

**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Department of Electronics and Communication Engineering**

**Standing Committee to Board of Studies Meeting - 20**

Time: 10.30 AM

Venue: Online WebEx

27<sup>th</sup>Feb 2021

**Minutes of the meeting**

**Reporting items:**

1.	Faculty achievements.
2.	Current placement status of Y17 admitted students
3.	List of certification courses offered under ECE for AY 20201-21 Even semester.


**Annexure-I**

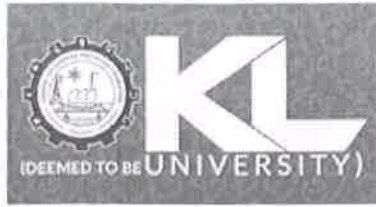
**Agenda items:**

1.	<b>Approval of new B. Tech Programs offered by ECE.</b> <b>Resolution/suggestions:</b> <ul style="list-style-type: none"><li>It is resolved to approve the two new inter-disciplinary UG programs offered with the collaboration of CSE, ECE, ECM, and ME, where the major role will be by the ECE department. The approved programs are listed below<ol style="list-style-type: none"><li><b>B. Tech IoT</b></li><li><b>B. Tech Automation &amp; Robotics</b></li></ol></li></ul>
2.	<b>Approval of new M. Tech programs offered under ECE.</b> <b>Resolution/suggestions:</b> <ul style="list-style-type: none"><li>It is resolved to approve the three new PG programs offered under the department of ECE and are listed below<ol style="list-style-type: none"><li><b>M. Tech IoT</b></li><li><b>M. Tech Automation &amp; Robotics</b></li><li><b>M. Tech Wireless Sensor Networks</b></li></ol></li></ul>
3.	<b>Approval for increase the intake for PG program M. Tech VLSI.</b> <b>Resolution/suggestions:</b> <ul style="list-style-type: none"><li>All the committee members agreed to increase the intake for existing PG program, M. Tech VLSI.</li></ul>

**Other Suggestions:**

1. Dr. V. K. Mittal Suggested to prepare the B. Tech & M. Tech course structure and curriculum as per the guidelines of AICTE.

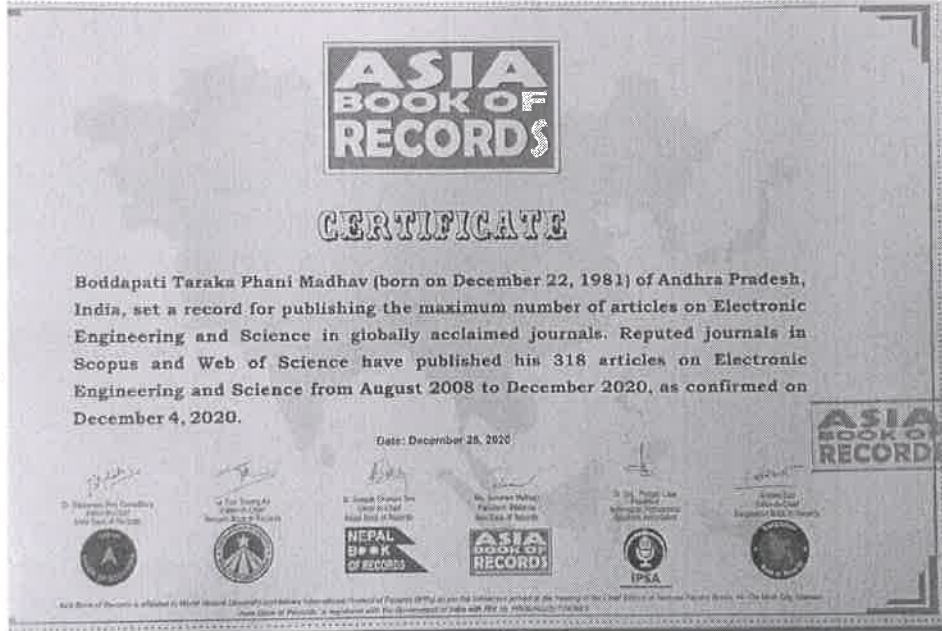
  
**Dr. M. SUMAN**  
Prof. Head  
Department of ECE  
Green Fields, Valdeswaram  
Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Annexure-I**

1. Dr. B. T. P. Madhav, Record for publishing maximum number of articles in reputed journals



2. Placement status of Y17 admitted batch

K L E F DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING				
Category	Pega	WTN	NWTN	Total
Registered	105	399	52	<b>556</b>
Placed	94	266	29	<b>389</b>
Not Interested	0	3	0	<b>3</b>
Backlog/Low CGPA	0	1	0	<b>1</b>
Yet to be Placed	11	129	23	<b>163</b>
SUMMARY	1. Total Placement Registered			<b>556</b>
	2. Placed			<b>389</b>
	3. Yet to be Placed			<b>163</b>
	4. Total Number of Placement Offers			<b>683</b>
	5. Total No. of Companies visited for ECE			<b>32</b>
	6. Total No. of NR Students Placed			<b>23</b>
	7. Highest package offered (LPA)			<b>12.2</b>

**Dr. M. SUMAN**

Professor & Head  
Department of ECE

BOS Chair, ECE

Green Fields, Indaswaram  
Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

Program: B.Tech ECE AY 2020-21: Even Semester				
Sl.	Specialization	Course Name	Level (1/2/3/4)	Year & sem
1	NA	NI CLAD	0	2.2(Y19), 3.2(Y18) & 4.2(Y17)
2	NA	NI CLD	1	4.2(Y17)
3	NA	NI CLA	2	4.2(Y17)
4	IoT	IOT Analytics & Data Sciences	1	3.2(Y18) & 4.2(Y17)
5		Advanced IOT Analytics with Machine Learning	2	4.2(Y17)
13	VLSI	Verification using system verilog	1	3.2(Y18) & 4.2(Y17)
14		Fundamentals of UVM (Universal Verification Methodology)	2	4.2(Y17)
15		Electronic circuit & Analog Layout Design	1	3.2(Y18) & 4.2(Y17)
16		CMOS Analog Circuit & Layout Design	2	4.2(Y17)
17		Synthesis and Timing analysis	1	3.2(Y18) & 4.2(Y17)
18		Physical Design and Verification	2	4.2(Y17)
19		VLSI & Embedded System and Applications	1	4.2(Y17)
20	Data Communications	Huawei Certified ICT Associate Routing and Switching (HCIA-R&S)	1	3.2(Y18) & 4.2(Y17)
21		Huawei Certified ICT Professional Routing and Switching (HCIP-R&S)	2	4.2(Y17)
22		Huawei Certified ICT Expert Routing and Switching(HCIE-R&S)	3	4.2(Y17)
23	RF & Microwave	RF Systems-Modelling, Design and Simulation	1	3.2(Y18) & 4.2(Y17)
24		Fabrication, Testing and Validation	2	4.2(Y17)
25	Data Computing	Huawei Certified ICT Associate Artificial Intelligence (HCIA-AI)	1	3.2(Y18) & 4.2(Y17)
26		Huawei Certified ICT Professional Artificial Intelligence (HCIP-AI)	2	4.2(Y17)
27		Huawei Certified ICT Expert Artificial Intelligence (HCIE-AI)	3	4.2(Y17)
28		Artificial Intelligence Engineer	1	3.2(Y18) & 4.2(Y17)
29		Automation Test Engineer	2&3	4.2(Y17)
30		Data Science Certification Training	1	3.2(Y18) & 4.2(Y17)
31		Data Science with Python Training Course	2	4.2(Y17)
32	COE Program in Cyber Security/Network Security Associate/ Network Security Professional	2&3	4.2(Y17)	

*Dr. M. GUMAN*  
 Head  
 BOS Chair, ECE  
 Green Fields, Guntur Dist., A.P. PIN: 522 502

## Invitation for ECE Dept. Standing Committee to Board of Studies Meeting (27-02-2021) 10.30 AM, KLEF. Reg

HOD-Department of Electronics and Communication Engineering <hod.ece@kluniversity.in>

Sat 27-02-2021 10:22

To: Dr Vinay Kumar Mittal <drvmittal@kluniversity.in>; Dr Koteswararao L . <koteswararao@kluniversityh.in>; mgoutham@klh.edu.in <mgoutham@klh.edu.in>; Advisor Student Affairs <habibulla@kluniversity.in>; Rajesh Vullanki <rajesh4444@kluniversity.in>; Sarat KK <kksarat@kluniversity.in>; Dr. ASCS Sastry <ascssastry@kluniversity.in>; Sri Kavya K Ch <kavya@kluniversity.in>; Dr.MVN <mvn@kluniversity.in>; Dr Madhukar DeshmukhESHMUKH <madhukar\_aau@kluniversity.in>; Lakshman Pappula <lakshman.pappula@kluniversity.in>; Dr.I.Govardhani <govardhaneec@kluniversity.in>; M.S.G.Prasad <msivagangaprasad@kluniversity.in>; K Srinivasa Rao <drksrao@kluniversity.in>; Dr.P.S.Srinivas Babu <satyasrinivas.p@kluniversity.in>; Dr.Penke Satyanarayana <satece@kluniversity.in>; P.V.V.Kishore <pvvkishore@kluniversity.in>; Sridhar Miriyala <sridhar.m@kluniversity.in>; S Koteswara Rao <skrao@kluniversity.in>; Dr. G.V.S.RAO <gvs0raos@kluniversity.in>  
Cc: PRINCIPAL - COE <principal.coe@kluniversity.in>; Raghuvveervr <raghuvveervr@kluniversity.in>; Suman Maloji <suman.maloji@kluniversity.in>

📎 1 attachments (10 KB)

Standing Committee to BOS Members February 2021.xlsx;

Dear Sir/Madam,

Greetings of the Day.

Department of ECE, KLV & KLH are striving to evolve as globally renowned departments for imparting quality technical education for budding engineers, in line with university mission. We are focusing on modification of our curriculum biannually to cater to the contemporary industrial requirements and ratify these modifications through the standing committee to 'Board of studies (BOS)'.

I am very happy to invite you for the standing committee to Board of Studies (BOS) members are appointed as per the attachment.

It is our pleasure to invite you all for our BOS meeting on 27-02-21 (Saturday) from 10.30 AM onward through WebEx platform and the details are given below

Meeting link: <https://kluniversity.webex.com/kluniversity/j.php?MTID=m3f351733883e3fb957c9fa2755a6239f>

Meeting number: 158 613 1449

Password: ahFM9VNPx34

Host key: 787584

Reporting items:

1. Faculty achievements
2. Placement status
3. List of certification courses offered in AY 2020-21 Even Semester

Agenda items:

1. Approval of new B. Tech Programs offered by ECE.
2. Approval of new M. Tech programs offered under ECE.
3. Other points with discretion of the Chair.

**Thanks & Regards**

**Dr. Suman Maloji** M.Tech., Ph.D

**Professor and Head**

Department of Electronics and Communication Engineering

(DST -FIST Sponsored Department)

Koneru Lakshmaiah Education Foundation

(Deemed to be University estd., u/s 3 of UGC Act 1956)

Green Fields, Vaddeswaram 522502.

Guntur Dt., Andhra Pradesh, INDIA.

Mobile: +91- 9848187437

Office: +91-863-2399999 (Ext 1881), Fax: +91-863-2388999

<http://www.kluniversity.in>

**KLEF**  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.**  
**Standing Committee to BOARD OF STUDIES MEETING**  
**DATE: 27-02-2021** **TIME: 10.30 AM**

S. No	Name of the Faculty	Designation
1	Dr. M. Suman, Professor & HOD	BOS Chair
2	Dr. Vinay Kumar Mittal, Professor & Dept. Chair	Member
3	Dr. L. Koteswara Rao, Professor & Principal, KLH	Member
4	Dr. M. Goutham, Assoc. Professor, HOD-ECE, KLH	Member
5	Dr. Habibullah Khan, Professor & Dean Student Affairs	Member
6	Dr. V Rajesh, Professor & Dean P & D,	Member
7	Dr. K.Sarat Kumar, Professor	Member
8	Dr. A.S.C.S.Sastry, Professor & COE	Member
9	Dr. K.Ch.Sri Kavya, Professor	Member
10	Dr. M Venkata Narayana, Professor & DHOD	Member
11	Dr. Madhukar Deshmukh, Professor & DHOD	Member
12	Dr. Lakshman Pappula, Assoc. Professor & DHOD	Member
13	Dr. I.Govardhani, Professor & RPAC	Member
14	Dr. M.Siva Ganga Prasad, Professor & HOD ECM	Member
15	Dr. P. Satya Srinivas Babu, Professor	Member
16	Dr. P Satyanarayana, Professor	Member
17	Dr. P V V Kishore, Professor	Member
18	Dr. M Sridhar, Professor, HOD-BES	Member
19	Dr. S Koteswara rao, Professor	Member
20	Dr. G V Subbarao, Professor & RPAC	Member
21	Dr. M Venugopal Rao Professor & Assoc. Dean IQAC	Member
22	Dr. B T P Madhav, Professor & Assoc. Dean R&D	Member
23	Dr. D Venkat Ratnam, Professor	Member
24	Dr. K Srinivas Rao, Professor	Member
25	Dr. K Kumar Naik, Professor	Member
26	Dr. V. S. V. Prabhakar, Professor & Director IC	Member
27	Dr. K.S.Ramesh, Professor	Member
28	Dr. K.Hari Kishore, Professor & Assoc. Dean	Member
29	Dr. Md.Z Rehman, Professor	Member
30	Dr. P.Pardhasaradhi, Professor	Member
31	Dr. B.Polaiah, Professor	Member
32	Dr. Fazal Noorbasha, Assoc. Professor & Assoc.Dean	Member
33	Dr. Arun Metha, Assoc. Professor	Member
36	Dr. M. Ravi Kumar, Asst. Professor	Member

*M. Suman*

**Dr. M. SUMAN**  
 Professor & Head  
 Department of ECE

Green Field, Koteswaram  
 Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Department of Electronics and Communication Engineering**

**Department Academic Committee Meeting**

**26<sup>th</sup> February 2021**

**Time: 10 AM**

**Online WebEx Meeting**

**Reporting items**

- a. Faculty awards and recognitions
- b. Placement status
- c. List of Certification Courses offered by ECE A.Y 2020-2021.

**Agenda Points:**

1. Approval of new B. Tech Programs offered by ECE.
2. Approval of new M. Tech programs offered under ECE.
3. Discussion on student and faculty feedback (Stake holder's feedback)

**Minutes of the meeting**

1. HOD has presented the faculty awards, various research activities conducted during the AY 2020-21 and the current placement status.
2. All DAC members approved the introduction of new B. Tech programs offered under ECE.
  - a. B. Tech in Internet of Things
  - b. B. Tech in Automation & Robotics
3. All DAC members approved the introduction of new M. Tech programs offered under ECE along with existing programs (M. Tech RADAR & Communication, M. Tech VLSI)
  - a. M. Tech in Automation & Robotics
  - b. M. Tech in IoT
  - c. M. Tech in Wireless Sensor Networks
4. Stake holder's feedback is discussed at length for the enhancement of curriculum and teaching learning process.

