# VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), IBRAHIMBAGH, HYDERABAD – 31

# **DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING**

# Academic initiatives during COVID -19 pandemic period

Our country faced many challenges due to the Covid - 19 pandemic and the country was in complete lockdown. All services, except emergency services were halted so as to prevent spreading of the pandemic disease. It took few weeks for the citizens to cope with the situation and get habituated to the preventive measures.

Among the diverse sectors, education sector also got halted due to the pandemic. Head of the department asked about the well being of the staff and suggested every staff to take proper preventive measures so as to be safe and healthy. All the mentors contacted their respective students and asked about well being of the student and his / her family.

## 1. Teaching – Learning

## **1.1** Theory classes

After 3 weeks of lockdown, college and department encouraged staff members to look into alternatives for offline teaching so as to continue teaching – learning process and see that the students utilize their precious time effectively. Initially, staff tried different online teaching platforms like Google classroom and Zoom. Head of the department conducted online meeting with the entire faculty to discuss pros and cons, clear doubts on virtual learning platforms. Finally it was decided to conduct classes with Zoom platform. However, due to time limitations in Zoom platform, faculty switched to Cisco Webex at a later stage. All Class coordinators formed WhatsApp groups so as to have effective communication with students.

Online classes commenced as per the following schedule:

BE, 4 <sup>th</sup> , 6 <sup>th</sup> and 8 <sup>th</sup> semesters	: 13-04-2020 to 16-05-2020
BE 2 <sup>nd</sup> semester and ME 2 <sup>nd</sup> semester	: 13-04-2020 to 23-05-2020

The time tables for conducting online classes were as follows:

Course: BE			Semester – IV	
DAY / TIME	10:00 AM to 11:00 AM	11.40 AM to 12.40 AM	02.00 PM to 03.00 PM	03.40 PM to 04.40 PM
MONDAY	EMI	SD-II(CSE)	EM-I	EE-II
TUESDAY	OE-II	DE	NMPS	EMI
WEDNESDAY	SD-II(CSE)	EM-I	OE-II	EE-II
THURSDAY	NMPS	SD-II(CSE)	DE	OE-II
FRIDAY	EE-II	DE	SD-II(CSE)	EM-I
SATURDAY	EMI	EE-II	NMPS	EM-I

Subject	Period	Faculty Name	Mobile number of Faculty
SD-II(CSE)	4	Suresh / Basheer	
NMPS	3	N. Vasudha	9441779840
EE-II	4	Rama Krishna Reddy	8886939560
DE	3	Dr.M.Chakravarthy	9849979136
EMI	3	G. Mahesh	9848629590
EM-I	4	U. Elisha	7207401481
OE-II	3	-	

# Course: BE

Semester – VI

DAY / TIME	10:00 AM	11.40 AM	02.00 PM	03.40 PM
MONDAY	SS	SGP	MPMC	LIC
TUESDAY	OE-V	MPMC	SGP	SS
WEDNESDAY	FS-IV (SS)	LIC	SS	MPMC
THURSDAY	OE-V	SS	LIC	EFE
FRIDAY	OE-V	EFE	FS-IV (SS)	SGP
SATURDAY	MPMC	SGP	EFE	LIC

Subject	Periods	Faculty Name	Mobile number of Faculty
EFE	3	M. Jyothi	9247780569
FS-IV	2	Priyanka	
LIC	4	N. Uday Kumar	9701172500
SGP	4	Ch.V.S.S.Sailaja	8121981253
SS	4	M. Sreenivasulu	7337063538
MPMC	4	G. Sandhya	9494771587
OE-V	3		

Course: BE

#### Semester – VIII

DAY / TIME	10:00 AM	11.40 AM	02.00 PM	03.40 PM
SATURDAY	RES	EPDE	RES	EPDE

Subject	Periods /	Faculty Name	Mobile number of Faculty
EPDE	2	G. Pranava	9966744474
RES	2	M. Dhanunjaya Rao	7330981980

#### Course: ME

Semester – II

DAY / TIME	10:00 AM	11.40 AM	02.00 PM	03.40 PM
MONDAY	PECED	PEC	PLCA	DSPA
TUESDAY	DSPA	RES	PECED	PEC
WEDNESDAY	PEC	PECED	RM&IPR	RES
THURSDAY	RES	PLCA	PEC	PECED
FRIDAY	RM&IPR	DSPA	RES	PLCA
SATURDAY	SDC: SS	SDC: SS	AC 2	AC 2

Subject	Periods	Faculty Name	Mobile number of Faculty
SDC: SS	2	Naveen	
RM&IPR	2	S. Venkataiah	9985087394
PECED	4	P.Rajasekhar	9177207976
DSPA	3	Ch.V.S.S.Sailaja	8121981253
PEC	4	P. Ravi	9951533391
PLCA	3	Dr.P.M.Sarma	9705462185
RES	4	M. Dhanunjaya	7330981980
AC 2	2		

Initially, it was a challenge for the faculty as well as students to adapt to online teaching – learning process. However after few weeks, the situation improved and the learning was happening well with very few students absent due to network issue. Faculty collected feedback from students so as to improve the learning process further. Faculty included videos, PPT and animations in their teaching to enable the students understand the concepts clearly. All the faculty provided learning material to enable the students to learn easily. Faculty online meeting were conducted on regular basis so as to review the teaching process and coverage of syllabus.

