

# GUDLAVALLERU ENGINEERING COLLEGE

(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)

Seshadri Rao Knowledge Village, Gudlavalleru

*Department of Civil Engineering*

15-07-2019

## Stakeholder's Feedback for Curriculum design – R17

S.No.	Stake holders	Feedback
1	Faculty	<ol style="list-style-type: none"><li>1. Curriculum should fulfill the need of Industry, sufficient to bridge the gap between industry standards /current global scenarios.</li><li>2. Curriculum should be balanced with regard to the theoretical and practical knowledge,</li><li>3. Curriculum should provide opportunity for conducting research and project related activities.</li><li>4. The contents should be in tune with competitive exams like GATE etc,</li><li>5. Add courses to improve Skill development</li></ol>
2	Students	<ol style="list-style-type: none"><li>1. Curriculum may be revised including new topics, job oriented courses, training for facing interviews during campus selection</li><li>2. Flexibility in curriculum and need for skill oriented courses was suggested.</li><li>3. The curriculum should include advanced learning modules.</li></ol>
3	Alumni	<ol style="list-style-type: none"><li>1. Training programs may be organized to improve the placement opportunities</li><li>2. Industrial visits should be organized to sensitize students the practical challenges in industry or organization.</li><li>3. Focus more on practical aspects. Final year final semester should contain only project work.</li></ol>
4	Parents	<ol style="list-style-type: none"><li>1. Make the teaching more practical based and interesting.</li><li>2. Focus more on research-based teaching.</li><li>3. Practical Knowledge to be imparted which will help them to face real life situations.</li></ol>
5	Employer	<ol style="list-style-type: none"><li>1. Students need to be aware of industry exposure</li><li>2. More emphasis should be on the applications of the opted field of study. Focus more on inter-disciplinary activities of many courses.</li><li>3. Programme should be designed in such a way that it should help in bridging the gap between industry and academic institution.</li><li>4. Entrepreneurship development programmes may be conducted.</li></ol>

  
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Gudlavalleru Engineering College,  
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(Dr. P. Kodanda Rama Rao)  
B.O.S. Chairman  
Head of Civil Engineering  
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**GUDLAVALLERU ENGINEERING COLLEGE**  
(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)  
Seshadri Rao Knowledge Village, Gudlavalleru  
Department of Civil-Engineering  
(R17 REGULATION)

**ACTION REPORT TAKEN BASED ON STAKE HOLDERS FEEDBACK**

Collected for the Academic Year 2019-20

1. Functional English theory and laboratory courses were introduced to enhance the presentation and communication skills of students.
2. Based on the inputs received from various experts and identified stakeholders the basic and applied engineering subjects related like structures and transportation are introduced as regular subjects in 2<sup>nd</sup> and 3<sup>rd</sup> year and the advanced subjects are introduced as elective subjects from 2<sup>nd</sup> year.
3. As per the inputs from the stakeholders, importance for surveying and internship was given by allowing students to interact with industries and do their internship. Survey camp was give more importance by allocating sufficient time to get the practical knowledge.
4. QGIS open source software was introduced with experiments on Transportation, Surveying, Geotechnical and Water Resources Engineering areas.
5. Applied Mechanics laboratory was introduced in 1<sup>st</sup> year to have practical knowledge in mechanics.
6. Building Trade practice was introduced in 1<sup>st</sup> year to have knowledge on carpentry, house wiring and plumbing activities.
7. Final year project was either with industry or research centres in the department to have R&D exposure for the students.
8. New course Project management and finance was introduced in 4<sup>th</sup> year to make students aware on management and finance activities in the industry.
9. Advance and industry oriented subjects like GIS&GPS, Basics of power plant engineering, smart buildings and automation, BIM, Interior design was introduced to make students aware on latest trends and technologies in the branches of Civil engineering.
10. Interdisciplinary courses, Geo-informatics was rehashed from basics of remote sensing and Disaster management was introduced for other than CE .



11. Disaster preparedness and planning was introduced in 3<sup>rd</sup> year by introducing new syllabus regarding Disaster activities.
12. New electives such as Logistics Infrastructure engineering, pre engineered buildings, urban transportation planning Geosynthetics was introduced in 3<sup>rd</sup> and 4<sup>th</sup> year.