Dr. S. Suman  
Head  
ECE  
**HOD, ECE**  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502



## DAC Meeting at 10 AM on 26-02-2021, ECE Department -Reg.

HOD-Department of Electronics and Communication Engineering <hod.ece@kluniversity.in>

Thu 2/25/2021 9:32 PM

To: ECE Faculty <ecefaculty@kluniversity.in>

Cc: Suman Maloji <suman.maloji@kluniversity.in>; PRINCIPAL - COE <principal.coe@kluniversity.in>; Raghuvveervr <raghuvveervr@kluniversity.in>; Dr Vinay Kumar Mittal <drvkmittal@kluniversity.in>

📎 1 attachments (64 KB)

DAC CIRCULAR Feb 2021.docx;

Dear faculty,

Good Evening to all.

DAC meeting is scheduled on **26-02-2021, 10.00 AM.**

The major agenda points and list of members constituted for DAC are detailed in the attachment.

We request all the DAC members to attend the meeting using below link

<https://kluniversity.webex.com/kluniversity/j.php?MTID=m26b0d429b5dec11712a5e10b6f3d2613>

Meeting number: 158 830 4934

Password: 3RgaFmfZ3G3

Thank you,  
with best regards

**Dr. Suman Maloji M.Tech., Ph.D**  
**Professor and Head**

Department of Electronics and Communication Engineering  
(DST -FIST Sponsored Department)

Koneru Lakshmaiah Education Foundation

(Deemed to be University estd., u/s 3 of UGC Act 1956)

Green Fields, Vaddeswaram 522502.

Guntur Dt., Andhra Pradesh, INDIA.

Mobile: +91- 9848187437

Office: +91-863-2399999 (Ext 1881), Fax: +91-863-2388999

<http://www.kluniversity.in>





Date: 26-02-2021,

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**CIRCULAR**

The Department Academic Committee meeting will be conducted on 26-02-2021 at 10.00 A.M through WebEx.

Reporting items

- a. Faculty awards and recognitions
- b. Placement status
- c. List of Certification Courses offered by ECE A.Y 2020-2021.

Agenda Points:

1. Approval of new B. Tech Programs offered by ECE.
2. Approval of new M. Tech programs offered under ECE.
3. Discussion on student and faculty feedback (Stake holder's feedback).

The list of members constituted for DAC meeting is as follows

S. No	Emp. No	Name of the Faculty, Designation	Position
1	5924	Dr. Vinay kumar Mittal, Professor	Dept. chair
2	841	Dr. M. Suman, Professor & HOD	BOS Chair
3	731	Dr. M. Venkata Narayana, Professor & DyHOD	Member
4	5986	Dr. Madhukar Deshmukh, Professor & DyHOD	Member
5	4858	Dr. P. Lakshman, Assoc. Professor & DyHOD	Member
6	928	Dr. K. Ch. Sri Kavya, Professor	Member
7	6362	Dr. Habibulla Khan, Professor & Advisor Dean(SA)	Member
8	4444	Dr. V. Rajesh, Professor & Dean (P&D)	Member
9	4769	Dr. V. S. V. Prabhakar, Professor & Director-IC	Member
10	855	Dr. I. Govardhani, Professor & RPAC Chair	Member
11	1712	Dr. K. S. Ramesh, Professor	Member
12	1737	Dr. B. T. P. Madhav, Professor & Assoc. Dean R&D	Member
13	2326	Dr. K. Sarat Kumar, Professor	Member
14	2457	Dr. K. Hari Kishore, Professor & Assoc. Dean SF	Member
15	2462	Dr. P. Satyanarayana, Professor	Member
16	2513	Dr. P. Satya Srinivas Babu, Professor	Member
17	2469	Dr. M. Sridhar, Professor	Member
18	2684	Dr. D. Venkata Ratnam, Professor	Member
19	2838	Dr. G. V. Subbarao, Professor & RPAC Chair	Member



# KONERU LAKSHMAIAH EDUCATION FOUNDATION

(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

20	2922	Dr. M. Venu Gopala Rao, Professor & Assoc. Dean IQAC	Member
21	3144	Dr. K. Kumar Naik, Professor	Member
22	3388	Dr. A. S. C. S. Sastry, Professor & COE	Member
23	3413	Dr. Md. Z Rehman, Professor	Member
24	3452	Dr. P. Venkat Vijay Kishore, Professor	Member
25	3621	Dr. P. Pardhasaradhi, Professor, I/C PG & Assoc. Dean R&D	Member
26	3843	Dr. S. Koteswararao, Professor	Member
27	3867	Dr. K. Srinivasarao, Professor	Member
28	4387	Dr. B. Polaiah, Professor	Member
29	6303	Dr. P. Satya Srinivas Babu, Professor	Member
30	1181	Dr. M. Ravi Kumar, Assoc. Professor	Member
31	1748	Dr. N. V. K. Ramesh, Assoc. Professor	Member
32	2221	Dr. B. Murali Krishna, Assoc. Professor	Member
33	2224	Dr. G. Venkata Genesh, Assoc. Professor	Member
34	2455	Dr. M. Siva Kumar, Assoc. Professor	Member
35	2456	Dr. Syed Inthiyaz, Assoc. Professor	Member
36	2488	Dr. Fazal Noorbasha, Assoc. Professor & Assoc. Dean AC	Member
37	2721	Dr. Nagesh Mantravadi, Assoc. Professor & Assoc. Dean IQAC	Member
38	2812	Dr. M. V. D. Prasad, Assoc. Professor	Member
39	2902	Dr. G. R. K. Prasad, Assoc. Professor & Assoc. Dean P&D	Member
40	2978	Dr. D. Bhavana, Assoc. Professor	Member
41	2982	Dr. C. Sreevardhan, Assoc. Professor	Member
42	2994	Dr. Ch. Raghava Prasad, Assoc. Professor	Member
43	3066	Dr. N. Siddaiah, Assoc. Professor	Member
44	3864	Dr. China Satyanarayana, Assoc. Professor	Member
45	4272	Dr. G. Sai Krishna Santosh, Assoc. Professor	Member
46	4291	Dr. S. Sunithamani, Assoc. Professor	Member
47	4608	Dr. Sampad Kumar Panda, Assoc. Professor	Member
48	4719	Dr. Y. Usha Devi, Assoc. Professor	Member
49	4958	Dr. M. Kasi Prasad, Assoc. Professor	Member
50	4966	Dr. N. Prabakaran, Assoc. Professor	Member
51	5041	Dr. Vipul Agarwal, Assoc. Professor	Member
52	5148	Dr. Ipseeta Nanda, Assoc. Professor	Member
53	5288	Dr. S. A. Sivasankari, Assoc. Professor	Member
54	5395	Dr. S V. Aswin Kumer, Assoc. Professor	Member
55	5398	Dr. R. Revathi, Assoc. Professor	Member
56	5406	Dr. S. Rooban, Assoc. Professor	Member
57	5616	Dr. S. Arunmetha, Assoc. Professor	Member
58	5630	Dr. Shruti Suman, Assoc. Professor	Member
59	5759	Dr. Sourabh Upadhyay, Assoc. Professor	Member
60	5884	Dr. Arjuna muduli, Assoc. Professor	Member



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

61	5921	Dr. Poorna Priya, Assoc. Professor	Member
62	2993	Dr. B. Suresh, Assoc. Professor	Member
63	4695	Dr. R. S. Ernest Ravindran, Assoc. Professor	Member
64	5381	Dr. C. Joshitha, Assoc. Professor	Member
65	5439	Dr. Chella Santhosh, Assoc. Professor	Member
66	5675	Dr. K. Praghash, Assoc. Professor	Member
67	5677	Dr. Biswajit Jena, Assoc. Professor	Member
68	5891	Dr. E. Kiran Kumar Assoc. Professor	Member
69	5927	Dr. Aravind Kilaru, Assoc. Professor	Member
70	5954	Dr. N Phalguni Singh, Assoc. Professor	Member
71	6365	Dr. Aravindhana Alagarsamy Assoc. Professor	Member
72	1286	Dr. S. Nagendram, Asst. Professor	Member
73	2045	Dr. K. Ravi Kumar Asst. Professor	Member
74	3726	Dr. P. Saleem Akram Asst. Professor	Member
76	4773	Dr. K. Girija Sravani Asst. Professor	Member
77	4975	Dr. G. Siva Vara Prasa, Asst. Professor	Member
78	5129	Dr. C. S. Preetham Reddy, Asst. Professor	Member
79	5137	Dr. B. John Philip Asst. Professor	Member
80	6027	Dr. Rahul Bosu Asst. Professor	Member
81	6224	Dr. Atul Kumar Asst. Professor	Member
82	6213	Dr. Naren Das, Asst. Professor	Member
83	6454	Dr. SK. Hasane Ahammad	Member



# Koneru Lakshmaiah Education Foundation

(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)

Accredited by NAAC as 'A++' Grade University ❖ Approved by AICTE ❖ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 502, Guntur District, Andhra Pradesh, INDIA.

Phone No. 0863 - 2399999 | www.klef.ac.in | www.klef.edu.in | www.kluniversity.in

Admin Off: 29-35-38, Museum Road, Governorpet, Vijayawada - 520 002 Ph: +91 - 866 -2577715, Fax: +91-866-2577717

## Department of Electronics and Communication Engineering

### Board of Studies Meeting - 19

Time: 11AM

Venue: Online WebEx

07<sup>th</sup> Dec 2020

### Minutes of the meeting

#### Agenda items:

1.	<p><b>Approval of changes in academic course structure for 20-21 admitted students.</b></p> <p><b>Resolution/suggestions:</b></p> <ul style="list-style-type: none"><li>• It is resolved to approve the academic course structure of Y20 regulation.</li><li>• It is resolved to approve the changes in the course 19EC1213 basic electronic circuits as 20EC1213 Design of Basic Electronic Circuits with L-T-P-S of 3-0-0-0.</li><li>• It is resolved to approve the inclusion of Data Structures and Algorithms with L-T-P-S of 3-0-2-4 with course code of 20SC1202 in to the I-year second semester.</li><li>• It is resolved to approve the course 20SC1203 Object Oriented Programming with L-T-P-S of 2-0-4-0 in II Year second semester.</li></ul> <p style="text-align: right;"><b>ANNEXURE-I</b></p>
2.	<p><b>Suggestions and proposals B. Tech curriculum 2021-22.</b></p> <p><b>Resolution/suggestions:</b></p> <ul style="list-style-type: none"><li>• The BOS chair called for industry collaborations/MoU's under each specialization. The industry connections are to enhance the curriculum through establishing center of excellence, syllabus upgradation, conducting faculty training programs, global certification courses and skilling courses, with a final objective of core placements.</li><li>• BOS chair, given the details of existing industry collaborations.</li><li>• External academic expert member suggested to have same curriculum for at least two academic years.</li></ul>
3.	<p><b>Discussion on industry connect &amp; certificate courses offered under all specializations.</b></p> <p><b>Resolution/suggestions:</b></p> <ul style="list-style-type: none"><li>• It is resolved to approve the proposed certificate courses/ value added courses under all specializations.</li></ul>

BOS Chair, ECE

*[Signature]*  
**Dr. M. SUMAN**  
Prof. & Head  
Dept. of ECE  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502



## Koneru Lakshmaiah Education Foundation

(Category -1, Deemed to be University estd. u/s 3 of the UGC Act, 1956)

Accredited by NAAC as 'A++' Grade University ❖ Approved by AICTE ❖ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 502, Guntur District, Andhra Pradesh, INDIA.

Phone No. 0863 - 2399999; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 29-36-38, Museum Road, Governorpet Vijayawada - 520 002 Ph: +91 - 866 -2577715, Fax +91-866-2577717

	<ul style="list-style-type: none"><li>• BOS chair, elaborated the value added courses and the plan of action and execution. Also the three level of certificate courses to guide the students towards employability/entrepreneurship/ career advancement.</li><li>• BOS chair have given the details of MoUs with National Instruments and Huawei for offering the certificate courses/value added courses.</li></ul> <p style="text-align: right;"><b>ANNEXURE-II</b></p>
4.	<p><b>Approval of new M. Tech specializations.</b></p> <p><b>Resolution/suggestions:</b></p> <ul style="list-style-type: none"><li>• It is resolved to approve the list M. Tech programs offered under dept of ECE <b>M. Tech in VLSI &amp; Microelectronics</b> <b>M. Tech in Radar &amp; Communication</b> <b>M. Tech in IOT &amp; Smart City Technologies</b> <b>M. Tech in Robotics &amp; Automation Electronics</b> <b>M. Tech in Signal Processing with AI &amp; ML</b> <b>M. Tech in AI &amp; DS for Electronic Communication Systems</b></li></ul>

*M. Suman*  
**Dr. M. SUMAN**  
Professor & Head  
Department of ECE  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502

BOS Chair, ECE

## Invitation for ECE Dept. Board of Studies Meeting (07-12-2020), KLEF. Reg

HOD-Department of Electronics and Communication Engineering <hod.ece@kluniversity.in>

Sun 06-12-2020 09:27

To: Dr Vinay Kumar Mittal <drvkmittal@kluniversity.in>; Dr Koteswararao L . <koteswararao@kluniversityh.in>; Goutham M <mgoutham@klh.edu.in>; anil.vuppala@iiit.ac.in <anil.vuppala@iiit.ac.in>; kishorefr@gmail.com <kishorefr@gmail.com>; Advisor Student Affairs <habibulla@kluniversity.in>; Rajesh Vullanki <rajesh4444@kluniversity.in>; Sarat KK <kksarat@kluniversity.in>; Dr. ASCS Sastry <ascssastry@kluniversity.in>; Sri Kavya K Ch <kavya@kluniversity.in>; Dr.MVN <mvn@kluniversity.in>; Dr Madhukar DeshmukhESHMUKH <madhukar\_aau@kluniversity.in>; Lakshman Pappula <lakshman.pappula@kluniversity.in>; Dr.I.Govardhani <govardhaneec@kluniversity.in>; M.S.G.Prasad <msivagangaprasad@kluniversity.in>; Dr.P.S.Srinivas Babu <satyasrinivas.p@kluniversity.in>; Dr.Penke Satyanarayana <satece@kluniversity.in>; P.V.V.Kishore <pvvkishore@kluniversity.in>; Sridhar Miriyala <sridhar.m@kluniversity.in>; S Koteswara Rao <skrao@kluniversity.in>

Cc: PRESIDENT <president@kluniversity.in>; Dr. LSS Reddy <drlssreddy@kluniversity.in>; N Venkat Ram <venkatram@kluniversity.in>; PRINCIPAL - COE <principal.coe@kluniversity.in>; Registrar <registrar@kluniversity.in>; Suman Maloji <suman.maloji@kluniversity.in>; Dr. K Rama Krishna, Dean(Quality) <drkrk@kluniversity.in>; Dr. V. Krishna Reddy <vkrishnareddy@kluniversity.in>; Dr G.Krishna Kumari <krishnagannamaraju@kluniversityh.in>; Dr Jagadeesh Anne <drjagadeesh@kluniversity.in>; Raghuvveerv <raghuvveerv@kluniversity.in>; Office of Dean Academics <academicsoffice@kluniversity.in>

📎 2 attachments (104 KB)

Minutes of DAC Nov 2020-21.docx; Y20 ECE Semester structure 02-11-2020.xlsx;

Dear Sir/Madam,

Greetings of the Day.

