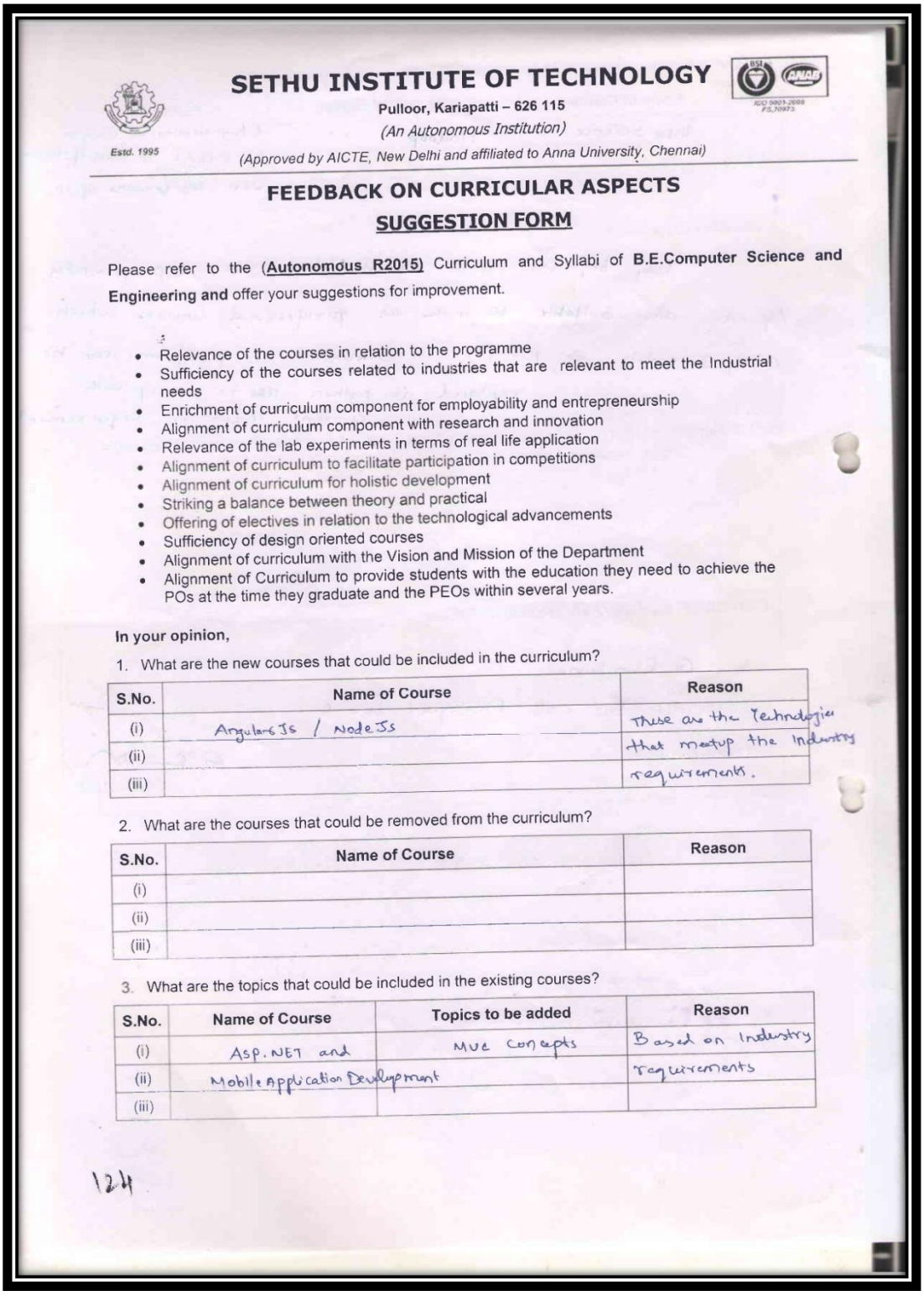
1.4.2 Feedback System of the Institution

Process of Feedback Analysis

- Feedback collected from Stakeholders
- Consolidation of Stakeholders Feedback
- Analysis of Stakeholders Feedback in Programme Assessment Committee
- Discussion in Department Advisory Board
- Recommendation in Board of Studies
- Incorporation of Suggestions in Curriculum / Syllabus

FEEDBACK RECEIVED FROM STUDENTS



SETHU INSTITUTE OF TECHNOLOGY

Pulloor, Kariapatti – 626 115

(An Autonomous Institution)

Estd. 1995

(Approved by AICTE, New Delhi and affiliated to Anna University, Chennai)

FEEDBACK ON CURRICULAR ASPECTS

SUGGESTION FORM

Please refer to the (**Autonomous R2015**) Curriculum and Syllabi of **B.E.Computer Science and Engineering and** offer your suggestions for improvement.

- Relevance of the courses in relation to the programme
- Sufficiency of the courses related to industries that are relevant to meet the Industrial needs
- Enrichment of curriculum component for employability and entrepreneurship
- Alignment of curriculum component with research and innovation
- Relevance of the lab experiments in terms of real life application
- Alignment of curriculum to facilitate participation in competitions
- Alignment of curriculum for holistic development
- Striking a balance between theory and practical
- Offering of electives in relation to the technological advancements
- Sufficiency of design oriented courses
- Alignment of curriculum with the Vision and Mission of the Department
- Alignment of Curriculum to provide students with the education they need to achieve the POs at the time they graduate and the PEOs within several years.

In your opinion,

1. What are the new courses that could be included in the curriculum?

S.No.	Name of Course	Reason
(i)	AngularJs / NodeJs	These are the Technologies that meetup the Industry requirements.
(ii)		
(iii)		

2. What are the courses that could be removed from the curriculum?

S.No.	Name of Course	Reason
(i)		
(ii)		
(iii)		

3. What are the topics that could be included in the existing courses?

S.No.	Name of Course	Topics to be added	Reason
(i)	Asp.NET and	MVC Concepts	Based on Industry
(ii)	Mobile Application Development		requirements
(iii)			

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4. What are the topics that could be removed from the existing courses?

S.No.	Name of Course	Topics to be removed	Reason
(i)	Data Science	Hadoop	R Programming was given as one credit. So some of them were ~~unware~~ it.
(ii)			
(iii)			

5. Any other suggestions:

~~They~~, One credit courses like Python, R programming, Asp.net are suitable to make as professional courses which carry 3 credits. ~~For~~ For 1st Semester, C program can be replaced to python ~~to~~ to cope up with current Industrial Requirement.