All the students were encouraged to use laptop for attending classes. Few students belonging to socially disadvantaged groups faced difficulties in attending classes due to lack of laptop and the list was brought to the notice of the department. To overcome the challenge, faculty and HOD took initiative to contact Alumni for

supporting the above students financially. Department received a great response from Alumni and as a result, 25 laptops were distributed to the needy students. The Management was also very kind to provide laptops to the needy students. This enabled students to attend classes smoothly.

Online remedial classes were conducted for BE  $2^{nd}$  semester students with  $1^{st}$  semester backlogs from 01-06-2020 to 06-06-2020.

After completion of syllabus, revision classes were also conducted for all the students as per the following schedule

BE, 2 <sup>nd</sup> semester	: 08-06-2020 to 20-06-2020
BE, 4 <sup>th</sup> semester	: 08-06-2020 to 20-06-2020
BE, 6 <sup>th</sup> semester	: 15-06-2020 to 20-06-2020
BE, 8 <sup>th</sup> semester	: 08-06-2020 to 13-06-2020
ME 2 <sup>nd</sup> semester	: 15-06-2020 to 20-06-2020

Time table for revision classes is as follows:

#### Course: BE

#### Semester – IV

DAY / TIME	09:40 AM	11:00 AM	12.20 PM
MONDAY	EMI	-	EM-I
TUESDAY	OE-II	DE	NMPS
WEDNESDAY	-	EM-I	OE-II
THURSDAY	NMPS	-	DE
FRIDAY	EE-II	DE	-
SATURDAY	EMI	EE-II	NMPS

Subject	Periods / week	Faculty Name	Mobile number of Faculty
NMPS	3	N. Vasudha	9441779840
EE-II	2	Rama Krishna Reddy	8886939560
DE	3	Dr.M.Chakravarthy	9849979136
EMI	2	G. Mahesh	9848629590
EM-I	2	U. Elisha	7207401481
OE-II	2		

Course:	BE
---------	----

DAY / TIME	09:40 AM to 10:40 AM	11:00 AM to 12:00 Noon	12.20 PM to 01.20 PM
MONDAY	SS	SGP	MPMC
TUESDAY	OE-V	MPMC	SGP
WEDNESDAY	-	LIC	SS
THURSDAY	OE-V	SS	EFE
FRIDAY	OE-V	EFE	Mini Project
SATURDAY	MPMC	-	LIC

Subject	Periods / week	Faculty Name	Mobile number of Faculty
EFE	2	M. Jyothi	9247780569
LIC	2	N. Uday Kumar	9701172500
SGP	2	Dr. Ch.V.S.S.Sailaja	8121981253
SS	3	M. Sreenivasulu	7337063538
MPMC	3	G. Sandhya Rani	9494771587
OE-V	3		
MP	1	P. Ravi	9951533391

### Course: BE

### Semester – VIII

DAY / TIME	09:40 AM to 10:40 AM	11:00 AM to 12:00 Noon
MONDAY	EPDE	RES
TUESDAY	RES	EPDE
WEDNESDAY	EPDE	RES
THURSDAY	RES	EPDE
FRIDAY	RES	EPDE
SATURDAY	EPDE	RES

Subject	Periods / week	Faculty Name	Mobile number of Faculty
EPDE	6	Dr. G. Pranava	9966744474
RES	6	Dr. Ch.V.S.S.Sailaja	8121981253

Course:	ME
---------	----

Semester – II

DAY / TIME	09:40 AM to 10:40 AM	11:00 AM to 12:00 Noon	12.20 PM to 01.20 PM
MONDAY	PECED	PEC	PLCA
TUESDAY	-	RES	PECED
WEDNESDAY	PECED	DSPA	RM&IPR
THURSDAY	PLCA	RES	PEC
FRIDAY	RM&IPR	DSPA	RES
SATURDAY	-	PEC	AC 2

Subject	Periods / week	Faculty Name	Mobile number of Faculty
RM&IPR	2	S. Venkataiah	9985087394
PECED	3	P.Rajasekhar Reddy	9177207976
DSPA	2	Dr. Ch.V.S.S.Sailaja	8121981253
PEC	3	P. Ravi	9951533391
PLCA	2	Dr.P.M.Sarma	9705462185
RES	3	G. Mahesh	9848629590
AC 2	1		