Department of ECE, KLV & KLH are striving to evolve as globally renowned departments for imparting quality technical education for budding engineers, in line with university mission. We are focusing on modification of our curriculum biannually to cater to the contemporary industrial requirements and ratify these modifications through the department 'Board of studies (BOS)'.

I am very happy to inform you that by direction's of higher authorities ,Board of Studies (BOS) members are appointed as per the attachment.

It is our pleasure to invite you all for our BOS meeting on 07-12-20 (Monday) from 11 AM onward through WebEx platform and the details are given below

KLEF ECE: Board of Studies Meeting

<https://kluniversity.webex.com/kluniversity/j.php?MTID=m60472aae4ba5478c28cf35edfc8a5639>

Monday, Dec 7, 2020 11:00 am | 1 hour | (UTC+05:30) Chennai, Kolkata, Mumbai, New Delhi

Meeting number: 158 634 4509

Password: jsMj7HnDh28

### Reporting items:

1. Faculty achievements
2. Research activities
3. Placement status

### Agenda items:

1. Approval of changes in academic course structure for 20-21 admitted students.
2. Suggestions and proposals B. Tech curriculum 2021-22.
3. Discussion on industry connect & certificate courses offered under all specializations.
4. Approval of new M. Tech specializations

DAC meetings and Y20 modified courses structure are attached for your kind perusal.  
Looking forward to your presence and valuable suggestions  
Thank you,

With best regards

**Dr. Suman Maloji** M.Tech., Ph.D

**Professor and Head**

Department of Electronics and Communication Engineering

(DST -FIST Sponsored Department)

Koneru Lakshmaiah Education Foundation

(Deemed to be University estd., u/s 3 of UGC Act 1956)

Green Fields, Vaddeswaram 522502.

Guntur Dt., Andhra Pradesh, INDIA.

Mobile: +91- 9848187437

Office: +91-863-2399999 (Ext 1881), Fax: +91-863-2388999

<http://www.kluniversity.in>





**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Department of Electronics and Communication Engineering**

**Department Academic Committee Meeting**

**20<sup>th</sup> November 2020**

**Time: 3 PM**

**Online WebEx Meeting**

**Reporting items**

- a. Faculty awards and recognitions
- b. Research activities in the department
- c. Placement status

**Agenda Points:**

1. Proposed changes in academic course structure of 20-21 admitted students.
2. Call for proposals B. Tech curriculum 2021-22.
3. Proposals and modifications for new and existing M. Tech programs.
4. Discussion on student and faculty feedback (Stake holder's feedback).
5. Approval of PG Diploma courses offered by ECE Department.
6. Certification courses offered under all specializations.

**Minutes of the meeting**

1. HOD has presented the faculty awards, various research activities conducted during the odd semester of AY 2020-21 and the current placement status.
2. All DAC members approved the course 20SC1202 Data Structure and Algorithms with L-T-P-S structure of 3-0-2-4, forwarded to BOS for approval.
3. Also the members approved to offered the course 20SC1203 Object Oriented Programming with L-T-P-S structure of 2-0-4-0 in II Year Even semester.
4. HOD called for proposals of new courses in all sub-streams as per the requirement of industry and thrust areas of electronics and communications.
5. All the DAC members approved the certification courses offered under all the sub-streams and forwarded to BOS for approval.
6. HOD called the Head coordinators of all the sub-streams to have a MoU with industries related to sub-streams.
7. Stake holder's feedback is discussed at length and the Dept. Chair suggested to implement new teaching pedagogies for effective course delivery.

**Dr. M. SUMAN**  
Professor & Head  
Department of ECE  
**HOD, ECE**  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502

Re: DAC Meeting at 3 PM on 20-11-2020, ECE Department -Reg.

HOD-Department of Electronics and Communication Engineering <hod.ece@kluniversity.in>

Fri 11/20/2020 2:59 PM

To: ECE Faculty <ecefaculty@kluniversity.in>; Goutham M <mgoutham@klh.edu.in>; Dr Koteswararao L . <koteswararao@kluniversityh.in>

Cc: Suman Maloji <suman.maloji@kluniversity.in>

A Gentle reminder for all DAC members.

**Regards**

**Dr. Suman Maloji M.Tech., Ph.D**

**Professor and Head**

Department of Electronics and Communication Engineering

(DST -FIST Sponsored Department)

Koneru Lakshmaiah Education Foundation

(Deemed to be University estd., u/s 3 of UGC Act 1956)

Green Fields, Vaddeswaram 522502.

Guntur Dt., Andhra Pradesh, INDIA.

Mobile: +91- 9848187437

Office: +91-863-2399999 (Ext 1881), Fax: +91-863-2388999

<http://www.kluniversity.in>

---

**From:** HOD-Department of Electronics and Communication Engineering

**Sent:** 19 November 2020 16:58

**To:** ECE Faculty <ecefaculty@kluniversity.in>

**Cc:** Registrar <registrar@kluniversity.in>; PRINCIPAL - COE <principal.coe@kluniversity.in>; Raghuvveerv <raghuvveerv@kluniversity.in>; Suman Maloji <suman.maloji@kluniversity.in>

**Subject:** DAC Meeting at 3 PM on 20-11-2020, ECE Department -Reg.

Dear faculty,

Good Evening to all.

DAC meeting is scheduled on **20-11-2020, 3.00 PM**. The major agenda points and list of members constituted for DAC is detailed in the attachment.

We request all the DAC members to attend the meeting using below link

<https://kluniversity.webex.com/kluniversity/j.php?MTID=m06e16ba07d49cf47b3a3068be765d96c>

Meeting number: 158 345 3774

Password: Vn6QFV2G5J3

Thank you,

with best regards

**Dr. Suman Maloji M.Tech., Ph.D**

**Professor and Head**

Department of Electronics and Communication Engineering

(DST -FIST Sponsored Department)

Koneru Lakshmaiah Education Foundation

(Deemed to be University estd., u/s 3 of UGC Act 1956)  
Green Fields, Vaddeswaram 522502.  
Guntur Dt., Andhra Pradesh, INDIA.

Mobile: +91- 9848187437

Office: +91-863-2399999 (Ext 1881), Fax: +91-863-2388999

<http://www.kluniversity.in>



Date: 19-11-20,

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**CIRCULAR**

The Department Academic Committee meeting will be conducted on 20-11-2020 at 03:00 P.M through WebEx.

Reporting items

- a. Faculty awards and recognitions
- b. Research activities in the department
- c. Placement status

Agenda Points:

1. Proposed changes in academic course structure of 20-21 admitted students.
2. Call for proposals B. Tech curriculum 2021-22.
3. Proposals and modifications for new and existing M. Tech programs.
4. Discussion on student and faculty feedback (Stake holders feedback).
5. Approval of PG Diploma courses offered by ECE Department.
6. Certification courses offered under all specializations.

The list of members constituted for DAC meeting is as follows

S. No	Emp. No	Name of the Faculty, Designation	Position
1	5924	Dr. Vinay kumar Mittal, Professor	Dept. chair
2	841	Dr. M. Suman, Professor & HOD	BOS Chair
3	731	Dr. M. Venkata Narayana, Professor & DyHOD	Member
4	5986	Dr. Madhukar Deshmukh, Professor & DyHOD	Member
5	4858	Dr. P. Lakshman, Assoc. Professor & DyHOD	Member
6	928	Dr. K. Ch. Sri Kavaya, Professor	Member
7	11	Dr. Habibulla Khan, Professor & Dean(SA)	Member
8	4444	Dr. V. Rajesh, Professor & Dean (P&D)	Member
9	4769	Dr. V. S. V. Prabhakar, Professor & Director-IC	Member
10	855	Dr. I. Govardhani, Professor & RPAC Chair	Member
11	1712	Dr. K. S. Ramesh, Professor	Member
12	1737	Dr. B. T. P. Madhav, Professor & Assoc. Dean R&D	Member
13	2326	Dr. K. Sarat Kumar, Professor	Member
14	2457	Dr. K. Hari Kishore, Professor & Assoc. Dean SF	Member
15	2462	Dr. P. Satyanarayana, Professor	Member
16	2513	Dr. P. Satya Srinivas Babu, Professor	Member
17	2469	Dr. M. Sridhar, Professor	Member



# KONERU LAKSHMAIAH EDUCATION FOUNDATION

(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

18	2684	Dr. D. Venkata Ratnam, Professor	Member
19	2838	Dr. G. V. Subbarao, Professor & RPAC Chair	Member
20	2922	Dr. M. Venu Gopala Rao, Professor & Assoc. Dean IQAC	Member
21	3144	Dr. K. Kumar Naik, Professor	Member
22	3388	Dr. A. S. C. S. Sastry, Professor & COE	Member
23	3413	Dr. Md. Z Rehman, Professor	Member
24	3452	Dr. P. Venkat Vijay Kishore, Professor	Member
25	3621	Dr. P. Pardhasaradhi, Professor, I/C PG & Assoc. Dean R&D	Member
26	3843	Dr. S. Koteswararao, Professor	Member
27	3867	Dr. K. Srinivasarao, Professor	Member
28	4387	Dr. B. Polaiiah, Professor	Member
29	6303	Dr. P. Satya Srinivas Babu, Professor	Member
30	1181	Dr. M. Ravi Kumar, Assoc. Professor	Member
31	1748	Dr. N.V.K.Ramesh, Assoc. Professor	Member
32	2221	Dr. B. Murali Krishna, Assoc. Professor	Member
33	2455	Dr. M. Siva Kumar, Assoc. Professor	Member
34	2456	Dr. Syed Inthiyaz, Assoc. Professor	Member
35	2488	Dr. Fazal Noorbasha, Assoc. Professor & Assoc. Dean AC	Member
36	2721	Dr. Nagesh Mantravadi, Assoc. Professor & Assoc. Dean IQAC	Member
37	2812	Dr. M. V. D. Prasad, Assoc. Professor	Member
38	2902	Dr. G. R. K. Prasad, Assoc. Professor & Assoc. Dean P&D	Member
39	2978	Dr. D. Bhavana, Assoc. Professor	Member
40	2982	Dr. C. Sreevardhan, Assoc. Professor	Member
41	2994	Dr. Ch. Raghava Prasad, Assoc. Professor	Member
42	3066	Dr. N. Siddaiah, Assoc. Professor	Member
43	3864	Dr. China Satyanarayana, Assoc. Professor	Member
44	4272	Dr. G. Sai Krishna Santosh, Assoc. Professor	Member
45	4291	Dr. S. Sunithamani, Assoc. Professor	Member
46	4608	Dr. Sampad Kumar Panda, Assoc. Professor	Member
47	4719	Dr. Y. Usha Devi, Assoc. Professor	Member
48	4950	Dr. Deepak Kumar Nayak, Assoc. Professor	Member
49	4958	Dr. M. Kasi Prasad, Assoc. Professor	Member
50	4966	Dr. N. Prabakaran, Assoc. Professor	Member
51	5041	Dr. Vipul Agarwal, Assoc. Professor	Member
52	5288	Dr. S. A. Sivasankari, Assoc. Professor	Member
53	5395	Dr. S V. Aswin Kumer, Assoc. Professor	Member
54	5398	Dr. R. Revathi, Assoc. Professor	Member
55	5406	Dr. S. Rooban, Assoc. Professor	Member
56	5616	Dr. S. Arunmetha, Assoc. Professor	Member
57	5630	Dr. Shruti Suman, Assoc. Professor	Member
58	5759	Dr. Sourabh Upadhyay, Assoc. Professor	Member



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

59	5884	Dr. Arjuna muduli, Assoc. Professor	Member
60	5921	Dr. Poorna Priya, Assoc. Professor	Member
61	2993	Dr. B. Suresh, Assoc. Professor	Member
62	4695	Dr. R. S. Ernest Ravindran, Assoc. Professor	Member
63	1286	Dr. S.Nagendram, Asst. Professor	Member
64	4975	Dr. G. Siva Vara Prasa, Asst. Professor	Member
65	5129	Dr. C. S. Preetham Reddy, Asst. Professor	Member
66	5137	Dr. B. John Philip	Member
67	5148	Dr. Ipseeta Nanda	Member
68	5381	Dr. C. Joshitha, Asst. Professor	Member
69	5439	Dr. Chella Santhosh, Asst. Professor	Member
70	5675	Dr. K. Praghash, Asst. Professor	Member
71	5677	Dr. Biswajit Jena, Asst. Professor	Member
72	5891	Dr. E. Kiran Kumar	Member
73	5927	Dr. Aravind Kilaru, Asst. Professor	Member
74	5954	Dr. N Phalguni Singh, Asst. Professor	Member
75	5934	Dr. S. S. S. Kalyan, Asst. Professor	Member
76	6213	Dr. Naren Das, Asst. Professor	Member