Encl. 1: Curriculum and Syllabi
Encl. 2: Department Vision, Department Mission, Programme Educational Objectives (PEOs) and Programme Outcomes (POs)

CATEGORY: Student/Alumni/Faculty/Employer

NAME: G. Ram Kumar

POSITION/TITLE: BE CSE Final year SEC-B

OFFICIAL ADRESS:

G. Ram K.
SIGNATURE

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FEEDBACK RECEIVED FROM ALUMNI

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FEEDBACK ON CURRICULAR ASPECTS

SUGGESTION FORM

Please refer to the (**Autonomous R2015**) Curriculum and Syllabi of **B.E.Computer Science and Engineering and** offer your suggestions for improvement.

- Relevance of the courses in relation to the programme
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- Alignment of curriculum component with research and innovation
- Relevance of the lab experiments in terms of real life application
- Alignment of curriculum to facilitate participation in competitions
- Alignment of curriculum for holistic development
- Striking a balance between theory and practical
- Offering of electives in relation to the technological advancements
- Sufficiency of design oriented courses
- Alignment of curriculum with the Vision and Mission of the Department
- Alignment of Curriculum to provide students with the education they need to achieve the POs at the time they graduate and the PEOs within several years.

In your opinion,

1. What are the new courses that could be included in the curriculum?

S.No.	Name of Course	Reason
(i)	15UCS927 Machine Learning Algorithms (Can be mandated)	Almost every boot strapping companies implementing their products with ML and NLP. A lab course can help more.

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(ii)	15UCS601 Principles of Compiler Design	Can provide sound practical class, this is useful when industry needs new technology to adapt. This course could not be guarantee job for everyone on their freshmen ship, but after some time in hands-on experiance with the field.
(iii)	15UCS901 Multicore Programming	Existing academic courses focus on Software development or data-mangement, yet lags in system level scaling. This course could help to understand system level scaling.

2. What are the courses that could be removed from the curriculum?

S.No.	Name of Course	Reason
(i)	15UCS304 Object Oriented Programming with C++	Can be converged / comparatively thought with java programming. Never go with language based teaching. Instead, a strong practical approach can be done.
(ii)	15UCS405 Software Engineering	Can be provided as elective, software development may vary with team/company. Some may not follow any traditional development process. It is better to least weightage.
(iii)	15UCS702 INSIGHT INTO CLOUD COMPUTING	The course can be learnt using online resources. Hands-on experience needed for the industry on inside.

3. What are the topics that could be included in the existing courses?

S.No.	Name of Course	Topics to be added	Reason

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(i)	15UCS603 ARTIFICIAL INTELLIGENCE	Machine learning, NLP &deep-learning.	Almost every boot strapping companies implementing their products with ML and NLP. A lab course can help more.
(ii)	15UCS306 Database System Concepts	https://www.c-sharpcorner.com/UploadFile/65fc13/types-of-database-management-systems/	The industry relaying on RDMS is no more. An product will require multiple kinds of DB of the use cases. If a students like to be DB expert, he/she needs to learn multiple kinds of DB.
(iii)	15UIT602 MOBILE APPLICATIONS DEVELOPMENT	Android / IOS SDK	Mobile layout will change along technology. It is better to teach/ provide a lab for SDK practise.
(iv)	15UCS501 INTERNET AND WEB TECHNOLOGY	PWA (Portable Web App)	A web-page development method currently adopted by most companies for mobile web-page acceleration.

4. What are the topics that could be removed from the existing courses?

S.No.	Name of Course	Topics to be removed	Reason
(i)	15UCS109 COMPUTER Programming LABORATORY	a) **Word Processing** Document creation, Formatting, Table Creation, Mail merge b) **Spread Sheet** Chart - Line, XY, Bar and Pie, Formula - formula editor.	They don't need to be taught on labs any more. Since, they have become necessary to be learnt for living.
(ii)	15UIT602 MOBILE APPLICATIONS DEVELOPMENT	All Units.	All Units can be converged into one or two units. Rest can be thought with android or IOS SDK.
(iii)	15UCS501 INTERNET AND WEB TECHNOLOGY	PHP	NodeJs and Python has replaced it long time ago.

Encl. 1: Curriculum and Syllabi
Encl. 2: Department Vision, Department Mission, Programme Educational Objectives (PEOs) and Programme Outcomes (POs)

CATEGORY: Alumni

NAME: Naga Balaji T G

POSITION/TITLE: Member Technical Staff at Zoho Corporation.

OFFICIAL ADRESS: No 12, Plot No 16, K.K. Nagar 2nd street, Guduvancherry Srinivasapuram, Kancheepuram - 603202

Naga Balaji T G
SIGNATURE

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FEEDBACK ON CURRICULAR ASPECTS

SUGGESTION FORM

Please refer to the **(Autonomous R2015)** Curriculum and Syllabi of **B.E.Computer Science and Engineering and** offer your suggestions for improvement.

- Relevance of the courses in relation to the programme
- Sufficiency of the courses related to industries that are relevant to meet the Industrial needs
- Enrichment of curriculum component for employability and entrepreneurship
- Alignment of curriculum component with research and innovation
- Relevance of the lab experiments in terms of real life application
- Alignment of curriculum to facilitate participation in competitions
- Alignment of curriculum for holistic development
- Striking a balance between theory and practical
- Offering of electives in relation to the technological advancements
- Sufficiency of design oriented courses
- Alignment of curriculum with the Vision and Mission of the Department
- Alignment of Curriculum to provide students with the education they need to achieve the POs at the time they graduate and the PEOs within several years.

In your opinion,

1. What are the new courses that could be included in the curriculum?

S.No.	Name of Course	Reason
(i)	Python Programming can be included in Sem 1	
(ii)	Basic electrical & Electronics can be addded in	
(iii)	C#d.net framework can be addded in elective Sem 1 or 2	

2. What are the courses that could be removed from the curriculum?

S.No.	Name of Course	Reason
(i)	Of Multimedia part in graphics & multimedia	
(ii)	can be removed & more graphics tools can be	
(iii)	incorporated.	