# **1.2 Laboratory classes**

To impart practical knowledge, the possibility of using virtual labs was explored and the list of virtual laboratories is as follows:

S. No.	Semester	Name of the lab course	Name of the Virtual Lab Platform
1	I Sem	Basic Electrical Engineering	Amrita Vishwa Vidyapeetham
		Lab	IIT Guwahati & College of Engineering, Pune
2	III Sem	Basic Electrical Engineering	Amrita Vishwa Vidyapeetham
			IIT Guwahati & College of Engineering,
			Pune
3	III Sem	Electrical Network Analysis	IIT Guwahati & College of Engineering,
		Lab	Pune
			IIT Kharagpur
4	V Sem	Electrical Machines-II Lab	College of Engineering, Pune
5	V Sem	Microprocessor &	IIT-Bombay
		Microcontroller Applications	
		Lab	
6	V Sem	Linear Integrated Circuits &	College of Engineering Pune
		Digital Electronics Lab	IIT-Bombay
			IIT-Bombay

			IIT - Kharagpur Amrita Vishwa Vidyapeetham
7	VII Sem	Digital Signal Processing Lab (BE VII Semester)	Virtual Labs (IIT Kharagpur)
8	VII Sem	Power Systems Lab	IIT, DEI
9	VII Sem		College of Engineering Pune
		Integrated Circuits Lab	IIT-Bombay
		Integrated Circuits Lab	IIT-Bombay
			IIT - Kharagpur
			Amrita Vishwa Vidyapeetham
10	ME Isem	Power Electronics &	IIT- Bombay
		Simulation Lab	

# 1.3 Project Viva

Project viva was conducted through Cisco Webex for the final year BE and ME students during the period 01-07-2020 to 18-07-2020 and 10-08-2020 to 11-08-2020 respectively.

# **1.4** Assessment methodology

Internal test and Quiz for BE and ME students (theory and laboratory) were conducted via Google forms during the period 24-06-2020 to 11-07-2020.

# 2. Training and Placements

For successful placements of the students, continuous training and mock tests were conducted to the students. Various companies such as TCS, Infosys, Accenture, Larsen & Turbo Infotech Limited, LTI limited recruited 27 students got placed by December 2020.

# 3. Co-curricular activities

To impart the knowledge of latest technology and industrial applications, the following co curricular activities are arranged for students.

S. No.	Date	Activity Scheduled	Activity conducted
1	16.09.2020	Network Analysis	Guest Lecture on "General aspects of Electrical Control Systems" by Dr.N.Viswanathan, Professor, NIT Warangal
2	23.09.2020	Electromagnetic Field	Guest Lecture on "Career Guidance" by

		Theory/Guest Lecture	Dr.SyamS.Diwakaruni, Senior Architect in Cloud space, IBM India, Hyderabad (conducted on 22.09.2020)
3	11.11.2020	Electromagnetic Field Theory	Guest Lecture on "Applications of Electromagentics" by Sri.P.N.Srinivas, Principal Engineer- ABB, Hyderabad
4	18.11.2020	Network Analysis	Electromagnetic Field Theory Topic: Two problems on force, torque experienced by rectangular loop.
5	02.12.2020	Network Analysis	An online Guest Lecture on "Career opportunities in Core sector" for 2/4, 3/4 and 4/4, BE, EEE students under Co-curricular activities was conducted on 02.12.2020 from 11:00 am to 12:00 noon. The speaker was Dr. Dr. D. P. Kothari, Former Director i/c IIT Delhi.

# 4. Faculty Development Programmes

To enhance the knowledge of various subjects, faculty attended 32 programmes of 1 to 2 weeks duration.

# 5. Self learning

To inculcate the habit of self learning, all the faculty and students are encouraged to complete online courses conducted by NPTEL, Coursera. Faculty completed 10 NPTEL certifications and 9 Coursera certifications. Students completed 54 NPTEL certifications and 87 Coursera certifications.

# 6. Research and consultancy

Faculty made effective utilization of time and published 8 papers in Scopus indexed journals. Head of the Department also submitted the following project proposals.

Name of the project	Funding Agency	Project cost (Rs.)	Name of the Principal Investigator	Date of Proposal
Development of Automated Clay Processing Equipment For Pottery	DST (KVI)	15,00,000	Dr.M.Chakravarthy	31-08-2020

Development and Automation of Solar Cabinet Dryer	DST	50,90,915	Dr.M.Chakravarthy	29-10-2020
Characterization of Batteries of different Chemistries for determining the Optimized Battery Performance for Energy Storage Systems and Electric Vehicles	AICTE	20,14,038	Dr.M.Chakravarthy	15-12-2020

Dr. M. Chakravarthy HOD - EEE