**Dr.P.Kodanda Rama Rao**

**BoS Chairman**  
**Head of CIVIL Engineering**  
**Gudlavalleru Engineering College**  
**Gudlavalleru 521 356.**



**Dr.P.Ravindra Babu**

**Principal**  
**PRINCIPAL**  
**Gudlavalleru Engineering College,**  
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# **GUDLAVALLERU ENGINEERING COLLEGE**

(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)  
SESHADRI RAO KNOWLEDGE VILLAGE::GUDLAVALLERU

## **DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING**

### **Consolidation of Inputs from Stake Holders** **for Designing R17 Curriculum**

19-07-2019

Collected for the Academic Year 2019-20

#### **Inputs from Students**

1. L.Anudeep (15481A0281) suggested that Nano-Electronics can be introduced as an elective subject.
2. M.Sai Nandhitha (15481A02A2) suggested that Solar and Wind Energy Systems, and Python Programming subjects may be included as electives.
3. D.Sumanth (14481A0229) suggested that Probability and Statistics, and Python Programming subjects may be included as electives.
4. V.Charan Sai (14481A02D8) suggested that MPMC subject and MPMC Lab can be combined into a single integrated/project based course.
5. R.Gopala Krishna (16481A0290) suggested that Python Programming subject and Project based courses can be incorporated.
6. V.Yaswanth (16485A02B5) suggested that Python Programming subject and integrated courses can be incorporated.
7. R.Sai Kalyan (16481A0294) suggested that Electrical and Hybrid Vehicles subject can be included.
8. R.Sai Tarun (16481A0295) suggested that integrated courses can be included.

#### **Inputs from Parents**

1. Vadlamudi Rajasekhar F/O. V.Yaswanth (16481A02B5) suggested that more subjects on subjects related to software industry can be included as open electives.
2. P.Srinivas Rao F/O. P.Gopala Krishna (16481A0290) suggested that provision may be given to bright students to learn more subjects in addition to subjects offered commonly/regularly to all students.
3. B.Pujya Lakshmi M/O. B.Sree Harsha Vardhan (15481A0221) suggested that more subjects have to be offered as electives.
4. B.Schagiri Rao F/O. B.Kagendra Srinivas (15481A0218) suggested that internships should be offered in IV B.Tech I semester instead of IV B.Tech II semester.

### **Inputs from Alumni**

1. Dr.T.Narsa Reddy (1998-2002 batch) suggested that EMF subject can be included before EM-I subject and open elective Latex basics can be included.
2. R.S.P.K.Surya Teja (2012-2016 batch) suggested that replace MEFA subject with Numerical Methods to aid Power System Analysis subject.
3. S.Anusha (2012-2016 batch) suggested that add PIC controllers, different controllers used for industrial purpose in the subject MPMC.
4. G.Rahul Naik (2010-2014 batch) suggested that Fuzzy Mathematics and Project based courses may be introduced.
5. S.Faheem (2010-2014 batch) suggested that Probability and Statistics, and integrated courses may be introduced.
6. A.Apsarunissa (2013-2017 batch) suggested that Nano Electronics subject can be introduced.

### **Inputs from Faculty**

1. A.Amarendra, Associate Professor has suggested to plan for 3 mid exams, one for every two units, best of the two exams for finalizing internal marks , some space should be given for extra-curricular activities and extra credit courses may be offered to meritorious students.
2. D.Srinivasa Rao, Associate Profesor has suggested that Electromagnetic Fields subject has to be shifted from II B.Tech I Semester to II B.Tech II Semester.
3. Md.Rafikhan, Associate Professor has suggested to introduce assignments with an average weightage of marks, only two mid exams in a semester, and instruction days may be only five instead six in a week.
4. K.Vindhya Smitha, Associate Professor has suggested to introduce Life Sciences course, 5 theory courses + 3 practical courses per semester and integrated lab for Electrical circuits and Control System courses.
5. B.Dasu, Associate professor has suggested to introduce MOOC courses, Biology/Industry and Society subject, NSS/Yoga, a separate course on GATE/GRE at IV year level, two theory subjects along with project at IV-II level.
6. G.Balaji, Assistant Professor has suggested that instead of class tests, assignment for each unit with weightage of marks(internal).
7. K.Santosh Kumar, Assistant Professor has suggested to introduce assignments with weightage of marks, only two class tests and two mid exams in a semester, and instruction days may be only five instead six in a week for third and fourth year students.

## Inputs from Academicians

### 1. **Suggestions made by Prof. V.T.Somasekhar, Professor, NIT Warangal**

#### **On 25/3/2017 (1<sup>st</sup> BoS Meeting):**

- Change the name of Elements of Electrical Engineering as Elements of Electrical Circuits.
- Offer Environmental studies in II-I semester instead of III-I semester and Engineering Economics & Accountancy at III-II semester instead of II-I semester.
- Offer Control systems in III-I semester instead of II-II semester and Control systems lab in III-II semester instead of III-I semester.
- Change the synchronous machines subject title as synchronous machines & special machines
- Offer EMI in II-II semester instead of III-II semester and EMI lab in III-I semester instead of III-II semester.