3. What are the topics that could be included in the existing courses?

S.No.	Name of Course	Topics to be added	Reason
(i)	Java Programming	Multi Threading concepts to be added.	
(ii)			
(iii)			

4. What are the topics that could be removed from the existing courses?

S.No.	Name of Course	Topics to be removed	Reason
(i)	Programming & Data structures can be separated.		
(ii)			
(iii)			

5. Any other suggestions:

other credit based certification courses offered by department may be listed along with curriculum.

Encl. 1: Curriculum and Syllabi
Encl. 2: Department Vision, Department Mission, Programme Educational Objectives (PEOs) and Programme Outcomes (POs)

CATEGORY: Student/Alumni/Faculty/Employer ✓

NAME: P. JEYADURGA

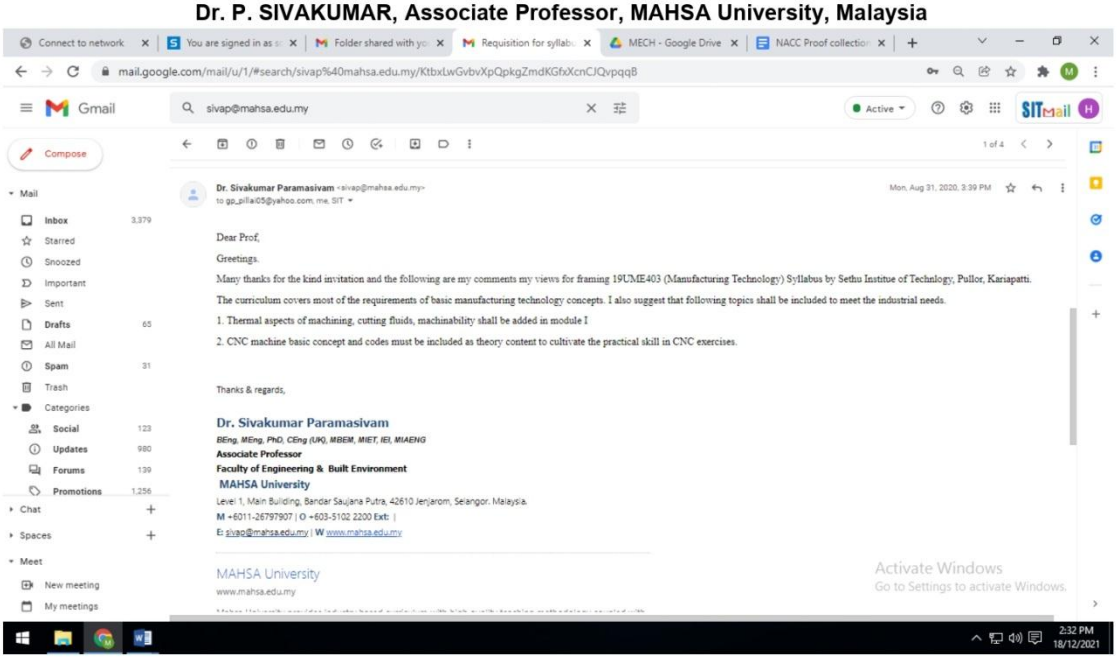
POSITION/TITLE: ASSISTANT PROFESSOR / CSE

OFFICIAL ADRESS: K.L.N college of Engineering, Pottapalayam, Sivagangai distr.

9.9.19
SIGNATURE

FEEDBACK RECEIVED FROM ACADEMICIANS

Dr. P. SIVAKUMAR, Associate Professor, MAHSA University, Malaysia



Dear Prof,

Greetings.

Many thanks for the kind invitation and the following are my comments my views for framing 19UME403 (Manufacturing Technology) Syllabus by Sethu Institue of Technlogy, Pullor, Kariapatti.

The curriculum covers most of the requirements of basic manufacturing technology concepts. I also suggest that following topics shall be included to meet the industrial needs.

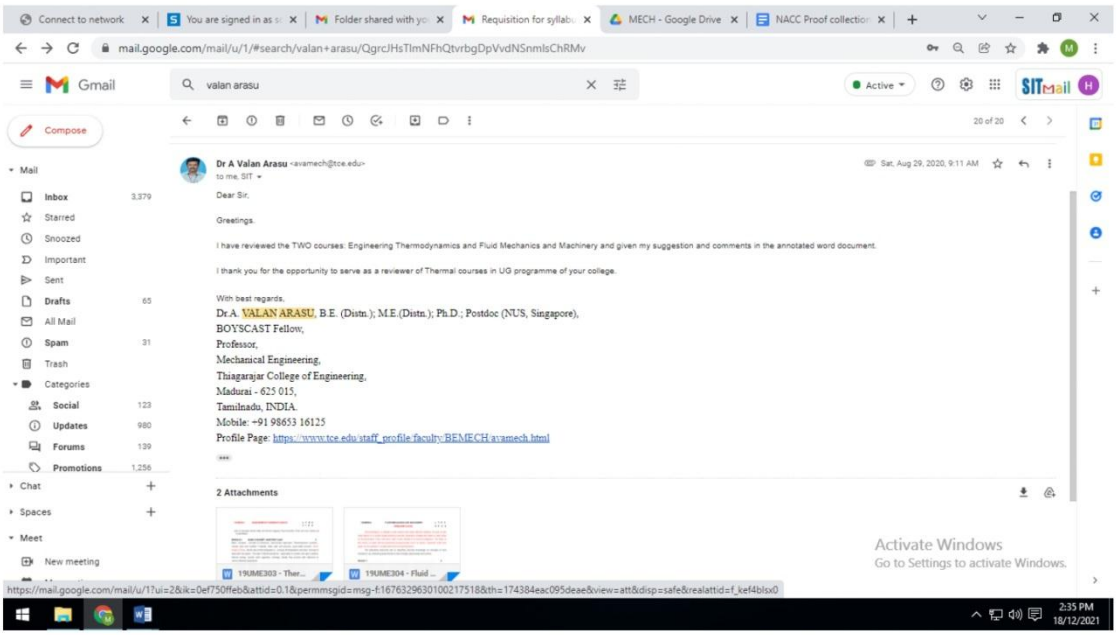
1. Thermal aspects of machining, cutting fluids, machinability shall be added in module I
2. CNC machine basic concept and codes must be included as theory content to cultivate the practical skill in CNC exercises.