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**Y20 REGULATION**

Sl No.	Course Code	Course Title	Uni/Sch/Dept	Type	L	T	P	S	Cr	CH	Pre-Req.	Independen
<b>SEMESTER - 1</b>												
1	20MT1101	Mathematics for Computing	SCH CORE	BS	2	2	0	2	4.5	6	NIL	
2	20SC1101	Computational Thinking for Design	SCH CORE	ES	3	0	2	6	5.5	11	NIL	
3	20UC1101	INTEGRATED PROFESSIONAL ENGLISH	SCH CORE	HSS	0	0	4	0	2	4	NIL	
4	20ME1103	Design Tools Workshop - I	SCH CORE	ES	0	0	4	0	2	4	NIL	
5	20EC1101	Digital Logic & Processors	UNI CORE	ES	3	0	2	0	4	5	NIL	
<b>Total</b>					<b>9</b>	<b>2</b>	<b>12</b>	<b>12</b>	<b>18</b>	<b>35</b>		
<b>SEMESTER - 2</b>												
1	19MT2102	Mathematics for Engineers	SCH CORE	BS	2	1	0	0	3	3	NIL	
2	20SC1202	Data Structures and Algorithms	SCH CORE	ES	3	0	2	4	5	9	NIL	
3	20UC1202	English Proficiency	UNI CORE	HS	0	0	4	0	2	4	NIL	
4	19SC1209	Design Tools Workshop - II	SCH CORE	BS	0	0	4	0	2	4	NIL	
5	19EC1202	Computer Organization & Architecture	DEP CORE	ES	2	0	0	0	2	2	NIL	
6	20EC1213	DESIGN OF BASIC ELECTRONIC CIRCUITS	SCH ELEC	ES	3	0	0	0	3	3	NIL	
7	20UC1102	DESIGN THINKING AND INNOVATION-I	UNI CORE	BS	1	0	0	4	2	5	NIL	
<b>Total</b>					<b>11</b>	<b>1</b>	<b>10</b>	<b>8</b>	<b>19</b>	<b>30</b>		
<b>SUMMER</b>												
1		Social Internship	SCH ELEC	PR	0	0	0	8	2	8		
<b>SEMESTER - 3</b>												
1	19EC2103	Analog Electronic Circuit Design	DEP CORE	PC	3	0	2	2	4.5	7	NIL	
2	19EC2104	Communication Signals & System Design	DEP CORE	PC	3	1	0	0	4	4	NIL	
3	19EC2105	Analog and Digital Communication	DEP CORE	PC	3	0	3	0	4.5	6	NIL	
4	19EC2106	Embedded Controllers	DEP CORE	PC	2	0	3	2	4	7	NIL	
5	20EC2111	ELECTRONIC SYSTEM DESIGN WORKSHOP	SCH ELEC	ES	1	0	2	2	2.5	5	NIL	
7	20UC1203	DESIGN THINKING AND INNOVATION-II	SCH ELEC	ES	1	0	0	4	2	5	NIL	
8	20EC2112	IT WORKSHOP	SCH ELEC	ES	1	0	2	0	2	3	NIL	
<b>Total</b>					<b>14</b>	<b>1</b>	<b>12</b>	<b>10</b>	<b>23.5</b>	<b>37</b>		
<b>SEMESTER - 4</b>												
1	19EC2207	Electromagnetic fields & Applications	DEP CORE	PC	3	1	0	0	4	4	NIL	
2	19EC2208	Digital Signal Processing	DEP CORE	PC	3	0	2	0	4	5	NIL	
3	20EC2209A	Statistics, AI, ANN	DEP CORE	PC	3	0	0	2	3.5	5	NIL	
	20EC2209	AI & ANN Tools and Applications	DEP CORE	PC	3	0	0	0			NIL	
4	19EC2210	Data Networks & Protocols	DEP CORE	PC	3	0	2	0	4	5	NIL	
5	20EC2214	IOT Workshop	SCH ELEC	ES	1	0	0	4	2	5	NIL	
6	20UC2103	Professional Communication Skills	UNI CORE	HS	0	0	4	0	2	4	NIL	
7		Professional Elective-1	DEP ELEC	PE	3	0	0	0	3	3	NIL	
8	20SC1203	Object Oriented Programming	SCH CORE	ES	2	0	4	0	4	6	NIL	
<b>Total</b>					<b>18</b>	<b>1</b>	<b>12</b>	<b>6</b>	<b>26.5</b>	<b>37</b>		
<b>SEMESTER - 5</b>												
1		Science Elective-1	SCH ELEC	BS	3	0	2	0	4	5	NIL	
2		Flexi Core-1	FLEXI CORE	FC	3	0	2	0	4	5	NIL	
3		Flexi Core-2	FLEXI CORE	FC	3	0	2	0	4	5	NIL	
4		Professional Elective-2	DEP ELEC	PE	3	0	0	0	3	3	NIL	
5		Professional Elective-3	DEP ELEC	PE	3	0	0	0	3	3	NIL	
6	20UC2204	CORPORATE COMMUNICATION SKILLS	UNI CORE	HS	0	0	4	0	2	4	NIL	
7		Open Elective-1 (Advanced Learners)	UNI CORE	OE	3	0	0	0			NIL	
8	20TS3101	Technical Proficiency / Entrepreneurial Incubation	SCH ELEC	SK	0	0	0	12	3	6	NIL	6
9	20IE3050	Technical Internship	SCH ELEC	PR	0	0	0	8	2		NIL	
10	20IE3150	MIDGRADE CAPSTONE PROJECT 1	SCH ELEC	PR	0	0	0	8	2	4		4
11	20UC2104	USER CENTRIC DESIGN TECHNIQUES	SCH CORE	BS	1	0	0	4	2	5	NIL	
<b>Total</b>					<b>19</b>	<b>0</b>	<b>10</b>	<b>32</b>	<b>29</b>	<b>40</b>		
<b>SEMESTER - 6</b>												
1		Science Elective-2	SCH CORE	BS	3	0	2	0	4	5		
2		Flexi Core-3	FLEXI CORE	FC	3	0	2	0	4	5		
3		Professional Elective-4	DEP ELEC	PE	3	0	0	0	3	3	NIL	
4		Professional Elective-5	DEP ELEC	PE	3	0	0	0	3	3	NIL	
5		Professional Elective-6	DEP ELEC	PE	3	0	0	0	3	3	NIL	
6		Design Studio Elective	SCH CORE	PR	0	0	0	10	2.5	10	NIL	
6	20UC3205	Aptitude Builder	UNI CORE	HS	0	0	4	0	2	4	NIL	
7	20IE3250	MIDGRADE CAPSTONE PROJECT 2	SCH ELEC	PR	0	0	0	8	2	2	NIL	6
8	20TS3202	Technical Proficiency / Technopreneurship	SCH ELEC	SK	0	0	0	12	3	4	NIL	8
<b>Total</b>					<b>15</b>	<b>0</b>	<b>8</b>	<b>30</b>	<b>26.5</b>	<b>39</b>		
<b>SEMESTER - 7</b>												
1		Open Elective-1	UNI ELEC	OE	3	0	0	0	3	3	NIL	
2		Open Elective-2	UNI ELEC	OE	3	0	0	0	3	3	NIL	
3	20UC0007	Indian Heritage and Culture	UNI CORE	HS	2	0	0	0			NIL	
4	20UC0008	Indian Constitution	UNI CORE	HS	2	0	0	0			NIL	
5	19BT1001	Biology for Engineers	SCH CORE	BS	2	0	0	0	2	2	NIL	
6	20TS4103	Technical Proficiency / Entrepreneurial Skillling	SCH ELEC	SK	0	0	0	12		8	NIL	4
7	20IE4150/19IE4050	CAPSTONE PROJECT 1 / Practice School	SCH CORE	PR	0	0	0	24	6	12	NIL	12
<b>Total</b>					<b>12</b>	<b>0</b>	<b>0</b>	<b>36</b>	<b>14.0</b>	<b>28</b>		
<b>SEMESTER - 8</b>												
1		Foreign/Non-Native Language Elective	UNI ELEC	OE	2	0	0	0	2	2	NIL	
2	Management Elective	Modeling Business Systems	UNI ELEC	OE	2	0	0	0	2	2	NIL	
3		Entrepreneurship Essentials	UNI ELEC	OE	2	0	0	0	2	2	NIL	
4	20UC0010	Universal Human Values & Professional Ethics	UNI CORE	HS	2	0	0	0	0	2	NIL	
5	20UC0011	Entrepreneurship	UNI CORE	HS	2	0	0	0	0	2	NIL	
6	20UC0009	Ecology & Environment	SCH CORE	HS	2	0	0	0	0	2	NIL	
7	20TS4204	Technical Proficiency / Entrepreneurial Skillling	SCH ELEC	SK	0	0	0	12		8	NIL	4
8	20IE4250/19IE4050/19IE4051	CAPSTONE PROJECT 2 / Practice School/ Internship	SCH CORE	PR	0	0	0	24	6	12	NIL	12
<b>Total</b>					<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12.0</b>	<b>32</b>		
<b>GRAND TOTAL</b>					<b>90</b>	<b>7</b>	<b>98</b>	<b>128</b>	<b>170.5</b>	<b>321</b>		



**KLEF**  
**2020-21 COURSE STRUCTURE**

SNO	COURSE CODE	COURSE NAME	L	T	P	S	Cr	Pre-requisites	OFFERED TO	ECE
<b>I HUMANITIES &amp; SOCIAL SCIENCES</b>										
1	20UC1101	INTEGRATED PROFESSIONAL ENGLISH	0	0	4	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
2	20UC1202	ENGLISH PROFICIENCY	0	0	4	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
3	20UC1204	PROFESSIONAL COMMUNICATION SKILLS	0	0	4	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
4	20UC2204	CORPORATE COMMUNICATION SKILLS	0	0	4	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
5	20UC3005	APTITUDE BUILDER	0	0	4	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
6		FOREIGN LANGUAGE ELECTIVE	2	0	0	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
7	20UC0007	Indian Heritage and Culture	2	0	0	0	0	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	0
8	20UC0008	Indian Constitution	2	0	0	0	0	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	0
9	20UC0009	Ecology & Environment	2	0	0	0	0	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	0
10	20UC0010	Universal Human Values & Professional Ethics	2	0	0	0	0	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	0
11	20UC0011	Entrepreneurship	2	0	0	0	0	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	0
<b>Total Credits</b>										12
<b>II BASIC SCIENCES</b>										
1	20MT1101	MATHEMATICS FOR COMPUTING	2	2	0	2	4.5	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	4.5
2	19MT1202	MATHEMATICS FOR ENGINEERS	2	1	0	0	3	NIL	CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	3
3	20SC1102	DESIGN THINKING AND INNOVATION-1	1	0	0	4	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
4	20SC1203	DESIGN THINKING AND INNOVATION-2	1	0	0	4	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
5	20SC2104	USER CENTRIC DESIGN TECHNIQUES	1	0	0	4	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
6	19BT1001	BIOLOGY FOR ENGINEERS	2	0	0	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
<b>Total Credits</b>										15.5
<b>SCIENCE ELECTIVE - 1</b>										
1	19PH1008	PHYSICS FOR ELECTRONICS ENGINEERING	3	0	2	0	4	NIL		4
2	19PH1004	SOLID STATE PHYSICS	3	0	2	0	4	NIL		
<b>SCIENCE ELECTIVE - 2</b>										
1	19CY1101	ENGINEERING CHEMISTRY	3	0	2	0	4	NIL	BT, EEE, CE, ECE, CSE, ECE	4
2	19CY1003	CHEMISTRY & BIOINFORMATICS FOR ENGINEERS	3	0	2	0	4	NIL	ECE	
3	19CY1004	ORGANIC ELECTRONICS	3	0	2	0	4	NIL	ECE	
<b>Total Credits</b>										8
<b>III ENGINEERING SCIENCES</b>										
1	20SC1101	COMPUTATIONAL THINKING FOR DESIGN	3	0	2	6	5.5	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	5.5
2	20SC1101	DESIGN TOOLS WORKSHOP - I	0	0	4	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
3	19SC1202	DATA STRUCTURES	3	0	2	3	4.75	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	4.75
4	19SC1209	DESIGN TOOLS WORKSHOP - II	0	0	4	0	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
5	20SC2205	DESIGN THROUGH VISUAL PROGRAMMING	1	0	0	4	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
6	19SC1203	OBJECT ORIENTED PROGRAMMING	3	0	2	3	4.75	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	4.75
7	20EC1101	DIGITAL LOGIC & PROCESSORS	3	0	2	0	4	NIL	AI & DS, CSE, COM ENGG, CSE/IT, ECE, EEE	4
8	19EC1202	COMPUTER ORGANIZATION & ARCHITECTURE	2	0	0	0	2	20EC1101	CSE, ECE, EEE, EEE	2
9	20EC1213	DESIGN OF BASIC ELECTRONIC CIRCUITS	3	0	0	0	3	NIL	ECE, COM ENGG	3
10	20EC2111	ELECTRONIC SYSTEM DESIGN WORKSHOP	1	0	2	2	2.5	NIL	ECE, COM ENGG	2.5
11	20EC2214	IoT Design Workshop	1	0	0	4	2	NIL	ECE	2
12	20EC2112	IT Workshop	1	0	2	0	2	NIL	ECE	2
<b>Total Credits</b>										34.5
<b>PROFESSIONAL CORE COURSES</b>										
1	19EC2103	ANALOG ELECTRONIC CIRCUIT DESIGN	3	0	2	2	4.5	NIL	ECE, ECE, EEE	4.5
2	19EC2104	COMMUNICATION SIGNALS & SYSTEM DESIGN	3	1	0	0	4	NIL	ECE	4
3	19EC2105	ANALOG AND DIGITAL COMMUNICATION	3	0	0	0	4.5	NIL	ECE	4.5
4	19EC2106	EMBEDDED CONTROLLERS	2	0	3	2	4	NIL	ECE, ECE, EEE	4
5	19EC2207	ELECTROMAGNETIC FIELDS & APPLICATIONS	3	1	0	0	4	NIL	ECE	4
6	19EC2208	DIGITAL SIGNAL PROCESSING	3	0	2	0	4	NIL	ECE	4
7	20EC2209A	STATISTICS, AI & ANN	3	0	0	2	3.5	NIL	ECE	3.5
8	20EC2209	AI, ANN TOOLS AND APPLICATIONS	3	0	0	0	3	NIL	ECE	
9	19EC2210	DATA NETWORKS AND PROTOCOLS	3	0	2	0	4	NIL	ECE	4
<b>Total Credits</b>										32.5
<b>SKILLING COURSES</b>										
1	20TS3101	Technical Proficiency / Entrepreneurial Incubation	0	0	0	12	3	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	3
2	20TS3202	Technical Proficiency / Technopreneurship	0	0	0	12	3	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	3
3	20TS4103	Technical Proficiency / Entrepreneurial Skilling	0	0	0	12	0	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	0
4	20TS4204	Technical Proficiency / Entrepreneurial Skilling	0	0	0	12	0	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	0
<b>Total Credits</b>										6
<b>TERM PAPER &amp; PROJECT</b>										
SNO	COURSE CODE	COURSE NAME	L	T	P	S	REBITS		OFFERED TO	
1	20IE2050	Social Internship	0	0	0	8	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
2	20IE3050	Technical Internship	0	0	0	8	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
3		Design Studio Elective	0	0	0	10	2.5	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2.5
4	20IE3150	MIDGRADE CAPSTONE PROJECT 1	0	0	0	8	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
5	20IE3250	MIDGRADE CAPSTONE PROJECT 2	0	0	0	8	2	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
6	20IE4150	CAPSTONE PROJECT 1	0	0	0	24	6	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	6
7	20IE4250	CAPSTONE PROJECT 2	0	0	0	24	6	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	6
8	19IE4050	PRACTICE SCHOOL	0	0	0	24	6	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	6
9	19IE4051	INTERNSHIP	0	0	0	24	6	NIL	BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	6
<b>Total Credits</b>										32.5
<b>FLEXI-CORE</b>										
1	FC-1	FLEXI-CORE-1					4		BT, CE, CSE, ECE, ECE, EEE, ME, PE	4
2	FC-2	FLEXI-CORE-2					4		BT, CE, CSE, ECE, ECE, EEE, ME, PE	4
3	FC-3	FLEXI-CORE-3					4		BT, CE, CSE, ECE, ECE, EEE, ME, PE	4
<b>Total Credits</b>										12
<b>OPEN ELECTIVES</b>										
1	OE-1	OPEN ELECTIVE-1	3	0	0	0	3	NIL	BT, CE, CSE, ECE, ECE, EEE, ME, PE	3
2	OE-2	OPEN ELECTIVE-2	3	0	0	0	3	NIL	BT, CE, CSE, ECE, ECE, EEE, ME, PE	3
<b>Total Credits</b>										6
<b>PROFESSIONAL ELECTIVES</b>										
1	PE-1	PROFESSIONAL ELECTIVE-1					3		BT, CE, CSE, ECE, ECE, EEE, ME, PE	3
2	PE-2	PROFESSIONAL ELECTIVE-2					3		BT, CE, CSE, ECE, ECE, EEE, ME, PE	3
3	PE-3	PROFESSIONAL ELECTIVE-3					3		BT, CE, CSE, ECE, ECE, EEE, ME, PE	3
4	PE-4	PROFESSIONAL ELECTIVE-4					3		BT, CE, CSE, ECE, ECE, EEE, ME, PE	3
5	PE-5	PROFESSIONAL ELECTIVE-5					3		BT, CE, CSE, ECE, ECE, EEE, ME, PE	3
6	PE-6	PROFESSIONAL ELECTIVE-6					3		ECE	3
<b>Total Credits</b>										18
<b>MANAGEMENT ELECTIVES</b>										
1		Modeling Business Systems	2	0	0	0	2		BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
2		Entrepreneurship Essentials	2	0	0	0	2		BT, CE, CSE, ECE, COM ENGG, EEE, ME, AI & DS, CS & IT	2
<b>Total Credits</b>										4
<b>Grand Total Credits</b>										171.0

