



VIGNANI INSTITUTE OF TECHNOLOGY AND SCIENCE

Near Ramoji Film City, Deshmukhi (V), Yadadri Bhuvanagiri Dist, Telangana - 508 284.

Approved by AICTE, New Delhi, Affiliated to JNTUH, Hyderabad

EAMCET CODE : VGNT



Date: 15/05/2019

To,

The Dean Academic Planning,

JNTUH, Hyderabad

SUB: Curriculum gaps identified and suggested to implement for next AY (2019-20). Regarding....

Dear Sir/Madam,

As an affiliated institution to JNTUH, the programmes are bound to follow the curriculum set by the university. Different Department Development Committees of our college had discussed on the curriculum, considering the stake holders feedback, and recommend the Board of Studies (BOS) committee constituted by the JNTUH, Hyderabad to consider the following changes in the upcoming curriculum. We have identified the curricular gaps and have taken measures to bridge it by supplementing the curriculum with content beyond syllabus.

The table lists the identified gap in the syllabus for the attainment of Program Outcomes and Program Specific Outcomes:

S.N	Branch	Identified Curricular Gaps	Subject & Subject code (if any)	Year & Semester	Remarks
1	ECE	Design of Memories	Switching Theory & Logic Design	II Year - I sem	This topic if introduced will give an idea for the students to understand the practical application of the logic gates and combinational & sequential circuits that they have studied.
2	ECE	Internet of Things Lab	Request for New Subject to be introduced	For III year	New lab not specified in curriculum. Internet of Things in short IoT is a trending technological field that converts any electronic device into a smarter one. A lot of industries are beginning to adopt this technology on to their operations to increase their productivity and improve efficiency. So the students can be exposed to those areas before they step into the real



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					world
3	ECE	Research Methodology and Technical Paper Writing	Request for New Subject to be introduced	For IV year	Will be useful if introduced in IV year - I sem as part of Project work. This course can benefit the students in 1) Understanding the research process. 2) Understanding how scientists work on problems. 3) Learning lab techniques. 4) Developing skills in the interpretation of results, 5) the ability to analyze data, 6) The ability to integrate theory and practice, 7) Learning to work independently 8) Self confidence 9) Clarification of a career path and 10) summarizing all the above data as a technical paper for publication.
4	ECE	Skill Development & Entrepreneurship	Request for New Subject to be introduced	For IV year	'0' Credit course as part of IV year -I sem curriculum. Reasons to inculcate entrepreneurship thinking skills in students are: 1) Entrepreneurship skills form the basics like reading and writing, when it comes to succeeding in the complex world. 2) Entrepreneurship thinking skills enhances the value of knowledge obtained from STEAM disciplines. It brings out solutions to complex problems by integrating the knowledge gained in the STEAM disciplines. It transforms knowledge into value. 3) Entrepreneurship thinking skills is acquirable, and doing this at the earlier stage will help in mastering it. The more frequently we expose the



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					students to these skills, the more entrepreneurial they become.
5	Mechanical Engineering	Thermal Engineering I	ME502PC (Theory) And ME505 PC (Practical)	3-1	In 3-1, Thermal Engineering theory and practical's are in same semester. It is difficult to follow up for the students. Hence we are requested theory paper in one semester followed by practical in next semester.
6	Mechanical Engineering	Fluid Mechanics and Hydraulics Machines (FMHM)	ME401ES (Theory) and ME407ES (Practical)	2-2	In 2-2, FMHM and practical's are in same semester. It is difficult to follow up for the students. Hence we are requested theory paper in one semester followed by practical in next semester.
7	Mechanical Engineering	Heat Transfer		3-2	In 3-2, Heat Transfer and its practical's are in same semester. It is difficult to follow up for the students. Hence we are requested theory paper in one semester followed by practical in next semester. As heat and mass transfer are allied topics, hence it is better to include at least the introduction of mass transfer.
8	Mechanical	Thermal		3-2	In 3-2, Out of 5 subject 3