Thanks & regards,

Dr. Sivakumar Paramasivam
BEng, MEng, PhD, CEng (UK), MBEM, MIET, IEI, MIAENG
Associate Professor
Faculty of Engineering & Built Environment
MAHSA University
Level 1, Main Building, Bandar Saujana Putra, 42610 Jenjarom, Selangor. Malaysia.
M +6011-26797907 | O +603-5102 2200 Ext:
E: sivap@mahsa.edu.my | W www.mahsa.edu.my

MAHSA University
www.mahsa.edu.my

Dr. A. VALAN ARASU, Professor, Thiagarajar College of Engineering



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FEEDBACK ON CURRICULAR ASPECTS

SUGGESTION FORM

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- Sufficiency of the courses related to industries that are relevant to meet the Industrial needs
- Enrichment of curriculum component for employability and entrepreneurship
- Alignment of curriculum component with research and innovation
- Relevance of the lab experiments in terms of real life application
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- Sufficiency of design oriented courses
- Alignment of curriculum with the Vision and Mission of the Department
- Alignment of Curriculum to provide students with the education they need to achieve the POs at the time they graduate and the PEOs within several years.

In your opinion,

1. What are the new courses that could be included in the curriculum?

S.No.	Name of Course	Reason
(i)	Python Programming – 3 credits	skill needed in industry
(ii)	Mobile App Development – open elective	
(iii)	Principles of Distributed & Systems – elective	

2. What are the courses that could be removed from the curriculum?

S.No.	Name of Course	Reason
(i)	–	
(ii)		
(iii)		

3. What are the topics that could be included in the existing courses?

S.No.	Name of Course	Topics to be added	Reason
(i)			
(ii)			
(iii)			

4. What are the topics that could be removed from the existing courses?

S.No.	Name of Course	Topics to be removed	Reason
(i)			
(ii)			
(iii)			

5. Any other suggestions:

Encl. 1: Curriculum and Syllabi
Encl. 2: Department Vision, Department Mission, Programme Educational Objectives (PEOs) and Programme Outcomes (POs)

CATEGORY: Student/Alumni/Faculty/Employer

NAME: P. GOLDA JEYASHEELI

POSITION/TITLE: Professor / CSE

OFFICIAL ADRESS: Mepco Schlenk Engg. College Sivakasi.

P. Golda Jeyasheeli

SIGNATURE

10H

Department of Computer Science and Engineering

Consolidation of Stakeholders Feedback

The stakeholders reviewed the R2015 Curriculum and Syllabus and offer the following Suggestions. The suggestions given by the stakeholders are consolidated and analyzed. The suggestions are reviewed in the Programme Assessment Committee (PAC) and the resolutions are taken.

Suggestions about the inclusion of NEW Courses:

- Include Image Processing course
- Include Block Chain Technology course
- Include Crypto Currency course
- Include Cyber Security course
- Include system modeling UML course
- Include Virtual Reality and Augmented Reality courses
- include Machine learning course as the Core course
- Include Deep learning course

Suggestions about the removal of EXISTING Courses:

- Remove insight into cloud computing course. This course can be learnt using online resources. Hands-on experience needed for the industry on inside.

Suggestions about the inclusion of NEW Concepts in the EXISTING syllabus:

- Include Bluetooth and Wifi concepts in ‘Mobile Computing’ course.
- Add the topic types of Database management systems in database system concepts. The industry relaying on RDBMS is no more. And the product will require multiple kinds of DB of the use cases. If Students like to be DB expert, he/she needs to learn multiple kinds of DB.
- Add Android / IOS SDK in Mobile Applications Development course, the Mobile layout will change along technology.

- Provide a lab for SDK practice. Change all the topics in Mobile Applications Development course. All Units can be converted into one or two units. Rest can be thought with Android or IOS SDK.
- Add topics like Hadoop, machine learning, storage topics can also be included to meet the industry standards.
- Include Mobile Application Development course
- Modify Project Management and Finance course to project management and research methodology.

Suggestions about replacing EXISTING Concepts in the syllabus:

- Move Software Engineering from the core course to Elective Course because the Software development may vary with team/company.
- Remove PHP in Internet and Web Technology course. NodeJS and Python have replaced it long time ago.

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KARIAPATTI - 626 115.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MINUTES OF PROGRAM ASSESSMENT COMMITTEE MEETING

Academic Year : **2020– 2021**

Date : **02.07.2020**

Time : **02.30 P.M**

- HOD welcomed everyone for the meeting.
- HOD presented the overall course structure and curriculum of R-2019. The syllabus for III and IV semester subjects were presented.
- The stakeholders' feedbacks with respect to design of III and IV semester syllabus were discussed.
- As per the feedback given by the Alumni T.G.Naga Balaji, Member Technical Staff, Zoho Corporation, Kancheepuram.
    - It is decided to include the advanced concepts in database concepts syllabus.
    - It is decided to change Mobile applications Design and Development course as a integrated course.

- Mrs.G.Vaira Suganthi, Faculty Member, suggested to include 4NF and 5NF concepts in database concepts. It is decided to include 4NF and 5NF concepts in database concepts syllabus.

- Mr. R.Faihan Ali, Student Member, suggested to include sorting techniques in data structures syllabus. It is decided to include the sorting techniques in data structures syllabus.

Head of the Department

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PULLOOR, KARIAPATTI – 626 115

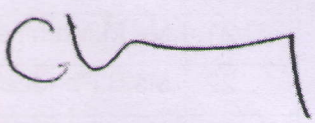
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

BOARD OF STUDIES

MINUTES OF THE MEETIING

The Eighth meeting of the Board of Studies (BoS) of Department of Computer Science and Engineering was held on 28.08.2020 through google meet online mode. The meeting has been proposed to get the approval of Third and Fourth Semester Syllabus of R-2019.