S.No	Recommendations	Action taken	Name of the Programme	Department
<b>1. Students</b>				
1	Instead of conducting exam, real time learning by field trip and necessary visualization while learning knowledge, design and innovation through open electives and outcomes is necessary.	a. Two courses titled Design Thinking & Innovation -1 , Design Thinking & Innovation -2 are added to the curriculam for 2019-20 & 2020-21 batch students; b. Design Thinking and Innovation Lab is established	B.Tech - ECE	Electronics and Communication Engineering
2	Need more practical approach	More contact hours are assigned to lab and skilling components to all core courses, more contact hours to skilling and the same has been reflected in course structure	B.Tech - ECE	Electronics and Communication Engineering
3	Coding must be included in six semester	Technical skilling courses are offered in ever semester till semester-7, as mentioned in the course structure,	B.Tech - ECE	Electronics and Communication Engineering
4	Keeping all core subjects like control systems, embeded systes in 4th year is not good as the students are busy with placement and gate.	The course structure is planned such way that all the core courses will be complete by the end of semester-4.	B.Tech - ECE	Electronics and Communication Engineering
5	Add extra computer science courses such as database can be included into the curriculum.	We are offered three specializations Cyber security, UX design, AI&ML from CSE department.	B.Tech - ECE	Electronics and Communication Engineering
6	There should be subjects related to real life application are needed.	All flexi core courses are design based on the real life applications. Ex: Biomedical Electronics & IOT for Healthcare	B.Tech - ECE	Electronics and Communication Engineering
7	Practicals should be more related to real life applications.	Design/project based lab are designed and conducted.	B.Tech - ECE	Electronics and Communication Engineering
8	Need more in-depth concepts and interlinking of all concepts learnt in previous semesters.	New courses are offered under nine specializations with an emphasis on current technologies and thrust areas with a pre-requisite knowledge of core courses.	B.Tech - ECE	Electronics and Communication Engineering
<b>2. Parents</b>				
1	Hands on experience should be provided for the students.	More hours are alloted for practicles and skilling components in the courses structure.	B.Tech - ECE	Electronics and Communication Engineering
2	Curriculum should be modified by adding the advanced concepts related to industry.	New specialization are introduced as per the requirement of industry and the following are the list of sub-streams newly added ESS1: IOTs & Smart Cities ESS3: Robotics & Automation ESS5: Wireless Communication ESS6: Data Networks ESS7: RF & Microwave ESS8: Data Computing ESS9: Biomedical Instrumentation	B.Tech - ECE	Electronics and Communication Engineering
<b>3. Alumni</b>				
1	New courses on automation can be included.	A new course in the VLSI automation is included in the VLSI sub-stream.	B.Tech - ECE	Electronics and Communication Engineering
2	Skilling courses on tools required for industry can be included.	Skilling courses are offered based on the specializations.	B.Tech - ECE	Electronics and Communication Engineering
<b>4. Faculty</b>				
1	Information Theory and Coding 1. Theory of source coding and channel coding is covered but should be taught more in algorithmic perspective 2. CO1,2 covered source coding and CO3,4 covered channel coding, regarding the overall data communication from source symbol to data bits generated after channel coding should be illustrated in depth 3. ECE students and also communication stream students of CSE 4. No lab component 5. Lab component also to be added	Lab components not assigned to professional elective courses. Necessary changes to the coures will be considered for next BOS.	B.Tech - ECE	Electronics and Communication Engineering
2	4G WIRELESS TECHNOLOGIES AND CELLULAR COMMUNICATIONS 1. To meet industry requirement some more topics should be added 2. Some topics are not in a particular sequence 3. For CSE this subject is bit advanced, a lab/skilling on models would have helped them.	Lab components not assigned to professional elective courses. Necessary changes to the coures will be considered for next BOS.	B.Tech - ECE	Electronics and Communication Engineering
3	INTRODUCTION TO AI &ANN AND TOOLS & APPLICATIONS 1. IF POSSIBLE , WE CAN INCLUDE THE LAB COMPONENTS	Skilling component is added to the advanced version of the course.	B.Tech - ECE	Electronics and Communication Engineering
<b>5. Academic Peers</b>				
1	Suggested to have course on Deep Learning with AI as elective course for M. Tech programs.	Deep learning with artificial intelligence is included as an elective of both M. Tech VLSI and M. Tech RC	B.Tech - ECE	Electronics and Communication Engineering
2	Suggested to have Machine Learning or Artificial Intelligence as common elective courses for M. Tech programs.	Deep learning with artificial intelligence is included as an elective of both M. Tech VLSI and M. Tech RC	B.Tech - ECE	Electronics and Communication Engineering
<b>6. Industry</b>				
1	Advanced topics on signal processing can be included with an emphasis on bio-medical image and signal analysis.	New professional electives Bio-medical image analysis, Bio-medical signal processing courses are offered under signal processing specialization.	B.Tech - ECE	Electronics and Communication Engineering
2	Courses on current thrust areas like automation, IOT and 5G communications can be offered.	New professional electives are offered under specialiazations IOT & Smart Cities, Data Communications and Robotics and Automation.	B.Tech - ECE	Electronics and Communication Engineering

**Koneru Lakshmaiah Education Foundation**  
**Department of Electronics and Communication Engineering**  
**Certificate courses list**

Sno	Specialization	Course Title	Category	Institute/Industry	MoU with Industr	Training Fee		Certification (Inc. of Tax)	Total	
						Payable to company with Taxes	Payable to KL			
1		NI CLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
2	IOT	IoT using Raspberry Pi	Employability	NIELIT	Nil	NA	NA	NA	1000	1000
3		Microsoft Certified: Azure IoT Developer Specialty	Career	Microsoft	Nil	NA	NA	NA	12000	12000
4		CDAC-Certificate course in IoT	Entrepreneurship	CDAC	Nil	NA	NA	NA	25000	25000
5		IoT Analytics & Data Sciences	Employability	Entuple	Nil	2339+18% tax=2760	1000	3760	1250+GST 18%	3760
6		Advanced TOT Analytics with Machine Learning	Employability	Entuple	Nil	2678+18% tax=3160	1000	4160		5635
7			NI CLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%
8	Renewable Energy and Smart Cities	Smart Cities – Management of Smart Urban Infrastructures	Employability	Edx	YES	NA	NA	NA	3604	3604
9		NI CLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
10	VLSI	Verification using system verilog	Employability	Entuple	Nil	2136+18% tax =2520	1000	3520	1250+GST 18%	3520
11		Fundamentals of UVM	Employability, Career	Entuple	Nil	2542+18% tax = 3000	1000	4000		5475
12		Synthesis and Timing analysis	Employability	Entuple	Nil	2271+18% tax = 2680	1000	3680	1250+GST 18%	3680
13		Physical Design and Verification	Employability, Entrepreneurship	Entuple	Nil	2678+18% tax = 3160	1000	4160		5635
14		CMOS Analog Circuit & Layout Design	Employability	Entuple	Nil	2203+18% tax = 2600	1000	3600	1250+GST 18%	3600

15	Electronic circuit & Analog Layout Design	Employability, Entrepreneurship	Entuple	Nil	2475+18% tax = 2925	1000	3920		5395
16	CMOS Digital VLSI Design	Employability, Entrepreneurship	NPTEL	Nil	NA	NA	NA	1500	1500
17	Microelectronics: Devices to Circuits	Employability	NPTEL	Nil	NA	NA	NA	1500	1500
18	Learn Six Sigma	Entrepreneurship	Simplilearn	YES	NA	NA	NA	6500	6500
19	NICLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
20	Real world Robotic Operating Systems	Employability	Edx	YES	NA	NA	NA	3678	3678
21	RPA, AI, and Cognitive Tech for Leaders	Employability	Linkedin	Nil	NA	NA	NA	1357	1357
22	MATLAB for data processing and visualization - Mathworks	Employability	Mathworks	Nil	NA	NA	NA	3000	3000
23	Artificial Intelligence Engineer	Employability	Simplilearn	YES	NA	NA	NA	6500	6500
24	Data Science: Machine Learning	Career	Edx		NA	NA	NA	3667	3667
25	Learn Six Sigma	Entrepreneurship	Simplilearn	YES	NA	NA	NA	6500	6500
26	NICLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
27	MATLAB for data processing and visualization - Mathworks	Employability	Mathworks	Nil	NA	NA	NA	3000	3000
28	Analyzing Data with Python	Employability	Edx	YES	NA	NA	NA	2800	2800
29	Machine Learning using python	Employability	NIELIT		NA	NA	NA	1000	1000
30	Data Science Tools	Career	Edx	YES	NA	NA	NA	2800	2800
31	Foundations of data science	Career	PADHAI	Nil	NA	NA	NA	1180	1180
32	NICLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
33	RF Systems-Modelling, Design and Simulation	Employability	Entuple	Nil	2000+18% = 2360	1000	3360	1250+GST 18%	3360
34	Fabrication, Testing and Validation	Employability	Entuple	Nil	2678+18% = 3160	1000	4160		5635
35	RF and Antenna Design	Employability	NPTEL	Nil	NA	NA	NA	1500	1500

36	Design Principles of RF and Microwave Filters and Amplifiers	Employability, Career, Entrepreneurship	NPTel	Nil	NA	NA	NA	1500	1500
37	RF Integrated Circuits	Entrepreneurship	NPTel	Nil	NA	NA	1500	1500	1500
38	NICLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
39	Introduction to Wireless and Cellular Communications	Employability	NPTel	Nil	NA	NA	1500	1500	1500
40	HClA-5G	Career	HUWAI	YES	NA	NA	1500	NA	1500
41	End-to-End 5G Associate	Employability, Entrepreneurship	HUWAI	YES	NA	NA	1500	NA	1500
42	NICLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
43	Fundamentals of Biomedical Imaging: Ultrasounds, X-ray, positron emission tomography (PET) and applications	Employability	Edx	YES	NA	NA	NA	12000	12000
44	Fundamentals of Neuroscience	Career	Edx	YES	NA	NA	NA	7300	7300
45	Introduction to Bioconductor	Career	Edx	YES	NA	NA	NA	10000	10000
46	NICLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
47	HClA-R&S	Employability, Career	HUWAI	YES	NA	NA	NA	1500	1500
48	DATA SCIENCE - Artificial Intelligence	Employability, Career	HUWAI	YES	NA	NA	NA	1500	1500
49	Data networks and protocols - Routing and Switching	Employability, Entrepreneurship	HUWAI	YES	NA	NA	NA	1500	1500
50	ANN, CNN, AI -	Employability, Entrepreneurship	HUWAI	YES	NA	NA	NA	1500	1500

51	Cyber Security & Block Chain Technology	NICLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	NA	NA	1500	2000+GST 18%	3860
52		COE Program in Cyber Security/Network Security Associate/ Network Security Professional	Employability, Entrepreneurship	Bytex	YES	6500 +18% =7670	1000	8670	FREE	8670
53	Data science & Big Data Analytics	NICLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	NA	NA	1500	2000+GST 18%	3860
54		HCIA-AI	Employability	HUWAI	YES	NA	NA	1500	NA	1500
55	Data Science - Artificial Intelligence	ANN, AI, DATA SCIENCE , VOICE OVER IP AND PROCTORS	Employability, Career	HUWAI	YES	NA	NA	1500	NA	1500
56		ANN, CNN, AI -	Employability, Career, Entrepreneurship	HUWAI	YES	NA	NA	1500	NA	1500
57	NI CLAD	ANN, CNN, AI -	Employability/Ent.	HUWAI	YES	NA	NA	1500	NA	1500
58		NI CLAD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	2000+GST 18%	3860
59	NI CLAD	CLD	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	5000+GST 18%	7400
60		CLA	Employability, Career, Entrepreneurship	National Ins.(NI)	YES	800	700	1500	6000+GST 18%	8580



Certificate Course Incharge

**Dr. M. SUMAN**  
 Professor & Head  
 Department of ECE  
**KHODE F**  
 Green Fields, Vaddeswaram  
 Guntur Dist., A.P. PIN: 522 502



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Board of Studies Meeting – 18**

Time: 1.30 PM

Venue: Online WebEx Session

24<sup>th</sup> June 2020

**Minutes of the meeting**

**Agenda items:**

<b>1.</b>	<b>First year course structure for B. Tech 2020-21 batch.</b> <b>Resolution/suggestions:</b> It is resolved to adopt 2019-20 course structure with design orientation. Members suggested to adopt the AY 2019-20 curriculum and courses in the I Year for AY 2020-21 as well.
<b>2. a</b>	<b>To approve the course structure of M. Tech program: RADAR &amp; Communication</b> <b>Resolution/suggestions:</b> It is resolved to have discussions on the modified course structure for 2020-21 and will be approved in POST BOS meeting. Valuable inputs from the internal and external experts have been taken towards revamping the entire M. Tech programs. All the external members suggested to include a mathematics course into the program. External members suggested to modify titles of few courses.
<b>2. b</b>	<b>To approve the course structure of M. Tech program: VLSI Design</b> <b>Resolution/suggestions:</b> It is resolved to have discussions on the modified course structure for 2020-21 and will be approved in POST BOS meeting. Valuable inputs from the internal and external experts have been taken towards revamping the entire M. Tech programs. Members have suggested to add VLSI Signal Processing course in the core course instead of elective course. All the external members suggested to have Deep learning with Artificial Intelligence as common elective course for all M. Tech specializations.
<b>3.</b>	<b>Inclusion of new chemistry course under basic science elective.</b> <b>Resolution/suggestions:</b> It is resolved to offer 3 science elective courses. 1. Engineering Chemistry. 2. Chemistry and Bioinformatics for Engineers. 3. Organic Electronics.