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	Engineering	Stream in 3-2 (Heat transfer, Gas turbine and IC Engine and Thermal Engineering II)			subjects are related to thermal stream. Hence, we are requesting to distribute evenly by accommodating courses of other streams like design and manufacturing.
9	Mechanical Engineering	Manufacturing Process (MP)	ME405ES	2--2	<p>Add one or two reference books to this syllabus.</p> <p>Injection molding process concepts are required to understand making of plastics related products.</p> <p>In forming Portion, basic concepts are available and we are requesting to add advanced forming process.</p>
10	Mechanical Engineering	Metallurgy and Material science	ME305ES	2-1	<p>Basic defects of crystals to be added.</p> <p>In R16, Heat treatment topic is given. But questions are received in sub topics. But it is not mentioned in details.</p> <p>High application materials are included in such as ceramic Polymers and composites. It is difficult to learn.</p>
11	Mechanical	Thermodynam	ME304ES	2-1	Gas power cycles and Vapour



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	Engineering	ics			power cycles are also part of TE I and II subjects. It is better to remove the above topics from thermodynamic subject. Also a bit of statistical thermodynamics.
12	Mechanical Engineering	ICS	ME702 PC (Theory) And ME704 PC (Practical)	4-1	Many subjects from second and third year are discussed based on various measuring instruments. But it is available in 4-1. So, we are requesting ICS theory and practical's are in early stage.
13	Mechanical Engineering	Engineering Graphics	ME106ES	1-2	In second year machine drawing practice are students are struggling to imagine penetration of two solids. Hence, we are requesting to add related topics.
14	Mechanical Engineering	Engineering Mechanics	ME105ES	1-1	Vibration and its related studies are complicated to learn in early stage. Also, it is available in dynamics of machine. There they will learn deeply.
15	EEE	Power circle diagrams	Electrical Machines-II	III Year - I sem	This topic facilitates to know performance of electrical machines/transmission lines graphically, which avoids the calculations of quantities in complex form.



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16	EEE	Nyquist plots and M & N Circles	Control Systems	II Year - II sem	These topics covers the stability analysis of the system, though the other methods are available for stability these topics facilitate the scope for comparative study and conclude the best method.
17	EEE	Power Plant Control	Power Systems-I	II Year - II sem	Automation of the system improves reliability and performance, in this regard it will be helpful to introduce this topic.
18	EEE	Electrical Safety	Switch Gear and Protection	III Year - II sem	Now a days electrical safety is becoming one of the important factors in electrical installations, in this connection it may be better to have this topic in this subject.
19	EEE	Advanced Speed Control Methods	Power semiconductor drives	III Year - II sem	In industries advanced & automatic speed control methods are adopting, in this regard it is better to include some of the advanced methods in addition to the conventional speed control methods.
20	EEE	Real Time Power System Operations	Power System operation and control	III Year - II sem	This topic in PSOC may give clear understanding of live power system network.
21	CSE	Inclusion of IoT lab as mandatory subject	Internet of Things Lac(CS754PC)	IV	As per the University Curriculum, Data Communication and Computer Networks and Web Technology courses are introduced . To bridge the gap between academics and Industry, a course on Internet of Things (IoT) with awareness for hardware sensors can be made it as a mandatory subject for IV year students.
22	CSE	Inclusion of Linux OS Lab	-	IV	Linux is the best-known and most-used open source operating system. As an



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					operating system, Linux is software that sits underneath all of the other software on a computer
23	CSE	Incorporated with Modern Architecture and Processors	Computer Organization & Architecture(CS304 PC)	II Yr & I Sem	This will be helpful for their career.

We have also incorporated the following activities to bridge the above gaps:

- 1) Workshops and FDP's for elevating the conceptual and theoretical knowledge, skill development, problem solving and up-gradation of teaching pedagogy in-line with changes in the higher education sector.
- 2) The institute has facilitated the enrollment of staff and students in NPTEL, Coursera, etc., platforms.

Hope you will welcome our suggestions and consider to make the above mentioned gaps for next academic year.

Thank you




Dr G Durga Sukumar,

Principal, VGNT

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