The following members were present,

Sl.No.	Members	Position	Signature
1.	Dr.C.CallinsChristiyana, Professor and Head, Department of CSE, Sethu Institute of Technology, Kariapatti	Chairperson	
2.	Dr.D. Manjula, Professor, CSE, Anna University, Chennai.	University Nominee	Attended through Online Mode
3.	Dr.P. Deepalakshmi, Dean, School of Computing, Kalasalingam Academy of Research and Education, Krishnankovil.	Academic Expert	Attended through Online Mode
4.	Dr. P. Subathra, Professor and Head, Department of IT, Kamaraj College of Engineering and Technology, Virdhunagar.	Academic Expert	Attended through Online Mode
5.	Mr.C.Rajkumar, Director (Chief Architect), Cognizant Technology Solutions, Chennai.	Industry Nominee	Attended through Online Mode
6.	Ms.D.ThamaraiSelvi, Assistant professor,CSE, National Engineering College, Kovilpatti.	Alumni Nominee	Attended through Online Mode
7.	Dr.N.Balaji	Faculty Member	Attended through Online Mode
8.	Dr.M.Parvathy	Faculty Member	Attended through Online Mode

Sl.No.	Members	Position	Signature
9.	Dr.M.M.GowthulAlam	Faculty Member	Attended through Online Mode
10.	Dr.K.Sathish Kumar	Faculty Member	Attended through Online Mode
11.	Mr.P.Suresh	Faculty Member	Attended through Online Mode
12.	Dr.N.AlangudiBalaji	Faculty Member	Attended through Online Mode
13.	Dr.D.AbithaKumari	Faculty Member	Attended through Online Mode
14.	Mr.R.Rajaguru	Faculty Member	Attended through Online Mode
15.	Dr.M.Malathi	Faculty Member	Attended through Online Mode
16.	Dr.C.YesubaiRubavathi	Faculty Member	Attended through Online Mode
17.	Dr.P.Ithayarani	Faculty Member	Attended through Online Mode
18.	Dr.R.RubeshSelvakumar	Faculty Member	Attended through Online Mode
19.	Dr.A.R.Rajeswari	Faculty Member	Attended through Online Mode
20.	Dr.E.Sivajothi	Faculty Member	Attended through Online Mode
21.	Ms.M.Mathinakani	Faculty Member	Attended through Online Mode
22.	Ms.B.Pandeeswari	Faculty Member	Attended through Online Mode
23.	Ms.G.VairaSuganthi	Faculty Member	Attended through Online Mode
24.	Dr.M.Poomani@Punitha	Faculty Member	Attended through Online Mode
25.	Ms.S.Meenakshi	Faculty Member	Attended through Online Mode
26.	Ms.K.Priyadharsini	Faculty Member	Attended through Online Mode
27.	Ms.S.Selvi	Faculty Member	Attended through Online Mode
28.	Dr.B.Guruprakash	Faculty Member	Attended through Online Mode
29.	Ms.K.Nagalakshmi	Faculty Member	Attended through Online Mode
30.	Mr.R.Umesh	Faculty Member	Attended through Online Mode
31.	Ms.B.Lalitha	Faculty Member	Attended through Online Mode
32.	Mr.G.KarpagaKannan	Faculty Member	Attended through Online Mode
33.	Mr.T.Siva	Faculty Member	Attended through Online Mode
34.	Ms.S.Priyadharsini	Faculty Member	Attended through Online Mode
35.	Ms.S. Gospeline Christiana	Faculty Member	Attended through Online Mode
36.	Ms.S.Sangeetha	Faculty Member	Attended through Online Mode
37.	Mr. K. Peer mohamed	Faculty Member	Attended through Online Mode
38.	Mr. K.A. Mohammed Faiz	Faculty Member	Attended through Online Mode
39.	Ms.K.Nithya	Faculty Member	Attended through Online Mode
40.	Ms.T.Punitha	Faculty Member	Attended through Online Mode

Sl.No.	Members	Position	Signature
41.	Mr.I.Noor Mohamed	Faculty Member	Attended through Online Mode
42.	Mr.S.DuraiPandi	Faculty Member	Attended through Online Mode
43.	Mr.B.Sivananthan	Faculty Member	Attended through Online Mode
44.	Ms.M.Sanmugapriya	Faculty Member	Attended through Online Mode
45.	Ms.C.Abinaya Devi	Faculty Member	Attended through Online Mode
46.	Ms.S.MadhuSangeetha	Faculty Member	Attended through Online Mode

The BoS meeting was started with the warm welcome from the Chairman of the Board. The Chairman gave a brief presentation on autonomous status conferred to the Institution and NAAC accreditation with 'A' grade. She then highlighted the University ranks, programs organized, performance of students and faculty in NPTEL online courses, grants received and SITWARE, the student association of the Department of Computer Science and Engineering.

1.0 B.E Computer Science and Engineering

Agenda 1: Analysis of the stakeholders' feedback on curriculum and syllabi

The feedback from the stakeholders, viz. employers, alumni, faculty from other Institutions, parent, internal faculty, and students and the corresponding resolutions made in the Program Assessment Committee (PAC) meetings were presented by the Chairman of the Board. The PAC resolutions with respect to the syllabus of the courses offered in third and fourth semester were discussed thoroughly. After the discussions, the BoS resolved to accept the PAC resolutions with the following modifications.

- The basic communication Technology in Computer Communications and Networks course can be given under Data Communication.
- The NoSQL concepts can be studied in MongoDB as MongoDB is offered as 1-Credit course.
- Advanced database concepts included in the course 19UCS404 - Database System Concepts.
- Include lab hours for the course Mobile applications Design and Development and suggested to offer the course as integrated course

Agenda 2: Approval of Third and Fourth semester syllabi under R-2019

The Board members conducted discussions on the proposed syllabi of the third and fourth semesters under R-2019.

The Board members suggested the following:

- Dr.Manjula D, University Nominee, suggested to:
  - Allocate extra hour for the practical classes with the current distribution of credits for both theory and lab courses without affecting the Minimum Credits of 175 for the Program.
  - Include the advanced topics like parallel database, Distributed database, temporal database and spatial database in the course 19UCS404 - Database System Concepts.
- . Dr. Deepalakshmi P, Academic Expert, suggested to:
  - Change the evaluation pattern for integrated course as to give more weightage to practical component than the theory component and give autonomy to faculty to decide the evaluation pattern.
  - Include latest edition books as the text books and reference books for all the courses.
  - Include Theory hours for the course Mobile applications Design and Development and suggested to offer the course as integrated course
- Dr. Subathra P, Academic Expert, suggested to:
  - Allocate 4 periods for the lab courses and also suggested to round off the credits allocated to the courses.
  - Include the lab course for cryptography and Network security course.
- Mr.Rajkumar Chandrasekar, Industry Nominee, suggested to:
  - Include decentralization concept since this is the basics for Block chain, crypto currency like courses.
  - Remove the concepts swings from the course 19UCS304 - Object Oriented Programming using Java since the concepts were outdated from the Industry and also suggested to include the concepts JavaFx in place of swings. He further suggested including Lambda, anonymous functions and some functional scripts in Object Oriented Programming in Java.