Department Chair

**M. SUMAN**  
Professor & Head  
Department of ECE  
KLEF  
Fields, Vaddeswara  
A.P. PIN: 522 501





**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Other suggestions:**

1. Dr. Anil Kumar suggested to have Machine Learning or Artificial Intelligence as common elective courses for M. Tech programs.
2. Dr. Kishore Kumar suggested to review the titles of science electives.
3. Dr. Subba Rao suggested to have course on Deep Learning with AI as elective course for M. Tech programs.
4. Mr. Visweswaran J, suggested to have 2 credit mathematic course with for M. Tech RADAR & Communications
5. Suggested to develop M. Tech course structure in accordance with AICTE guidelines.
6. Dr. Anil Kumar suggested to have course codes according to the level of the course.

The resolutions of BOS meeting are forwarded to Academic Council for approval.

**Department Chair**

**Dr. M. SUMAN**  
Professor & Head  
Department of ECE  
KLEF  
Green Fields, Vaddeswaram  
Guntur District, Andhra Pradesh 522 500  
**BOS Chair, BOD ECE**  
Green Fields, Vaddeswaram  
Guntur District, Andhra Pradesh 522 500



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**KLEF  
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.  
BOARD OF STUDIES MEETING**

**DATE: 24-06-2020**

**TIME: 01.30 PM**

S. No	Name of the Faculty	Designation
1	Dr. M. Suman, Professor & HOD	BOS Chair
2	Dr. Vinay Kumar Mittal, Professor & Dept. Chair	Member
3	Dr. L. Koteswara Rao, Professor & HOD-ECE, KLH	Member
4	Dr. V. Anil Kumar, Asst. Professor, IIIT Hyderabad	External Member
5	T. Kishore Kumar, Professor, NIT Warangal	External Member
6	Dr. Habibullah Khan, Professor & Dean Student Affairs	Member
7	Dr. V Rajesh, Professor & Dean P & D,	Member
8	Dr. K.Sarat Kumar, Professor	Member
9	Dr. A.S.C.S.Sastry, Professor & COE	Member
10	Dr. K.Ch.Sri Kavya, Professor	Member
11	Dr. M Venkata Narayana, Professor & DHOD	Member
12	Dr. Madhukar Deshmukh, Professor & DHOD	Member
13	Dr. Lakshman Pappula, Assoc. Professor & DHOD	Member
14	Dr. I.Govardhani, Professor & RPAC	Member
15	Dr. M.Siva Ganga Prasad, Professor & HOD ECM	Member
16	Dr. P. Satya Srinivas Babu, Professor	Member
17	Dr. P Satyanarayana, Professor	Member
18	Dr. P V V Kishore, Professor	Member
19	Dr. M Sridhar, Professor	Member
20	Dr. S Koteswara rao, Professor	Member
21	Dr. G V Subbarao, Professor & RPAC	Member
22	Dr. M Venugopal Rao Professor & Assoc. Dean IQAC	Member
23	Dr. B T P Madhav, Professor & Assoc. Dean R&D	Member
24	Dr. D Venkat Ratnam, Professor	Member
25	Dr. K Srinivas Rao, Professor	Member
26	Dr. K Kumar Naik, Professor	Member
27	Dr. V. S. V. Prabhakar, Professor & Director IC	Member
28	Dr. T.V.Rama Krishna, Professor & Director (E-resources)	Member
29	Dr. K.S.Ramesh, Professor	Member
30	Dr. K.Hari Kishore, Professor & Assoc. Dean	Member
31	Dr. Md.Z Rehman, Professor	Member
32	Dr. P.Pardhasaradhi, Professor	Member

**Department Chair**

**DR. M. SUMAN**  
Professor & Head  
Department of ECE  
BOS Chair, HOD ECE  
Green Hills, Guntur Dist., A.P. 522 202  
12



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

33	Dr. B.Polaiah, Professor	Member
34	Dr. Fazal Noorbasha, Assoc. Professor & Assoc. Dean	Member
35	Dr. G. Naveen Kishore, Assoc. Professor	Member
36	Dr. M. Ravi Kumar, Assoc. Professor	Member
37	Dr. M. Goutham, Asst. Professor, ECE, KLH	Member
<b>Special Invitees</b>		
1	Dr. N VenkatRam, Professor & Dean Academics	Special Invitee
4	Dr. M R Narasinga Rao, Professor, CSE	Special Invitee
5	Dr. Kalyan Chakravarthy, Professor, Mech	Special Invitee
6	Dr. J Somlal, Professor, EEE	Special Invitee
7	Dr. V S Bhagavan, Professor, Mathematics	Special Invitee
8	Dr. M. Venkateswarlu, Asst. Professor, Physics	Special Invitee
9	Dr. K Giridhar, Assoc. Professor, Biotechnology	Special Invitee
10	Dr. B Siva Nagaiah, Assoc. Professor, English	Special Invitee
11	Dr. Bindu Madhavi Narayanam, Asst. Professor, MBA	Special Invitee
12	Dr. V Shanmukha Kumar, Professor, Chemistry	Special Invitee
13	Dr. Sai Krishna Santosh G, Assoc. Professor, ECE Dept.	Special Invitee
14	Mr. K. Sripath Roy Asst. Professor & Assoc. Dean, ECE Dept.	Special Invitee
15	Dr. C. Sandeep Reddy, Asst. Professor, ECE, KLH	Special Invitee
<b>Industry Experts</b>		
1	Dr. Subba Rao, Head Budget, P&M division, NRSC, Bengaluru	Special Invitee
2	Mr. Visweswaran Jagadeesan, National Instruments, Bengaluru	Special Invitee
3	Mr. EBSV Charan, Lead RF, Honeywell, Hyderabad	Special Invitee

**Report- Analysis of Feedback on curriculum – received from the stake holders  
prior to the commencement of the Academic Year 2020-21**

Feedback from different stake holders has been collected in respect of the curriculum offered for the academic year 2021-20

Serial Number	Type of Stake holder	Number of feedbacks
1	Students	1009
2	Parents	89
3	Alumni	4
4	Faculty	87
5	Academic peers	2
6	Industry persons	2
<b>Total</b>		<b>1193</b>

Serial Number	Recommendations	Action Taken
1. Student		
1	Please change the subjects and keep them in proper order for 1-1 to 4-2 so everyone can keep more concentration and increase lab equipment and keep them in good condition.	Proper structure already been framed from Y17 regulation
2	It is difficult to study 3 core subjects with project work.	Partially considered
3	Needed more practical approach	Project based course deliver from upcoming semester.
4	Make PPT with Examples in Video Type...Give Lecture in Projector what happening in world. Teach For Knowledge not for Mark's....Provide some Books which help Imagination	Considered and instructions are provided to respective course coordinators.
5	According to me, students who write gate suffer in their rank if they are in non-crt due to work load in the last semester and also parts of gate syllabus being covered in last semester in college. Both crt and non crt students could have had core subjects in the same semester that is 7th semester and then relaxation in the 8th semester equally for both so as to be able to cover the subjects and also be free of work load and prepare well for competitive exams like gate,gre etc.	Similar course structure is approved for Y17, Y18 and Y19 regulations. Load balancing is taken care in course structure.
6	Very good infrastructure in labs but no practical seriousness in guiding the students towards subject knowledge	BOS Chair instructed the respective course coordinators to conduct laboratories effectively.
7	Everything regarding the academics is fine sir but while conducting semester exam online the biggest challenge we face is internet connectivity as we are living in the 21st century everyone	Partially consider.

	is able to access to internet but the major problem students are raising is the poor internet connection. We can overcome this problem if you are able to provide a 15 min of buffer time for the students to submit the written copies and I personally recommend a mock test for us sir so that the students will get out of the assumptions they have regarding the test and complete it fruitfully.	
8	Syllabus is Ok,But i think if the syllabus is to reduce for core subjects is better to score more time is less to prepare for test-1 exams at a time we have to prepare for both two cos and after same process for test-2 also we have to recollect all at the end- sem but i think it was not able to remain all the topics we have to prepare both cos at a time for the exam. Now I'm 4-2 as my academic year is over but my review can help to up coming Jr's.	Syllabus revision is already been carried out in previous BOS meeting.
9	Coding must be included in 6 semesters	Considered, the classes are being conducted for interested students.
10	Dont give many projects for every course . Give them a try to make projects for every 2 semesters from combining all the courses covered in 2sems and give them some time to get ideas and help them to create their idea in real time, for every 2sems.	Consider, Project based course deliver from upcoming semester, where students will do one project per semester
11	Syllabus has to be practical oriented and student centric	Considered and designed the courses and course structure accordingly that has been approved in previous BOS.
12	Keeping all core subjects like control systems embedded systems in 4 th year is not good as we guys are busy in placement preparations and gate exams and keeping skilling subjects in 2 nd year is not good try too keep skilling in 3-2 and 4-1 which will help us to prepare for placement and other gre and gate exams	Consider and the necessary action has been taken in previous BOS. The course structure has been up to date from Y17 regulation onwards.
13	Need to improve the time given to complete the course and need to increase the lab experiments of flexi core courses	Consider and project based course delivery will be carried out for flexi core courses.
14	Honestly the entire courses are fast paced making them rather difficult to learn instead of interest to learn. The lack of hands-on for some courses and fast paced packed up syllabus make a complete disaster for learners. Need more practical and useful courses	Consider and more priority is given to laboratory and practical applications.
15	Practical should be more related to real life application. Student should be given the option either to do regular lab work designed in the course or do a SINGLE real time project for the entire semester that include using of technologies being taught in that semester. One of the best examples could be Electrothon.	BOS Agenda Item: 4, project based delivery.
16	Syllabus need not to be changed but we want all subjects to be done practical(labs). I need more in-depth concepts and interlinking of all concepts learnt in all previous 5 semesters that are relatable	BOS Agenda Item: 4, project based delivery for all lab based courses including flexi core courses.
2. Parents		
1	Curriculum should be modified by adding the advanced concepts related to industry.	Will be considered for next curriculum revision.
2	The knowledge in the core courses should be enhanced.	Will be considered for next curriculum revision.
3. Alumni		
1	Current technologies are to be included for PG programs also.	BOS Agenda Item:2
2	Topics such as internet of things and fabrication technology can be included in the curriculum.	Will be considered for next BOS meeting.

4. Faculty		
1.	<b>Information Theory and Coding</b> <ol style="list-style-type: none"> <li>Theory of source coding and channel coding is covered but should be taught more in algorithmic perspective</li> <li>CO1,2 covered source coding and CO3,4 covered channel coding. regarding the overall data communication from source symbol to data bits generated after channel coding should be illustrated in depth</li> <li>ECE students and also communication stream students of CSE</li> <li>No lab component</li> <li>Lab component also to be added</li> </ol>	Partially Considered and instructed to the course coordinators to do necessary modifications for the next BOS meeting.
2.	<b>Wireless Communications</b> <ol style="list-style-type: none"> <li>Establishment of Lab concern to the Course not Sufficient.</li> <li>More Courses to be designed to meet existing Challenges&amp; how best we derive Opportunities for real-time applications.</li> </ol>	CC's are instructed to come up with plan of action for lab development.
3.	<b>Digital Signal Processing</b> <ol style="list-style-type: none"> <li>NO LTP structure since it is coursera subject</li> <li>Coursera DSP course is very good, but quiz solutions are available in the internet. Students have not learned the subject. They got the course completion certificate with more than 90% aggregate, but knowledge is poor in the subject.</li> </ol>	Considered and regular In-sem and end-sem exams will be conducted from next semester.
4.	<b>4G WIRELESS TECHNOLOGIES AND CELLULAR COMMUNICATIONS</b> <ol style="list-style-type: none"> <li>To meet industry requirement some more topics should be added</li> <li>Some topics are not in a particular sequence</li> </ol>	Partially Considered and instructed to the course coordinators to do necessary modifications for the next BOS meeting.
5.	<b>LPVLSI</b> <ol style="list-style-type: none"> <li>The syllabus framed was at the level of M.Tech which is difficult for the students to grasp it.</li> <li>The syllabus is framed related to research where hands on is required for the better understanding of the course content</li> <li>Syllabus has to be modified as per B.Tech level</li> </ol>	Partially Considered and instructed to the course coordinators to do necessary modifications for the next BOS meeting.
6.	<b>Video Surveillance</b> <ol style="list-style-type: none"> <li>content should be through experimental (Case studies)</li> <li>Skilling is required</li> <li>course should be learnt through the experimental</li> </ol>	Not considered as the course is a professional elective course.
7.	<b>Basic Electronics and Circuits</b> <ol style="list-style-type: none"> <li>Need more elaborate content to be included</li> <li>Don't include this course as online course. It's difficult for students to learn. It's basement for all electronics and electrical branch.</li> </ol>	Partially Considered.
8.	<b>VLSI Design</b> <ol style="list-style-type: none"> <li>My course is good need to have a lab</li> </ol>	VLSI design course is offered as professional elective in one semester and as a flexi core course in another. The student has given the flexibility to study on his interest.
9.	<b>EMFA</b> <ol style="list-style-type: none"> <li>NO lab attached to this particular course</li> <li>CO3 and CO4 of syllabus is vague and vast .may be improved in future. Co1 does not include mathematics pre requisite.</li> <li>Instead of accommodating some applications in 3rd competency, it'll be good if we cover the untouched areas of</li> </ol>	Partially consider and instructed to the course coordinators to do necessary modifications for the next BOS meeting.

	<p>the subject. Similarly in the 4th competency instead of teaching the outline of the concepts, which are anyhow can be covered at a later stage as part of electives, it'll be more apt if Transmission lines &amp; wave guides is taught ( as these topics are not included anywhere at later subjects)</p> <ol style="list-style-type: none"> <li>4. I feel this RF stream can be further strengthened</li> <li>5. No.of credits for this course shall be improved</li> <li>6. Good but syllabus has to be further upgraded so that the student can be trained to meet the requirements in the RF domain</li> </ol> <p>CO1 is very big topic. CO1 can be divided into 2 CO's and other 3 CO's can be combined and made it to 2 CO's</p>	
10.	<p><b>Computer Organization &amp; Architecture</b> COA needs at least 3-0-0 as L-T-P Structure</p>	Consider and will be discussed in next BOS.
11.	<p><b>INTRODUCTION TO AI &amp;ANN AND TOOLS &amp; APPLICATIONS</b></p> <ol style="list-style-type: none"> <li>1. IF POSSIBLE , WE CAN INCLUDE THE LAB COMPONENTS</li> <li>2. NEED TO BE ADD LAB COMPONENTS (;LAB EXPERIMENTS)</li> </ol>	Consider and will be discussed in next BOS.





