Workshops are conducted as part of professional body activity to give hands on experience to students
5	Conduct workshops on Industrial changes, More Industry based curriculum	Vasthav Kalluri, Software Development Engineer, AMD India	Workshops are conducted as part of professional body activity on latest tools like React JS etc used in Industry. Curriculum is designed by introducing more courses related to latest Industry trends like Full Stack development, Machine learning and Deep Learning

Faculty I/C

  
HoD, IT



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## DEPARTMENT OF INFORMATION TECHNOLOGY

### Employer Feedback and Action Taken Report Academic Year 2023-24

S.No	Feedback	Action Taken Report
1	Refreshing basic technical knowledge and communication skills via mock interviews is essential	Mock interviews are being conducted by alumni working in different organizations to help students face interviews
2	Knowledge in Python programming, SQL, Data Base concepts, and Machine learning concepts should be provided	Labs for Courses like Python programming, Full stack development, Artificial Intelligence and Machine Learning, Neural Networks and Deep learning are provided as part of the curriculum to enhance their understanding of these subjects

HoD, IT





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## DEPARTMENT OF INFORMATION TECHNOLOGY

### Parents Survey and Action Taken report Academic Year 2023-24

S.No	Feed Back	Action Taken
1	Encourage students to participate in other activities	<ul style="list-style-type: none"><li>- Every Week two hours have been allocated for Co-curricular Activities (CCA)</li><li>- Every week two hours have been allotted for Extra Curricular activities (ECA) and all students are given opportunity to join and participate in events conducted by various clubs</li></ul>