#### **On 19-05-2018 (2<sup>nd</sup> BoS Meeting):**

- II-I courses should be preparatory courses for rest of the B.Tech course. Electromagnetic fields should be in II-I.
- Suggested to shift the subject Numerical methods and computer applications from II-I to II-II.
- Suggested to shift the subject Electromagnetic fields from II-II to II-I.
- Suggested to change the name of the subject Electronic switching systems. And also said, this subject is very tough for the students at 2<sup>nd</sup> year level.
- In professional elective – VI, Special electrical machines is suggested in place of Flexible AC transmission systems and HVDC transmission.
- Suggested to swap the subjects Modelling and Simulation of Engineering Systems in Open elective -1 and Electrical Materials in open elective – 2.
- In Professional Elective – V, Advanced control systems is suggested instead of Electrical Machine design and Special electrical machines.
- Suggested to swap the subjects Electromagnetic fields and Electrical measurements and Instrumentation.
- Suggested to change the syllabus of EMF. Unit - 1 should cover Review of Electrostatics and Magneto statics, Unit -2 should cover inductance and capacitance calculations, Magnetic circuits, Unit 3 should cover energy related concepts.
- PSOC, SGP and Power semiconductor drives subjects should not be electives.
- Syllabus of Electrical and Hybrid vehicles needs to be changed. Unit-3 is a repetition of unit-2. Unit-4 should be energy storage related to hybrid vehicles.



2. **Suggestions made by Prof.D.Das, Professor, IIT Kharagpur**

**On 25/6/2016:**

In I B.Tech II Semester,

- Remove Basic Electrical Lab
- Include Engineering Mechanics subject

**On 25/3/2017 (1<sup>st</sup> BoS Meeting):**

- Add one tutorial class for the following subjects
  1. Electronic Devices and Circuits [ (2+1) instead of (3+0)]
  2. Pulse and Integrated Circuits [ (2+1) instead of (3+0)]
- Offer DBMS as an elective subject instead of optional subject.
- Cyber security shall be offered as optional subject instead of elective and UEE subject shall be replaced with cyber security.

**On 19-05-2018 (2<sup>nd</sup> BoS Meeting):**

- Now a day's DC machines are not teaching in IITs. If possible remove DC machines.
- Suggested to change the name of Real time control of power systems.
- Suggested to introduce the Solar & Wind energy systems / integration of renewable energy systems.
- Suggested to introduce integration of renewable energy systems in place of real time control of power systems.
- Suggested to remove the subject Power System Dynamics.
- Suggested to perform the Control systems lab experiments using Simulation.
- If possible put only project work in IV-II and push the two courses to other semesters.
- Change the name of Modern optimization techniques to soft computing techniques.
- Python programming is not required.

3. **Suggestions made by Dr. Jayanta Pal, Professor, IIT Bhubaneswar**

**On 25/6/2016:**

- In I B.Tech II Semester,
  1. Remove Basic Electrical Lab
  2. Include Engineering Mechanics subject
- Electromagnetic Fields and Digital Signal Processing subjects are to be regular courses not electives.

4. **Suggestions made by Prof.D.V.S.S.Sarma, Professor, NIT Warangal**

**On 25/6/2016:**

- In I B.Tech II Semester,
  1. Remove Basic Electrical Lab
  2. Include Engineering Mechanics subject
- Lab Component has to be integrated with theory.
- Hydraulic machines theory and lab has to be removed from Elective-I.
- MOOC Courses may be introduced.
- Industrial training/Internship.

**Inputs from Industry Experts**

1. B.Raju, ADE, KTPS suggested that orientation should be given on electrical materials in Engineering Physics and Chemistry labs.
2. Kasi Viswanadha Raju suggested that to introduce concepts on Communications for Electrical Engineers and Energy efficiency – Equipment/Auditing. He also suggested some modifications after referring the course contents of various subjects.

  
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Head of the Department



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SESHADRI RAO KNOWLEDGE VILLAGE::GUDLAVALLERU

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### Consolidation of inputs from Stake holders

#### Suggestions from experts in the meeting held on 25/6/2016:

##### Inputs from Academic Experts:

- Prerequisites should be clearly defined in all the courses in choice based credit system.
- Incorporate prerequisites of EMF course in Mathematics courses.
- Course name should be given according to course content.
- Include the digital signal processing subject.

#### Suggestions from experts in the meeting held on 04/08/2016:

##### Inputs from Industry Experts:

- Prepare the syllabus of engineering physics to suit for electrical engineering.
- Incorporate different dielectric material testing experiments in Physics Lab.

##### Inputs from Alumni Experts:

- EMF subject should be offered before Electrical machine – I.
- Offer the subjects Electrical Safety Management, Cyber security, power system communications.

##### Inputs from Faculty:

- Introduce LATEX subject in open electives.
- Offer the subject internet of things.

#### Suggestions from experts in the meeting held on 25/03/2017:

##### Inputs from Academic Experts:

- Change the name of Elements of Electrical Engineering to Elements of Electrical Circuits.
- Offer the courses Environmental studies and Engineering Economics courses.
- Add tutorial classes to pulse and integrated circuits.