**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
DEPARTMENT ACADEMIC COMMITTEE MEETING**

**Venue: R101**

**Time: 10AM**

**23<sup>th</sup> June 2020**

**Minutes of the meeting**

1. Proposals and modifications in current M. Tech programs (Radar Communications & VLSI) are forwarded to BOS for discussion.

Suggestions:

- i. Inclusion of project based skilling/capstone project for M. Tech Radar & Communications Program.
- ii. Dr. Sarat Kumar suggested to modify the title 'Space Technology & Data Science' for the M. Tech program.
- iii. Skilling courses must be designed with capstone project/ industry training orientation.

2. The syllabus of science elective courses offered from dept. of chemistry. (Engineering Chemistry, Chemistry and Bioinformatics for Engineers & Organic Electronics) are forwarded to BOS.

Suggestions:

- i. Dr. Sarat Kumar suggested for the inclusion of few topics on nanomaterials and food technology concepts in Organic Electronics course.

3. Consolidate feedback report from stake holder in previous semester has been analyzed and few suggestions are provided for effective course delivery.

Suggestions:

- i. Instructions are given to course coordinators and course instructors to implement project based learning.
- ii. HOD instructed all the members to ensure the effective conduction of laboratory.

4. Project based course delivery for upcoming semester.

5. Other academic related issue with discretion of the chair.

- a. Project based learning
- b. Teaching learning process
- c. Preparation of lesson plan
- d. Conduction of laboratory sessions

The modified course structure of M. Tech programs and structural changes are forwarded to BOS for approval.

**Dept. Chair ECE**

**HOD, ECE**



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Department of Electronics and Communication Engineering**

**Department Academic Committee Meeting**

**19<sup>th</sup> May 2021**

**Time: 10 AM**

**Online WebEx Meeting**

**Reporting items**

- a. Faculty certifications, achievements, recognitions, and awards
- b. Placement status for Y17

**Agenda Points:**

1. Approval of course structures of M. Tech programs
2. Approval of I Year course structure
3. Two course codes for the internship offered in final odd semester and even semester.
4. Approval of pre-PhD courses
5. QP mapping of NSDC skills
6. Modifications and up-gradation of courses offered under Y19 & Y18 regulations.
7. Discussion on student and faculty feedback (Stake holder's feedback)

**Minutes of the meeting**

1. HOD has presented the faculty awards, various research activities conducted during the AY 2020-21 and the current placement status.
2. All DAC members approved the introduction of new B. Tech programs offered under ECE.
  - a. B. Tech in Internet of Things
  - b. B. Tech in Automation & Robotics
3. All DAC members approved the course structures of new M. Tech programs offered under ECE along with existing programs (M. Tech RADAR & Communication, M. Tech VLSI)
  - a. M. Tech in Robotics & Automation
  - b. M. Tech in IoT
4. DAC members agreed to have two course codes for internship offered during the final year odd and even semesters and forwarded for BoS for approval.
5. All members accepted the inclusion of new courses for pre-PhD examinations and the Dept. Chair recommended to relook into the course offered in other areas of specializations.
6. As per the suggestion of Dean Skilling, NSDC skill set has been identified and mapped to the courses offered under the ECE and the members approved the mapping of QP skill set.
7. The members approved the minor syllabus, CO modifications in courses 19EC3084, 19EC3052 and 19EC3022. Also approved the syllabus change of 19EC2106 and to be offered as 20EC2106 with LTPS 3022 instead 2033 for Y20 regulation. The recommended changes are forwarded to BoS for approval.
8. Stake holder's feedback is discussed at length for the enhancement of curriculum and teaching learning process.

**Dr. M. N. N. N. N.**  
Professor  
Dept. **HOD, ECE**

Green Fields, Venkateswaram  
Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Department of Electronics and Communication Engineering**

**Board of Studies Meeting – 21**

Time: 05.45PM

Venue: Online WebEx

20<sup>th</sup> May 2021

**Minutes of the meeting**

**Reporting items:**

**[Annexure-I]**

1.	42 faculty members have completed Huawei HCIA AI global certification. Out of which 26 faculty members have received the certificates.
2.	Faculty achievements, recognitions, and awards.
3.	Current placement status of Y17 admitted students.
4.	Applied for AICTE approval for decrease in in-take of B. Tech ECE from 600 to 360.
5.	Applied for AICTE approval of new B. Tech IoT, M. Tech IoT and M. Tech Robotics & Automation.

**Agenda items:**

1.	<b>To approve the course structures of M. Tech programs.</b> <ul style="list-style-type: none"><li>• M. Tech IoT</li><li>• M. Tech Robotics &amp; Automation</li><li>• M. Tech RADAR &amp; Communication</li><li>• M. Tech VLSI</li></ul> <b>Resolution/suggestions:</b> <ul style="list-style-type: none"><li>• It is resolved to approve the course structures of new M. Tech programs offered.<ul style="list-style-type: none"><li>✓ M. Tech IoT</li><li>✓ M. Tech Robotics &amp; Automation</li></ul></li><li>• It is resolved to approve the modified course structures of existing M. Tech programs.<ul style="list-style-type: none"><li>✓ M. Tech RADAR &amp; Communication</li><li>✓ M. Tech VLSI</li></ul></li></ul> <p style="text-align: right;"><b>[Annexure-II]</b></p>
2.	<b>To approve I Year course structure for AY 2021-22 admitted batch.</b> <b>Resolution/suggestions:</b> <ul style="list-style-type: none"><li>• It is resolved and approved to follow the course structure of 2020-21 batch.</li></ul> <p style="text-align: right;"><b>[Annexure-III]</b></p>
3.	<b>To include the course codes for internship, which will be offered during odd and even semesters of final year (Y18 batch).</b> <b>Resolution/suggestions:</b>

BOS Chair, ECE

**Dr. NEUMAN**  
Professor & Head  
Department of ECE  
KLER  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

	<ul style="list-style-type: none"><li>All the committee members have been informed about the inclusion of the course codes for internship which will be offered during odd and even semesters of final year (Y18 batch).</li></ul> <table border="1"><thead><tr><th>COURSE CODE</th><th>COURSE NAME</th><th>L</th><th>T</th><th>P</th><th>S</th><th>CRE DITS</th></tr></thead><tbody><tr><td>18IE4050</td><td>PRACTICE SCHOOL</td><td>0</td><td>0</td><td>0</td><td>24</td><td>6</td></tr><tr><td>18IE4051</td><td>INTERNSHIP-1</td><td>0</td><td>0</td><td>0</td><td>24</td><td>6</td></tr><tr><td>18IE4052</td><td>INTERNSHIP-2</td><td>0</td><td>0</td><td>0</td><td>24</td><td>6</td></tr></tbody></table>	COURSE CODE	COURSE NAME	L	T	P	S	CRE DITS	18IE4050	PRACTICE SCHOOL	0	0	0	24	6	18IE4051	INTERNSHIP-1	0	0	0	24	6	18IE4052	INTERNSHIP-2	0	0	0	24	6
COURSE CODE	COURSE NAME	L	T	P	S	CRE DITS																							
18IE4050	PRACTICE SCHOOL	0	0	0	24	6																							
18IE4051	INTERNSHIP-1	0	0	0	24	6																							
18IE4052	INTERNSHIP-2	0	0	0	24	6																							
4.	<p><b>Approval of pre-PhD courses.</b></p> <p><b>Resolution/suggestions:</b></p> <ul style="list-style-type: none"><li>As per the suggestions from Dr. Vinay Kumar Mittal, Department chair, and Dr. Venkat Ratnam, Head Research, as decided to relook into the courses and submit the same within two weeks.</li><li>All the committee members have accepted to include new courses for pre-PhD examination.</li></ul>																												
5.	<p><b>QP Mapping of NSDC skills.</b></p> <p><b>Resolution/suggestions:</b></p> <ul style="list-style-type: none"><li>As per the suggestions from Dean skilling NSDC skill set has been identified and mapped with the courses offered under ECE for the Odd Semester AY 2021-22.</li><li>The skill set is also mapped with the various job profiles.</li></ul> <p style="text-align: right;">[Annexure-IV]</p>																												
6.	<p><b>Modification and up gradation of courses under Y19&amp; Y18 regulation.</b></p> <p><b>Resolution/suggestions: All the members approved the modifications forwarded by DAC</b></p> <ul style="list-style-type: none"><li>The course 19EC2106 Embedded controllers with LTPS: 2-0-3-2 has been modified as 20EC2106 Embedded Controllers &amp; Embedded Systems Design with LTPS: 3-0-2-2.</li><li>19EC3084 Statistical Signal Processing, course outcomes have been updated with a pre-requisite of 19EC2208 Digital Signal Processing.</li><li>The 19EC3052-Solar Photovoltaic Cells &amp; Solar Power Arrays syllabus has been updated.</li><li>19EC3022 ADVANCE COURSE IN SOFT-COMPUTING (AI, ANN, FUZZY LOGIC &amp; GENETIC ALGORITHMS) syllabus has been updated.</li></ul> <p style="text-align: right;">Syllabus modifications are mentioned in <b>Annexure-V</b></p>																												

**Other Suggestions:**

- BoS chairman, suggested the Head Coordinator to re-look into the courses offered under professional electives of M. Tech Robotics & Automation.

**BOS Chair, ECE**

**Dr. M. SUMAN**  
Professor & Head  
Department of ECE

Green Fields, Maddurwaram  
Guntur Dist., A.P. Pin: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Annexure-I**

1. 42 faculty members have completed Huawei HCIA AI global certification. Out of which 26 faculty members have received the certificates.

1	1181	Dr.M.Ravikumar
2	1286	Dr.S.Nagendram
3	2221	Dr.Murali Krishna Bopanna
4	2224	Dr.G.Venkata Ganesh
5	2469	Dr.M.Sridhar
6	2812	Dr.MVD PRASAD
7	2922	Dr.Venu Gopala Rao Matcha
8	2978	Dr.D.Bhavana
9	2980	SUBBA REDDY VASIPALLI
10	3011	K.Sony
11	3028	N.Durga Indira
12	3066	Dr.SiddaiahNalluri
13	3452	Dr.P V V Kishore
14	3621	Dr.P.PARDHA SARADHI
15	4173	Dr.Katta Rajesh Babu
16	4263	Ms.V.Sahithi
17	4387	Dr.B.Polaiah
18	4818	ALI BAIG MOHAMMAD
19	4858	Dr.Lakshman Pappula
20	4975	Dr.G.SivaVara Prasad
21	5129	Dr.C.S. Preetham Reddy
22	5230	T Penchala Naidu
23	5239	Mr. M. Lakshmanakumar
24	5251	Muzammil Parvez M
25	5413	Mohan K N
26	5891	Dr.E.Kiran Kumar

2. Faculty achievements, recognitions, and awards.

- Dr. K. Sarat Kumar, Professor has received “Best Electronics and Communications Engineering Teacher” by ISTE, A P. Section.
- Dr. K. Sarat Kumar, Professor has been recognized by MHRD as a member in NAAC peer review committee.
- Dr. B. T. P. Madhav, Professor has received an award from Asia book of records for publishing maximum number of articles in reputed journals.

**DR. K. SARAT KUMAR**  
Professor & Head  
BOS Chair, ECE  
Department of ECE  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**3. Placement status of Y17 admitted batch.**

K L E F DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING				
Category	Pega	WTN	NWTN	Total
Registered	105	399	52	556
Placed	103	348	46	497
Not Interested	0	24	4	28
Backlog/Low CGPA	0	1	0	1
Yet 2 be Placed	2	26	2	30

out of the remaining 30 Yet to be placed students, 12 students are already in various stages of interviews and expected to be placed in couple of days

SUMMARY	1. Total Placement Registered	556
	2. Placed	497
	3. Yet to be Placed	30
	4. Total Number of Placement Offers	819
	5. Total No. of Companies visted for ECE	56
	6. Total No. of NR Students Placed	30
	7. Highest Package Offered	12.2

BOS Chair, ECE

**Dr. M. SUMAN**  
Professor & Head  
Department of ECE  
K L E F

Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502





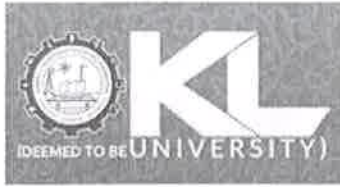
Course structures of M. Tech programs.

i. M. Tech IOT

KLEF						
Dept. of Electronics and Communication Engineering						
M. Tech IoT						
AY. 2020-21						
Semester-I						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	IoTs, WSN & Bio-medical Applications	3	0	2	0	4
2	Embedded Controllers & SoCs	3	0	2	0	4
3	Modern Data Computing - Foundation Course [Statistics, AI, ANN & ML]	3	0	2	0	4
4	Flexi-Core Course 1	3	0	2	0	4
5	Professional Elective 1	3	0	0	4	4
6	Seminar	0	0	4	0	2
7	Technical Skilling-I	0	0	0	4	1
<b>Total</b>		<b>18</b>	<b>3</b>	<b>8</b>	<b>6</b>	<b>23</b>
Semester-II						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Solar PV Cells & Solar Power Arrays	3	0	2	0	4
2	Autonomous Vehicles & Automation Electronics	3	0	2	0	4
3	Flexi-Core Course 2	3	0	2	0	4
4	Professional Elective 2	3	0	0	4	4
5	Professional Elective 3	3	0	0	4	4
6	Term Paper	0	0	4	0	2
7	Technical Skilling-II	0	0	0	4	1
<b>Total</b>		<b>18</b>	<b>2</b>	<b>8</b>	<b>10</b>	<b>23</b>
Semester-III&IV						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Open Elective-1	3	1	0	0	4
2	Open Elective-2	3	1	0	0	4
3	M. Tech. Project 1	2	4	8	8	12

BOS Chair, ECE

**DR. M. SUMAN**  
Professor & Head  
Department of ECE  
KLEF  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502



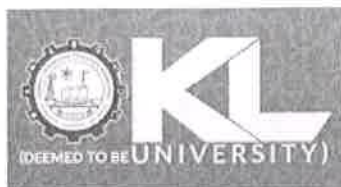
**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