Based on the suggestions, the BOS resolved the following in the approval of third and fourth semester syllabus of R-2019.

- It is resolved to include the topics parallel database, Distributed database, temporal database and spatial database in UNIT-V of 19UCS404-Database Systems Concepts as UNIT-V addresses the advanced concepts.

- It is resolved to consider the 19UCS503-Mobile applications Design and Development course as integrated course with the LTPC distribution of 2+0+3+3.5.
- It is resolved to consider the course credits and semester credits in decimals as AICTE recommendation.
- It is resolved to have Cryptography and Network Security course as a theory course.
- It is resolved to include decentralization concepts in 19UCS919-Blockchain Technology.
- It is resolved to include JavaFX in place of swings in the course 19UCS304-Object Oriented Programming using Java. The topics Lambda, anonymous functions and some functional scripts can be included in the course 19UCS931-Advanced Java Programming as 19UCS304-Object Oriented Programming using Java is offered in third semester level.

Agenda 3: Percentage of changes in the Syllabi:

The BoS resolved to accept the changes in the following courses:

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1	19UCS302-Data Structures	Special Tree Structures removed from the syllabus. Sorting and searching concepts are included. Red Black Tree from search Tree structures and Network Flow problem from Graph structures are removed.	40%
2	19UCS303-Digital Electronics	Digital integrated Circuits are included	10%
3	19UCS304-Object Oriented Programming using Java	JavaFX concepts are included	10%

4	19UCS305-Operating Systems	Disk management and Swap space management topics are removed	5%
5	19UCS306-Computer Organization	Data path, Control Unit, Parallel Processors concepts ,interface circuits and USB concepts are included	25%
6	19UCS308-Data Structures Laboratory	Implementations of sorting and searching concepts are included.	5%
7	19UCS310-Operating Systems laboratory	Working with File commands, Process creation and management are removed. Implementation of segmentation techniques of memory management is included.	10%
8	19UCS402-Computer Communications and Networks	Remote procedure call, basic concepts of cryptography and Digital Signatures and Firewalls are included.	10%
9	19UCS404-Database System Concepts	Fourth and Fifth normal forms concepts and Advanced Database concepts are included.	25%
10	19UCS406-Computer Communications and Networks Laboratory	Implementation of RPC, and Performance Evaluation of Routing Protocols using Simulation tools are included. The implementation of leaky Bucket algorithm for congestion control is removed.	10%
11	19UCS407- Database System Concepts Laboratory	Implementation of Normalization concept is included.	5%

Agenda 4: Introduction of New Courses:

The following new courses to be introduced in the Academic Year 2020-2021 and the curricula are presented before the board of studies.

- B.Tech. Artificial Intelligence and Data Science
- B.E. Computer Science and Engineering(IOT, Cyber Security including Block Chain Technology)

The Board resolved to approve the courses and the curricula.

2.0 M.E Computer Science and Engineering

The members reviewed the curriculum and syllabi of M.E. Computer Science and Engineering followed under autonomous regulations 2019 and resolved to accept the changes in the following courses

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1	19PCS513 - Deep Learning Techniques	Monte Carlo models is renamed as Monte Carlo Methods. Boltzmann Machines for Structured or Sequential Outputs is included. Performance Metrics - Default Baseline Models - Determining whether to Gather More Data - Selecting Hyper parameters - Debugging Strategies - Example: Multi-Digit Number Recognition	40%
2	19PCS525- Smart Sensors and Internet of Things	In Unit IV the topic "Photolithography and Electroplating" are excluded. The topic "Usefulness of Silicon Technology in Smart Sensor "is excluded.	20%
3.	19PCS505-Machine Learning Techniques	In Unit II the topic Beyond Binary Classification: Multi-class/Structured Outputs, Ranking is excluded. The topic Deep Learning and Feature Representation Learning is excluded from the Unit III. In Unit III, the topics such as Independent	40%

		Component Analysis, Apriori algorithm, Singular value decomposition are included. In Unit V the topic " Applications of Machine Learning in the Real world Environments is included	

The Chairperson thanked the members for their contribution and suggestions in framing the curriculum and syllabi for B.E. Computer Science and Engineering and M.E Computer Science and Engineering under Autonomous regulations. She thanked the members of the Board on behalf of the Department of Computer Science and Engineering for their wonderful suggestions and contribution to frame the curriculum and syllabi.

Chairperson
Board of Studies
Computer Science and Engineering

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution | Accredited 'A' Grade by NAAC)

PULLOOR, KARIAPATTI – 626 115

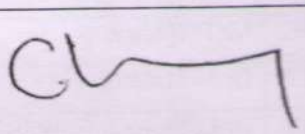
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DEPARTMENT ADVISORY BOARD

MINUTES OF THE MEETIING

The meeting of the Department Advisory Board of Department of Computer Science and Engineering was held on 28.08.2020 through Google meet online mode.

The following members were present,

Sl.No.	Members	Position	Signature
1.	Dr.C.Callins Christiyana, Professor and Head, Department of CSE, Sethu Institute of Technology, Kariapatti	Chairperson	
2.	Dr. P. Golda Jeyasheeli Professor, Department of CSE, MepcoSchlenk Engineering College, Sivakasi	Academic Expert	Attended through Online Mode
3.	Ms.A. Mathumitha, Amazon,Chennai	Industry Nominee	Attended through Online Mode
4.	Ms.D.Thamarai Selvi, Assistant professor, CSE, National Engineering College, Kovilpatti.	Alumni Nominee	Attended through Online Mode
5.	R. Faihan Ali, Final Year, Department of CSE, Sethu Institute of Technology, Pulloor.	Student Member	Attended through Online Mode
6.	F. Thahir Hussain, Third Year, Department of CSE, Sethu Institute of Technology, Pulloor.	Student Member	Attended through Online Mode
7.	B.Mohammed ilham khan, Second Year, Department of CSE, Sethu Institute of Technology, Pulloor.	Student Member	Attended through Online Mode
8.	Mrs.R.Veeramani M/o. P.Deepthi Sharon, Third Year 'A',	Parent Member	Attended through Online Mode