#### Suggestions from experts in the meeting held on 19/05/2018:

##### Inputs from Industry Experts:

- Introduce the subject Probability and Fuzzy Mathematics.
- Add one unit related to digital meters in Electrical measurements and instrumentation subject.

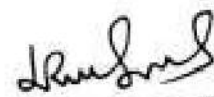
##### Inputs from Academic Experts:

- Special electrical machines is suggested in place of FACTS and HVDC.
- Suggested to remove the Power system dynamics.



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# **Gudlalleru Engineering College**

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Seshadri Rao Knowledge Village, GUDLAVALLERU

*Department of Mechanical Engineering*

25-07-2019

## **Suggestions given by students for curriculum design (R17) Regulations :**

Collected for the Academic Year : 2019-20

- include some courses which are taught by industry persons
- more no of subjects with computer programming skills
- more training on mechanical software packages
- more workshops and hands on training programs
- make more no of computer aided labs
- increase the number of electives and also interdepartmental electives
- Conduct more workshops and training programs
- Few subjects with theory and lab together
- As students are more interested to prepare models, fabrication or design course can be included
- make internship in industry as compulsory for all students
- include industry visits in every semester and give credits for industry visit report and presentation
- introduce mat lab as compulsory course
- make industry internship for minimum 3 months
- increase the number of other department electives
- increase more number of laboratories and reduce the theory courses
- Innovation model course

- Machine drawing course made it as computer aided
- Two modeling labs in subsequent semesters with training on same modeling package
- include more electives with latest technologies
- include compulsory seminar for each student
- make finite element methods as compulsory subject
- make mechanical vibrations as compulsory subject
- replace few topics in syllabus with latest technology topics

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Seshadri Rao Knowledge Village, GUDLAVALLERU

*Department of Mechanical Engineering*

## **Suggestions given by Alumni for curriculum design (R17) Regulations :**

- include Electives on latest technologies
- Few courses related to updated technology
- Design some courses and syllabus purely based on industry so that industry people may come and teach that course
- Give More emphasis on programming skills
- Give Training on modeling and analysis packages
- More computer aided labs
- Increase the computer labs
- Instead of conventional drawing , keep all drawings with computer aided
- More number of electives so that student can choose the correct area
- All electives should be such that there should be sequence of courses for a single stream
- Less number of internal examinations
- Conduct more workshops and training programs
- Model GATE tests
- Few Design based subjects
- As students are more interested to prepare models, fabrication or design course can be included
- Compulsory internship in industry
- Mandatory Non credit course having one week industry visit



- Introduction of MAT Lab programming in first year
- Compulsory certification course
- More numbers of interdisciplinary electives
- Design or fabrication model course or mini project
- Innovation model course
- Machine drawing course made it as computer aided
- Two modeling labs in subsequent semesters with training on same modeling package
- Advanced machining courses
- Course related to research methodology so that interest towards research can be created
- Compulsory seminar
- Course on finite element methods , vibrations , computational fluid dynamics can be made compulsory
- Few courses with theory cum industrial visit
- Delete old topics and replace with latest topics

# **Gudlalleru Engineering College**

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Seshadri Rao Knowledge Village, GUDLAVALLERU

*Department of Mechanical Engineering*

## **Suggestions given by Parents for curriculum design (R17) Regulations :**

- Give More emphasis on computer programming skills
- Give Training on mechanical related computer packages
- increase the no of computer labs and also regular labs
- Instead of conventional drawing , keep all drawings with computer aided
- reduce the number of internal examinations
- Conduct more workshops and training programs
- Model GATE tests and give training to competitive examinations
- make Compulsory internship in industry
- Design or fabrication model course or mini project
- Advanced courses
- Few courses with theory cum industrial visit
- Delete old topics and replace with latest topics

## Minutes of Meeting

After having thorough discussion on curriculum design , the following points are taken into consideration .

- Introduction of course Engineer and Society
- To introduce more no of computer aided laboratories . Engineering Graphics – II and Machine Drawing are to be made computer aided
- Introduction of skill development labs for students
- More number of inter departmental subjects can be offered in the form of electives .
- Electives on latest technology related courses can be introduced in the curriculum
- The maximum no of courses in a semester should not exceed 6. In some semesters , it is better to limit to 5 theory courses . In IV- I , it is better to have only 5 theory courses and in IV- II , only two theory courses. The number of labs in a semester are to be 2 /3 . If 6 theory courses are offered , two lab courses should be offered in that semester.

Based on the discussions held in the workshop , it is decided to offer the following tentative courses in each semester and the same may be proposed to Board of studies meeting

### **I Year – I Semester**

S.No.	Course Code	Course Title		Total No. of Credits
1		Functional English	HSS	3
2		Linear Algebra and Differential Equations	BS	3
3		Engineering Physics	BS	3
4		Engineer & Society	HSS	2
5		Programming with 'C'	ES	3
6		Engineering Graphics	ES	3
7		English Language Lab	HSS	1
8		Engineering Workshop	ES	1
9		Engineering Physics Lab	BS	1
<b>Total:</b>				<b>20</b>



### Minutes of Internal BOS meeting for B.Tech Curriculum :

- It is decided to reduce the total no of credits to 160 from 170 without changing the first year courses and first year total credits. Accordingly the course structure finalized in earlier Board of studies meeting is restructured
- The number of Professional Electives is increased to 6 and optional electives to 8 with four optional electives as MOOCs
- Numerical and Statistical methods to be shifted to III yr I sem
- Title of Metallurgy is to be changed to Engineering Metallurgy
- It is finalized to have 5 subjects in II year I sem
- Engineering Economics and Accountancy course is to be shifted to III yr II sem
- I.C Engines and Gas Turbines title to be changed to Applied Thermodynamics
- Computer aided Machine Drawing is shifted to III yr I Sem
- Fluid Machinery and Steam Power generation is clubbed as single course Turbo machinery
- Numerical & Statistical Methods is included in III yr I Sem
- Metal Cutting and Machine Tools and the corresponding lab are shifted to III Yr I Sem from III Yr II Sem
- Design of Power Transmission and Design of Machine Elements are renamed as Design of Machine Members and Design of Transmission Elements and the syllabus is to be revised accordingly . Design of Machine Members is included in III yr II Sem and Design of Transmission Elements is offered as Professional Elective in IV yr I Sem
- Skill Development Program II is shifted to III yr II Sem
- Mini Project is shifted to IV yr I Sem
- Industrial Engineering & Management is shifted to IV yr I sem
- Metrology and Instrumentation Lab is moved to III Yr II sem
- Refrigeration and Air Conditioning is to be offered as core elective
- Internship / Practical Training is to be offered in IV yr I Sem
- The no of credits of project course are reduced to 10 credits.

With the above modifications the following course structure is finalized in this meeting and the same will be presented in the next Board of Studies meeting for modifications and approval.

#### Curricular Components

Sl. No.	Course Work-Subject Area	Total no. of credits	Suggested credits
1	Basic Sciences (BS)	21	25
2	Humanities and Social Sciences (HSS)	16	12
3	Engineering Sciences (ES)	27	24
4	Professional Core (PC)	52	48
5	Professional Electives (PE)	18	18
6	Open Electives (OE) & Self Study Course	12	18
7	Other (Project, Internship, etc.)	14	15
8	Mandatory Non-Credit Courses		
	Total	160	160



### Minutes of Board of Studied Meeting held on 12-05-2018

- The proposal to reduce the total no of credits to 160 from 170 according to the guided lines given by AICTE is accepted without changing the first year courses and first year total credits
- It is decided to have the number of Professional Electives is increased to 6 and optional electives to 8 with four optional electives as MOOCs.
- Skill Development Program I is offered in Geometric Modeling and Skill development Program II is Engineering Analysis.
- Fluid Machinery and Steam Power generation are combined as single course Turbo machinery. Design of Power Transmission and Design of Machine Elements are renamed as Design of Machine Members and Design of Transmission Elements and the syllabus is to be revised accordingly . Design of Machine Members is included in III yr II Sem and Design of Transmission Elements is offered as Professional Elective in IV yr I Sem
- Refrigeration and Air Conditioning is to be offered as core elective.
- Internship / Practical Training is to be offered in IV yr I Sem.
- The no of credits of project course are reduced to 10 credits.
- The chairman of the board of studies had also presented course outcomes attainment values for the courses completed in A.Y. 2017-18. The members have gone through the attainment values for all the courses and suggested to take remedial measures for non attained courses
- The chairman of the board of studies had presented to the members the program outcomes and program specific outcomes attainment and target values for 2014-18 batch students. It is observed that PO4 and PSO 2 are not attained
  - With regard to PO 4 ,the chairman informed that the attainment value reached 94.66% of the target value and the members have suggested to take corrective actions so that the outcome is achieved for the next batch .

➤ With regard to PSO 2 ,the chairman informed that the attainment value reached 96% of the target value and the members have suggested to take corrective actions so that the outcome is achieved for the next batch .

- The courses and the corresponding main topics are finalized.



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Head of Mechanical Engineering  
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GUDLAVALLERU - 521 356

## **GUDLAVALLERU ENGINEERING COLLEGE**

(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)  
SeshadriRao Knowledge Village, Gudlavalleru – 521356, Krishna District (A.P.)