Sl.No.	Members	Position	Signature
	Department of CSE, Sethu Institute of Technology, Pulloor.		
9.	Dr.N.Balaji	Faculty Member	Attended through Online Mode
10.	Dr.M.Parvathy	Faculty Member	Attended through Online Mode
11.	Dr.M.M.GowthulAlam	Faculty Member	Attended through Online Mode
12.	Dr.K.Sathish Kumar	Faculty Member	Attended through Online Mode
13.	Mr.P.Suresh	Faculty Member	Attended through Online Mode
14.	Dr.N.AlangudiBalaji	Faculty Member	Attended through Online Mode
15.	Dr.D.AbithaKumari	Faculty Member	Attended through Online Mode
16.	Mr.R.Rajaguru	Faculty Member	Attended through Online Mode
17.	Dr.M.Malathi	Faculty Member	Attended through Online Mode
18.	Dr.C.YesubaiRubavathi	Faculty Member	Attended through Online Mode
19.	Dr.P.Ithayarani	Faculty Member	Attended through Online Mode
20.	Dr.R.RubeshSelvakumar	Faculty Member	Attended through Online Mode
21.	Dr.A.R.Rajeswari	Faculty Member	Attended through Online Mode
22.	Dr.E.Sivajothi	Faculty Member	Attended through Online Mode
23.	Ms.M.Mathinakani	Faculty Member	Attended through Online Mode
24.	Ms.B.Pandeeswari	Faculty Member	Attended through Online Mode
25.	Ms.G.VairaSuganthi	Faculty Member	Attended through Online Mode
26.	Dr.M.Poomani@Punitha	Faculty Member	Attended through Online Mode
27.	Ms.S.Meenakshi	Faculty Member	Attended through Online Mode
28.	Ms.K.Priyadharsini	Faculty Member	Attended through Online Mode
29.	Ms.S.Selvi	Faculty Member	Attended through Online Mode
30.	Dr.B.Guruprakash	Faculty Member	Attended through Online Mode
31.	Ms.K.Nagalakshmi	Faculty Member	Attended through Online Mode
32.	Mr.R.Umesh	Faculty Member	Attended through Online Mode
33.	Ms.B.Lalitha	Faculty Member	Attended through Online Mode
34.	Mr.G.KarpagaKannan	Faculty Member	Attended through Online Mode
35.	Mr.T.Siva	Faculty Member	Attended through Online Mode
36.	Ms.S.Priyadharsini	Faculty Member	Attended through Online Mode
37.	Ms.S. Gospeline Christiana	Faculty Member	Attended through Online Mode
38.	Ms.S.Sangeetha	Faculty Member	Attended through Online Mode
39.	Mr. K. Peer mohamed	Faculty Member	Attended through Online Mode
40.	Mr. K.A. Mohammed Faiz	Faculty Member	Attended through Online Mode

Sl.No.	Members	Position	Signature
41.	Ms.K.Nithya	Faculty Member	Attended through Online Mode
42.	Ms.T.Punitha	Faculty Member	Attended through Online Mode
43.	Mr.I.Noor Mohamed	Faculty Member	Attended through Online Mode
44.	Mr.S.DuraiPandi	Faculty Member	Attended through Online Mode
45.	Mr.B.Sivananthan	Faculty Member	Attended through Online Mode
46.	Ms.M.Sanmugapriya	Faculty Member	Attended through Online Mode
47.	Ms.C.Abinaya Devi	Faculty Member	Attended through Online Mode
48.	Ms.S.MadhuSangeetha	Faculty Member	Attended through Online Mode

- The Chairman of the Department Advisory Board welcomed the members of the Board with warm greetings.

- The Chairman briefed about the Department inception, programmes offered, accreditation, faculty, research center and permanent affiliation details along with Institution features.

- The Chairman showed the achievements of the Department programmes organized, performance in NPTEL online courses by faculty and students, grants received, and student association activities.

- She then demonstrated the building blocks of the Outcome Based Education (OBE); Vision and Mission statements, PEO, PO, and CO statements. An array of mappings between OBE components were put forth to the members of the Board.

- The feedback from the stakeholders, viz. employers, alumni, faculty from other Institutions, parent, internal faculty, and students and the corresponding decisions made in the Program Assessment Committee (PAC) meetings were presented by the Chairman of the Board. The PAC resolutions with respect to the syllabus of the courses offered in third and fourth semester were discussed thoroughly.
- The Chairman requested the members of the Board to offer their suggestions.

- Dr. P. Golda Jeyasheeli, Academic Expert, suggested to
  - Reduce the Integrated course credits to 4 instead of 4.5.
  - Increase more number of integrated courses.
  - To give only one objective for each course

- Ms. A. Mathumitha Member – Industry, suggested to
  - Include software testing course as core course.

- PO/PSO attainment of the batch 2016-2020 is analyzed. The observations on the attainment and the corresponding action taken to improve the attainment are reviewed and recommended.

The Board meeting ended after the fruitful discussion with the Board members followed by the vote of thanks from the Chairman of the Board.

Chairman,
Department Advisory Board,
Department of CSE.

INCORPORATION OF SUGGESTIONS IN SYLLABUS

19UCS404	DATABASE SYSTEM CONCEPTS	L	T	P	C
		3	0	0	3

PRE-REQUISITE: Introduction Computer Science and Engineering

COURSE OBJECTIVES :

- To impart the knowledge in Relational Database Management Systems.
- To inculcate knowledge Normalization techniques.
- To familiarize in transaction management.
- To understand the storage and retrieval mechanisms in Databases.
- To learn query optimization techniques.
- To gain knowledge in advanced databases.

UNIT I	RELATIONAL DATABSES	9

Purpose of Database System – Views of data – Database System Architecture – Introduction to relational databases – Relational Model – Keys – Relational Algebra – SQL fundamentals – Advanced SQL – Embedded SQL – Dynamic SQL

UNIT II	DATABASE DESIGN	9

Entity-Relationship model – ER Diagrams – Enhanced ER Model – ER to Relational Mapping – Functional Dependencies – Non-loss Decomposition – First, Second, Third Normal Forms, Dependency Preservation – Boyce-Codd Normal Form – Multi-valued Dependencies and Fourth Normal Form – Join Dependencies and Fifth Normal Form

UNIT III	TRANSACTION PROCESSING AND CONCURRENCY CONTROL	9

Transaction Concepts – ACID Properties – Schedules – Serializability – Concurrency Control – Need for Concurrency – Locking Protocols – Two Phase Locking – Deadlock – Transaction Recovery - Save Points – Isolation Levels – SQL Facilities for Concurrency and Recovery