**Department of Electronics and Communication Engineering**

### **Action taken Report on feedback**

16-07-2019

Collected for the academic year-2019-20

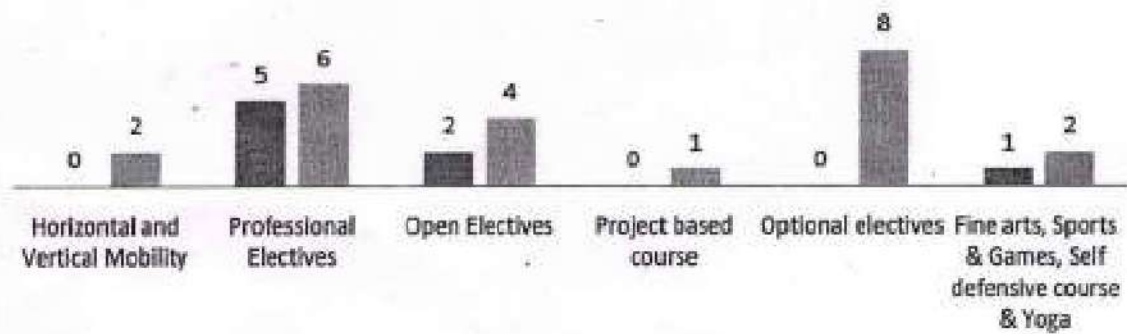
- Provision for horizontal and vertical mobility under CBCS.
- Number of Professional electives are increased from five to six.(POs mapped: 1,2,3,4,5,6,7,8,11,12 PSOs mapped : 1,2)
- Number of Open electives is increased from two to four.(POs mapped: 1,2,3,4,5,6,7,8,9,10,11,12 PSOs mapped : 1,2)
- Minor streams are proposed in professional electives..(POs mapped: 1,2,3,4,5,6,7,8,11,12 PSOs mapped : 1,2)
- Fine arts, Sports & Games, Self defensive course & Yoga are proposed as mandatory non- credit courses. .(POs mapped: 6,7,9)
- Project based theory course is introduced..(POs mapped: 1,2,3,4,5,7,12 PSOs mapped : 1,2)
- Open-ended experiments are included in the lab courses.
- Industry-oriented training program/ Internship is included..(POs mapped: 1,2,3,4,5,6,7,8,9,10,11,12 PSOs mapped : 1,2)
- Optional Electives as self-study courses and some of them MOOCs are proposed for meritorious students to encourage them register for B.TechHonours degree..(POs mapped: 1,2,3,4,6,7,11,12 PSOs mapped : 1,2)

  
Chairman/BOS  
ECE

  
Principal  
Gudlavalleru Engineering College

## Improvements in Curriculum for Mapping POs and PSOs

■ R14 Regulation ■ R17 Regulation



  
Chairman BOS  
ECE

  
Principal  
Gudlavalleru Engineering College



# **GUDLAVALLERU ENGINEERING COLLEGE**

(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)  
Seshadri Rao Knowledge Village, Gudlavalluru

## **Department of Computer Science and Engineering**

17-07-2019

### **Feedback on Curriculum by Faculty**

- Introduce courses on ABCD's (AI, Big Data, Cloud and Deep Learning).
- Introduce Node and Angular JS, C#. NET which helps in the students to take initiation of developing apps and websites.
- More focus should be given to R&D activities and projects.
- More subjects related to Cyber Security need to be introduced as there is a raising concern about the short fall in qualified graduates.
- Improve the programming skills of a student. Make every student to possess creativity and problem solving skills.

### **Feedback on Curriculum by Students**

- Presentation and communication skills of students have to be enhanced.
- Introduce Machine Learning, big data and Internet of Things courses as they were current trends in the industry.
- Demonstrate the Data Mining concepts using Mining tools which help to understand the concepts in a better way.
- Subjects like Distributed databases, semantic web can be introduced.
- Introduce R programming subject which may help for Data analysis.
- Add more technical programs in the lab syllabus along with type of case-study, to gain more knowledge and perform well in then in interviews.

### **Feedback on Curriculum by Employer**

- Machine learning and Artificial Intelligence subjects should be as core and with practical knowledge.
- Practical knowledge on cloud computing and programming knowledge on 'R' is required.
- Inculcate critical thinking and analytical skills, strong fundamentals on data structures and algorithms.
- Include the concept of cloud privacy in cloud computing subject.
- Digital security is biggest concern in IT industry. So need aware of topics like- Signature schemes, secure multiparty computations, Game theory and applications using Block Chain technology.

### **Feedback on Curriculum by Academia**

- Aware the students about Optimization techniques and their constraints.
- Include more topics related to data visualization in data mining Lab.
- Need practical knowledge on NoSQL databases which being used by major sites such as facebook.
- Introduce Microprocessor and Microcontrollers as an elective course.
- Advanced Networking concepts and algorithms needs to be introduced.

### **Feedback on Curriculum by Alumni**

- Introduce some lab course to design and develop apps's which helps to deliver seamless and effortless user experiences with a polished look.
- Problem solving and computer programming lab need to be strengthened to enhance the programming skills of the students which improves employability skills in them
- Introduce the concepts to create a system in which the user cannot tell the difference between the real world and the virtual augmentation of it.
- Incorporate some concepts and tools to demonstrate the Soft Computing Techniques.

### **Feedback on Curriculum by Industry Expert**

- Students should possess basics of security, vulnerabilities and Cryptography using practical tools.
- Introduce Blockchain Technologies.
- Include more advanced concepts in python that help in data science for data analysis.
- In your IOT syllabus introduce some concepts of "REST" Programming language, an alternative to C language for memory safe programming in IOT devices.
- Introduce a course that focuses more on producing working **software** and less on documentation.

### **Feedback on Curriculum by Parents**


- Provide more awareness and exposure to industry working environment.
- Soft skills programs should be organized.
- Enrich the curriculum by introducing latest trending languages and updated topics.
- Make the student to follow ethics and moral values.
- Introduce a subject to teach principles of happy living and helping to others.
- Improve the analytical skills.
- Make the students to do at least one small project per semester by considering case studies in lab experiments.
- Motivate and inculcate the entrepreneurship qualities in students.
- Arrange extra practice session for difficult subjects.
- Provide career guidance and expert talk by Industries.



## ACTION TAKEN REPORT BASED ON STAKE HOLDERS FEEDBACK

Collected for the Academic Year 2019-20

- **Professional Communication theory and Lab** courses were introduced as additional course to functional English to enhance the presentation and communication skills of students.
- Based on the feedback of the students related to the introduction of new courses, courses like **Machine Learning, Big Data** were introduced as electives and **Design Patterns** was introduced as core course.
- **Data Mining lab** was included to make students practice on the related concepts.
- **Distributed Database Systems and semantic web** courses were introduced as elective courses.
- Python is often used as a support language for software developers, for build control and management, testing, and in many other ways so introduced **Python Programming** as an integrated course.
- A developer should learn a UNIX system because Unix-based systems have become the most pervasive for consumer computing so introduced **UNIX Programming Lab** as it's also at the heart of online services - consumers likely visit more web sites served by boxes running a Unixy OS than any other OS.
- **Node. JS** is a useful tool to build fast and scalable server-side networking applications while **AngularJS** is best suited for building single-page client-side web applications that's why introduced **Node and Angular JS**, and their supporting languages like **C#. NET and Scripting Languages**.
- Introduced the trending subjects identified like **Machine Learning, Data Science, Data Analytics, Statistics with R Programming, Soft Computing, Business Intelligence and Deep Learning**
- To get more exposure and secure our working environment and to deal with networking issues and digital security introduced subjects like **Web Services, Wireless networks, Cyber security, Block chain technologies and Information security lab**.
- To provide more job opportunities in app development introduced **Mobile Application Development lab**.
- Introduced **Internet of Things** to have knowledge on automation.
- To get exposure to industry working environment and simplify it introduced **Agile Software Development Process**.

  
(Dr. S. NARAYANA)  
BoS Chairman

**Dr. S. NARAYANA**  
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### GUDLAVALLERU ENGINEERING COLLEGE

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Department of Information Technology

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**The need assessment is carried out and feedback from stakeholders is taken before designing the curriculum.**

S.No	Stakeholders	Major Feedback/ Comments by Stakeholders
1	Students	<ol style="list-style-type: none"><li>1. Need more practical exposure</li><li>2. Need Industry led courses</li><li>3. The programme should develop independent thinking</li></ol>
2	Parents	<ol style="list-style-type: none"><li>1. Programme should help the students get jobs and get admission for higher studies.</li><li>2. Extra-curricular activities need to be provided for all round development of student.</li></ol>
3	Alumni	<ol style="list-style-type: none"><li>1. Include less courses in Final semester.</li><li>2. Final year semester should contain only project work.</li><li>3. Industry visits should be organized.</li><li>4. Self-Learning should be encouraged.</li><li>5. Give flexibility of doing 4-2 subjects before 4-2 Semester, so that students have more time to concentrate on project.</li></ol>
4	Industry	<ol style="list-style-type: none"><li>1. More electives should be available for the students to choose from, other than the core courses.</li><li>2. Minor specialization electives need to be introduced as they create a pathway for students' career.</li><li>3. Introduce some courses leading to current Research and Development areas.</li><li>4. Allocate entire semester for project, so that the quality of projects will be improved.</li><li>5. The programme should be designed in such a way that it develops analytical, problem solving, communication skills, team-working abilities.</li></ol>
5	Academia	<ol style="list-style-type: none"><li>1. Add courses to improve/enhance practical knowledge/experience so that the students are in par with industry standards</li><li>2. MOOCs/ Certification courses can be introduced</li><li>3. Implement flexible credit based system</li><li>4. Industry oriented courses like python, AI, security, block chain technologies, IoT are to be introduced.</li><li>5. Refer Guidelines of UGC/ AICTE and Curriculums of other premier institutes while framing course structure and syllabi.</li></ol>