UNIT IV	IMPLEMENTATION TECHNIQUES	9

RAID – File Organization – Organization of Records in Files – Indexing and Hashing –Ordered Indices – B+ tree Index Files – B tree Index Files – Static Hashing – Dynamic Hashing – Query Processing – Algorithms for SELECT and JOIN operations – Query optimization using Heuristics

and Cost Estimation		
UNIT V	**ADVANCED TOPICS**	**9**
Database Security: Authentication, Authorization and access control, DAC, MAC andRBAC models, Intrusion Detection-Object oriented and object relational databases - Web databases - Distributed databases–Parallel Databases-Temporal Databases- Spatial Databases. **TOTAL:45 Periods**		

COURSE OUTCOMES:

After the successful completion of this course, the student will be able to

- Explain the basic as well as advanced concepts of DBMS. (Understand)
- Apply the concepts of DBMS to find solutions to a broad range of queries (Apply)
- Analyze various database design techniques to develop a database application for a given scenario. (Analyze)
- Evaluate various storage and query evaluation plans to optimize query cost (Evaluate)
- Design Database for a given real life scenario using the concepts of Relational model and ER diagrams (Create)
- Work individually or in teams and demonstrate the solutions to the given exercises through presentation (Affective Domain)

TEXT BOOKS:

1. Abraham Silberschatz, Henry F. Korth, S. Sudarshan, “Database System Concepts”, McGraw Hill Education (India) Private Limited, Sixth Edition, 2013

REFERENCE BOOKS:

1. Ramez Elmasri and Shamkant B.Navathe, “Fundamentals of Database Systems”, Fifth Edition, Pearson Education, 2008.
2. Raghu Ramakrishnan, “Database Management Systems”, Fourth Edition, Tata McGraw Hill, 2010.
3. C.J.Date, A.Kannan, S.Swamynathan, “An Introduction to Database Systems”, Pearson Education, Eighth Edition, 2006.
4. AtulKahate, “Introduction to Database Management Systems”, Pearson Education, New Delhi, 2006.
5. Alexis Leon and Mathews Leon, “Database Management Systems”, Vikas Publishing House Private Limited, New Delhi, 2003.

19UCS503	MOBILE APPLICATION DEVELOPMENT	L	T	P	C
		2	0	3	3.5

PRE-REQUISITE:

COURSE OBJECTIVES :

- Aims at providing techniques for deploying and testing mobile applications, and for enhancing their performance and scalability
- Identify the capabilities and limitations of mobile platforms that affect application development and deployment
- Elaborating the characterization and architecture of mobile applications
- Analyzing the impact of technology and business trends in mobile application development

UNIT I	INTRODUCTION TO MOBILE APPLICATION DEVELOPMENT	6 + 9

Introduction – Android architecture overview – Application manifest file - User level and project level gradle - Android Application lifecycle – Android activities – Write and view logs with Logcat - Android user interface fundamentals – Android widgets - Layouts – User interaction – User input controls – Event Handling - Building an APK.

Lab Exercise

1. Develop an application that uses GUI components, Font and Colors in various layouts.
2. Develop an android application to implement a User Input Control.
3. Develop an android application to demonstrate simple event handling.

UNIT II	USER INTERFACE DESIGN FUNDAMENTALS AND INTENT FILTERS	5 +12

Menus – Fragments – Views – Adapters – Drawables - styles – themes – material design - Intent overview – Implicit intents – Explicit intents – Intents with activities – Intents with broadcast receivers.

Lab Exercise

4. Develop an android application to implement a custom design Action Bar.
5. Develop an android application to implement Menus.
6. Develop an android application to implement Fragments.
7. Develop an android application customized Sending Email, Sending SMS and Phone Calls using Intent and intent filter.

UNIT III	SENSORS AND LOCATION BASED SERVICES	6+6

Sensors and sensor manager – Monitoring device monitor and orientation – Environment sensors – Maps – Geocoding and location based services – Using location based services –Selecting a location provider – Using geocoder – Creating Map based activities.

Lab Exercise

8. Develop an android application to implement a Location Based Services.
9. Develop an android application to implement a Sensors.

UNIT IV	MULTIMEDIA, TELEPHONY AND SMS MANAGER	7+12

Audio, Video and Using the camera – Playing Audio and video – Manipulating raw audio – Using audio effects – Using the camera for taking pictures – Recording video – Bluetooth and WI-FI – Using Bluetooth – Managing Wi-Fi - Telephony and SMS – Using Telephony – Sending SMS and MMS

Lab Exercise

10. Develop a simple media player like application using services.
11. Develop an application to capture image using built in camera
12. Develop a simple Video player like application using video view and video Recorder.
13. Develop an application that creates an alert upon receiving a message and call.

UNIT V	DATABASE CONNECTIVITY	6+6

Overview of Cloud services and functions – Introduction to SQLlite and Firebase – Features of SQLlite and Firebase –SQLlite : CRUD Operations. Firebase : Adding Android application to Firebase – Firebase Database - Store data into Firebase – Read data from Firebase – Firebase Authentication – Firebase storage – Firebase hosting.

Lab Exercise

14. Develop an android application to demonstrate SQLite Database.
15. Develop an android application to demonstrate Firebase Database.

TOTAL: 75 Periods

COURSE OUTCOMES:

After the successful completion of this course, the student will be able to

- Gain knowledge about the fundamentals of mobile application development tools and concepts (Understand)
- Develop solutions to existing problems by building an effective and advanced application using integrated development environment.(Apply)

- Analyze the existing security issues in real world scenario and build a secure, reliable and effective mobile application. (Analyze)
- Evaluate the prominence of the deployed android application using Cloud hosting function. (Evaluate)
- Design a full stack android mobile application that can be deployed to the real world. (Create)
- Follow the design pattern and effectively communicate with team members to developan effective software product. (Affective domain)

TEXT BOOK:

1. "Head first android development, A brain friendly guide" – Dawn Griffiths and David Griffiths, Oreilly, third edition, 2015.

REFERENCE BOOKS:

1. "Android Application development", O'reilly, Rick rogers, John Lombardo, Zegurdmednieks& Blake meike, 2009.
2. "Android 4 Application development" ,Retomeier, Jonhwiley& sons, 2007.

HARDWARE & SOFTWARE REQUIREMETs:

HARDWARE REQUIREMENTS:

- Processor : I3 and above
- RAM SIZE: 4GB and above

SOFTWARE REQUIREMENTS

- Java JDK
- Android studio
- Emulator