  
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## DEPARTMENT OF INFORMATION TECHNOLOGY

### Action taken report based on stake holders feedback:

- Introduced Big data analytics lab course newly as per the request of students.
- Based on the suggestion given by industry experts introduced VI electives and IV open electives.
- As per the suggestion given by industry Research oriented courses such as Artificial Intelligence, Machine Learning, Block chain Technologies were introduced.
- As per the recommendation of academicians MOOCs were included as part of the curriculum.
- Based on the alumni members suggestion Vertical mobility concept was adopted.
- Some parents are suggested to add placement related courses. So, Employability skill course was introduced in II Year level to strengthen skill set of the students.
- Introduced Internet of Things according to Academicians suggestion.
- Python is often used as multi versatile language. So, introduced Python Programming as an integrated theory and Laboratory course in I year level. Student can implement and practice more in sub sequent years.
- A software developer required UNIX operating system management. So, introduced Unix & Shell Programming as integrated theory and laboratory course in II Year level.
- Introduced Agile Software Development Process to get industry environment exposure.
- Open electives courses were increased to gain knowledge in multi disciplinary areas.

HOD,IT

HEAD OF DEPARTMENT  
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**Department of Business and Management Studies**

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23-07-2019

**Suggestions given by Alumni for curriculum design (R17) Regulations: Academic Year 2019-20**

- Include electives on contemporary issues like retailing, supply chain etc.
- Introducing technology-based certification courses as a part of the course would be helpful.
- Industrial exposure must be very much needed.
- Designing a business model should be made it compulsory for every student.
- Industrial and international connection need to be increased.
- Student project works should be get published by reputed journals.
- Internal assessment of the students should be done on oral presentation rather than written examination.
- Encouraging students to work in teams to gather primary data from the market is very much needed to develop team building among students.
- More number of SDP's should be organized and train the students to participate outside the college.
- Including entrepreneurial activities as a part of the course would be helpful.
- Minimum of two industrial visits per a year to be organized.
- Need entrepreneurship incubation center specifically for MBA.
- Organize number of events/personality development programs by inviting young successful entrepreneurs outside the college.
- Incorporating contemporary topics or courses as and when needed is very much useful.

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## **Department of Business and Management Studies**

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### **Suggestions given by students for curriculum design (R17) Regulations:**

- Need to incorporate new courses/live session on contemporary issues.
- Include Research oriented Lab facility in the second semester.
- More number of training programs on personality development of students need to be included in the course.
- More number of workshops to be organized on emerging trends in the concerned electives.
- Offering number of electives other than existing three electives would be helpful.
- Need practical sessions for stock broking.
- Incorporating mini projects after first year of MBA program would be helpful for the students to have hands on experience.
- Need special classes for analyzing case studies than in theory classes.
- Make industrial internships compulsory for all the students as a part of the program.
- Include industry visits as a part of the course and credits should be allotted for the report submission and presentation.
- The duration of internship or mini project at least for 60days.
- Incorporating a great number of courses from basic sciences and humanities would also be helpful.
- Conducting a number of business quiz would be helpful.
- Presentation of business models need to be incorporated and presented by every student once in a year.



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**Department of Business and Management Studies**

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## **Suggestions given by Parents for curriculum design (R17) Regulations:**

- Give more emphasis for IT Lab.
- Industrial exposure must be increased.
- Personality development classes should be taught by Management consultants at least once in a month.
- Pre placement training is very much needed.
- Conduct classes to improve written as well as oral communication.
- Much focus should be given to develop the student's personality.
- Training on setting up a business should be given.
- Students should get placement on the campus itself.
- Advanced courses should be introduced.
- Increase the industrial connect with the students.
- Incorporating internships in the curriculum would be helpful for the student development.

Contd..2..



After thorough discussion on curriculum design at department level, the following resolutions are proposed for subsequent Board of Studies Meeting.

- It is decided to interchange the following Courses:

R14	Semester	R17	Semester
International Financial Management	IV	International Financial Management	III
Financial institutions and services	III	Financial institutions and services	IV

- The following new courses are proposed to R17 curriculum:

S.No.	Title of the Course	Semester
1	Sales and Distribution Management	IV
2	Training and Development	III
3	Compensation Management	IV

- It is resolved to change the title of the course "Business Communication & Skill Development" to "Business Communication".
- It is proposed to discontinue the following courses from R14 curriculum:
  - Knowledge Management
  - International Marketing
  - Global Human Resources Management
  - Performance Management

**HEAD OF THE DEPARTMENT**

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