4	M. Tech. Project 2	2	4	8	8	12
5	seminar Talks & Viva	2	2	0	0	4
6	Research Paper & Viva	2	6	0	0	8
7	Dissertation	0	0	72	0	36
<b>Total Program Credits</b>						<b>82</b>
<b>Flexi Core 1&amp;2 Courses</b>						
1	Analog Digital Circuits, VLSI, ASICs and FPGA [ADC-VLSI-ASICS- FPGA]	3	0	2	0	4
2	Analog Digital Communication & Wireless Data Networks [ADCom-WDN]	3	0	2	0	4
3	Data Networks, WSN and Protocols	3	0	2	0	4
4	Control Systems, Robotics & Automation - Foundation Course	3	0	2	0	4
5	Data Bases, Data Modeling& Data Structures [DB-DM-DS]	3	0	2	0	4
6	Advanced Data Structures, Algorithms [Java] and Mobile Apps	3	0	2	0	4
7	Operation Research, System Engineering, Design & Optimization	3	0	2	0	4
8	Advanced Course in Data Computing [AI, ANN, ML & DS]	3	0	2	0	4
S. No.	Course Title	Periods				Credits
		L	T	P	S	
<b>Elective-1</b>						
1	Signal Processing for IoTs [Speech, Image, Biomedical]	3	0	0	0	3
2	IoT & Smart Cities Basic Course [IoT-SC BC]	3	0	0	0	3
3	Wireless Technologies [GPRS, WCDMA, GSM, UMTS]	3	0	0	0	3
<b>Elective-2</b>						
1	Systems for Smart Cities & Smart Villages	3	0	0	0	3
2	Systems for Renewable Energy & Smart Grids	3	0	0	0	3
3	Computer Vision & Video Surveillance Systems	3	0	0	0	3
<b>Elective-3</b>						
1	Human Machine Interface & Brain Machine Interface (HMIBMI)	3	0	0	0	3
2	Cloud-Computing & Network Security	3	0	0	0	3
3	Block Chain & Cyber Security	3	0	0	0	3
4	Advanced Machine Learning, DNN & CNN	3	0	0	0	3

**DR. M. SUMAN**  
Professor & Head  
BOS Chair, ECE of ECE  
KLEF

Green Fields, Addiswaram  
Guntur Dist., AP. PIN: 522 502





**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

ii. **M. Tech Robotics & Automation**

<b>KLEF</b>						
<b>Dept. of Electronics and Communication Engineering</b>						
<b>M. Tech Robotics &amp; Automation</b>						
<b>AY. 2021-22</b>						
<b>Semester-I</b>						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Control Systems, Robotics & Automation - Foundation Course	3	0	2	0	4
2	Embedded Controllers & SoCs	3	0	2	0	4
3	Modern Data Computing - Foundation Course [Statistics, AI, ANN & ML	3	0	2	0	4
4	Flexi-Core Course 1	3	0	2	0	4
5	Professional Elective 1	3	0	0	4	4
6	Technical Skilling-I	0	0	0	8	2
<b>Total</b>		<b>15</b>	<b>0</b>	<b>8</b>	<b>12</b>	<b>22</b>
<b>Semester-II</b>						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Advanced Robotics Course	3	0	2	0	4
2	Autonomous Vehicles & Automation Electronics	3	0	2	0	4
3	Flexi-Core Course 2	3	0	2	0	4
4	Professional Elective 2	3	0	0	4	4
5	Professional Elective 3	3	0	0	4	4
6	Technical Skilling-II	0	0	0	8	2
<b>Total</b>		<b>15</b>	<b>0</b>	<b>6</b>	<b>16</b>	<b>22</b>
<b>Semester-III</b>						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Open Elective [Online Course/MOOC Allowed]	3	0	0	0	3
2	M. Tech. Project Dissertation - Part 1	0	0	3	6	18
3	Seminar Talks/Presentations	0	0	2	0	1
<b>Total</b>		<b>3</b>	<b>0</b>	<b>38</b>	<b>0</b>	<b>22</b>
<b>Semester-IV</b>						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	M. Tech. Project Dissertation - Part 2	0	0	36	0	18
2	Research Paper & Presentation	0	0	6	0	3
<b>Total</b>		<b>0</b>	<b>0</b>	<b>42</b>	<b>0</b>	<b>21</b>
<b>Total Program Credits</b>						<b>87</b>

**BOS Chair, ECE**  
**Dr. M. SUMAN**  
Professor & Head  
Department of ECE  
KLEF  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502



Flexi Core Courses 1 & 2						
1	Operation Research, System Engineering, Design & Optimization	3	0	2	0	4
2	Semiconductor Physics and Semi-conductor Memories	3	0	2	0	4
3	Wireless Communication & Data Communications [WC-DN] Data Networks [ADCom-WDN]	3	0	2	0	4
4	IoTs, WSN & Bio-medical Applications	3	0	2	0	4
5	Data Bases, Data Modeling & Data Science	3	0	2	0	4
6	Advanced Data Sciences, Algorithms [Java] and Mobile Apps	3	0	2	0	4
7	Signal Processing for Robotics [Speech, Image, Biomedical]	3	0	2	0	4
8	Advanced Course in Data Computing [AI, ANN, ML & DS]	3	0	2	0	4
Professional Elective 1						
1	Mechatronics Systems	3	0	0	4	4
2	Human Machine Interface & Brain Machine Interface (HMI BMI)	3	0	0	4	4
3	Industrial Automation, Bio Robotics & Assistive Robotic Systems	3	0	0	4	4
Professional Elective 2						
1	Advanced Controls Systems & CNC Technologies	3	0	0	4	4
2	Cloud-Computing & Network Security	3	0	0	4	4
3	Computer Vision & Video Surveillance Systems	3	0	0	4	4
Professional Elective 3						
1	Data Networks, WSN and Protocols	3	0	0	4	4
2	Advanced Micro & Nano Devices and Systems	3	0	0	4	4
3	Block Chain & Cyber Security	3	0	0	4	4
4	Advanced Machine Learning, DNN & CNN	3	0	0	4	4

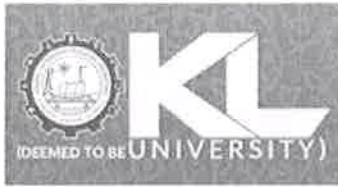
**Dr. S. SUMAN**  
BOS Chair, ECE  
Department of ECE  
K. L. E. F.  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502



iii. M. Tech RADAR & Communication

KLEF						
Dept. of Electronics and Communication Engineering						
M. Tech Radar & Communications						
AY. 2021-22						
Semester-I						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Wireless Communication and Data Networks	3	0	2	0	4
2	Microwave Engineering & RF Systems Design	3	0	2	0	4
3	Modern Data Computing [Statistics, AI, ANN & ML]	3	0	2	0	4
4	Flexi Core Courses - 1 [Flexi-Core Course, out of 8]	3	0	2	0	4
5	Professional Elective – 1	3	0	0	4	4
6	Technical Skilling	0	0	0	8	2
<b>Total</b>		<b>15</b>	<b>0</b>	<b>8</b>	<b>12</b>	<b>22</b>
Semester-II						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Wireless Technologies [GPRS, WCDMA, GSM, UMTS]	3	0	2	0	4
2	Antenna Design, EMI/EMC and Electronic Warfare	3	0	2	0	4
3	Flexi Core Courses - 2 [Flexi-Core Course, out of 8]	3	0	2	0	4
4	Professional Elective – 2	3	0	0	4	4
5	Professional Elective – 3	3	0	0	4	4
6	Technical Skilling	0	0	0	8	2
<b>Total</b>		<b>15</b>	<b>0</b>	<b>6</b>	<b>16</b>	<b>22</b>
Semester-III&IV						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Open Elective [Online Course/MOOC Allowed]	3	0	0	0	3
2	M. Tech. Project Dissertation - Part 1	0	0	36	0	18
3	Seminar Talks/Presentations	0	0	2	0	1
<b>Total</b>		<b>3</b>	<b>0</b>	<b>38</b>	<b>0</b>	<b>22</b>
Semester-IV						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	M. Tech. Project Dissertation - Part 2	0	0	36	0	18
2	Research Paper & Presentation	0	0	6	0	3
<b>Total</b>		<b>0</b>	<b>0</b>	<b>42</b>	<b>0</b>	<b>21</b>
<b>Total Program Credits</b>						<b>87</b>

*[Signature]*  
**BOS Chair, ECE**  
**Dr. M. Suman**  
 Professor & Head  
 Department of ECE  
 KLEF  
 Green Fields, Vaddeswaram  
 Guntur Dist., A.P. PIN: 522 502



Subject Options as per Specialization						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
<b>Flexi Core Courses - 1 &amp; 2 Subjects</b>						
1	VLSI, ASICs and FPGA [VLSI-ASICS-FPGA]	3	0	2	0	4
2	Data Bases, Data Modeling& Data Science [DB-DM-DS]	3	0	2	0	4
3	Embedded Controllers & SoCs	3	0	2	0	4
4	Control Systems, Robotics & Automation - Foundation Course	3	0	2	0	4
5	IoTs, WSN & Bio-medical Applications	3	0	2	0	4
6	Advanced Data Structures, Algorithms and Apps Development [Java]	3	0	2	0	4
7	Operation Research, System Engineering, Design & Optimization	3	0	2	0	4
8	Advanced Course in Data Computing [AI, ANN, ML & DS]	3	0	2	0	4
<b>Professional Elective-1</b>						
1	Signal Processing for Radars	3	0	0	4	4
2	Solar PV Cells & Solar Power Arrays	3	0	0	4	4
3	Optical Communication Networks & Quantum Computing	3	0	0	4	4
<b>Professional Elective-2</b>						
1	5G Mobile, Wireless Technologies & IEEE 802 Standards	3	0	0	4	4
2	Modern Antennas, Millimeter Waves Radars & Applications	3	0	0	4	4
3	Semi-conductor Memories & MEMS	3	0	0	4	4
<b>Professional Elective-3</b>						
1	Satellite Communications & Modern Navigation Systems	3	0	0	4	4
2	Modern Radars & Autonomous Vehicles	3	0	0	4	4
3	Block Chain & Cyber Security	3	0	0	4	4
4	Advanced Machine Learning, DNN & CNN	3	0	0	4	4
<b>Open Elective Courses through LinkedIn</b>						
1	Prepare for the PMI ACP Certification	3	0	0	0	3
2	Becoming a Six Sigma Black Belt	3	0	0	0	3
3	Become a Technical Program Manager	3	0	0	0	3
4	Digital Transformation for Tech Leaders	3	0	0	0	3
5	Become a Programmer: Foundations	3	0	0	0	3
6	Prepare for the AWS Certified Solutions Architect (Associate) Exam (SAA-C01)	3	0	0	0	3
7	Become a Data Analyst	3	0	0	0	3
8	Prepare for the CompTIA A+ Certification (220-1001 and 220-1002)	3	0	0	0	3
9	Stay Competitive Using Design Thinking	3	0	0	0	3
10	Prepare for Microsoft Azure Architect Technologies Certification (AZ-300)	3	0	0	0	3
11	Build Your Knowledge of Cloud Administration	3	0	0	0	3

**BOS Chair, ECE**  
**Dr. M. S. S. MANI**  
 Professor & Head  
 Department of ECE  
 Green Fields, Chittoor  
 Guntur Dist., A.P. PIN: 522 502-



iv. M. Tech VLSI

<b>KLEF</b>						
<b>Dept. of Electronics and Communication Engineering</b>						
<b>M. Tech. VLSI</b>						
<b>AY. 2021-22</b>						
<b>Semester-I</b>						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	ASICs and FPGA – Foundation Course	3	0	2	0	4
2	Digital VLSI Design	3	0	2	0	4
3	Modern Data Computing - Foundation Course [Statistics, AI, ANN & ML]	3	0	2	0	4
4	Flexi-Core Course 1	3	0	2	0	4
5	Professional Elective 1	3	0	0	4	4
6	Technical Skilling-I	0	0	0	8	2
<b>Total</b>		<b>15</b>	<b>0</b>	<b>8</b>	<b>12</b>	<b>22</b>
<b>Semester-II</b>						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Advanced Analog IC Design	3	0	2	0	4
2	Architectures for VLSI Systems Design	3	0	2	0	4
3	Flexi-Core Course 2	3	0	2	0	4
4	Professional Elective 2	3	0	0	4	4
5	Professional Elective 3	3	0	0	4	4
6	Technical Skilling-II	0	0	0	8	2
<b>Total</b>		<b>15</b>	<b>0</b>	<b>6</b>	<b>16</b>	<b>22</b>
<b>Semester-III</b>						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	Open Elective [Online Course/MOOC Allowed]	3	0	0	0	3
2	M. Tech. Project Dissertation - Part 1	0	0	3	6	18
3	Seminar Talks/Presentations	0	0	2	0	1
<b>Total</b>		<b>3</b>	<b>0</b>	<b>38</b>	<b>0</b>	<b>22</b>
<b>Semester-IV</b>						
S. No.	Course Title	Periods				Credits
		L	T	P	S	
1	M. Tech. Project Dissertation - Part 2	0	0	36	0	18
2	Research Paper & Presentation	0	0	6	0	3
<b>Total</b>		<b>0</b>	<b>0</b>	<b>42</b>	<b>0</b>	<b>21</b>
<b>Total Program Credits</b>					<b>87</b>	
<b>Flexi Core Courses 1 &amp; 2</b>						


**DR. SURESH K. SUMAN**  
BOS Chair, ECE  
Professor & Head  
Department of ECE  
KLEF  
Green Fields, yaddeswaram  
Guntur Dist., A.P. PIN: 522 502





**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

1	VLSI Testing and Design for Testability	3	0	2	0	4
2	Semiconductor Physics and Semi-conductor Memories	3	0	2	0	4
3	Control Systems, Robotics & Automation - Foundation Course	3	0	2	0	4
4	IoTs, WSN & Bio-medical Applications	3	0	2	0	4
5	Data Bases, Data Modeling & Data Science	3	0	2	0	4
6	Advanced Data Structures, Algorithms [Java] and Mobile Apps	3	0	2	0	4
7	Operation Research, System Engineering, Design & Optimization	3	0	2	0	4
8	Advanced Course in Data Computing [AI, ANN, ML & DS]	3	0	2	0	4
<b>Professional Elective 1</b>						
1	Signal Processing for VLSI	3	0	0	4	4
2	IC Fabrication Technology	3	0	0	4	4
3	Device Modeling for VLSI Circuit Simulation	3	0	0	4	4
<b>Professional Elective 2</b>						
1	Low Power VLSI System Design	3	0	0	4	4
2	Algorithms for VLSI Design Automation	3	0	0	4	4
3	System Verilog & Universal Verification Methodology	3	0	0	4	4
<b>Professional Elective 3</b>						
1	RF Mixed Signal IC Design & MEMS	3	0	0	4	4
2	Advanced Micro & Nano Devices and Systems	3	0	0	4	4
3	Block Chain & Cyber Security	3	0	0	4	4
4	Advanced Machine Learning, DNN & CNN	3	0	0	4	4

  
**IBQS Chair, ECE** **UMAN**  
 Professor & Head  
 Department of ECE  
 Green Fields, Vaswaram,  
 Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Annexure-III**

**I Year course structure for AY 2021-22 admitted batch.**

Y21 REGULATION								
S. No	Course Code	Course Title	L	T	P	S	Cr	CH
SEMESTER - 1								
1	21MT1101	Mathematics for Computing	2	2	0	2	4.5	6
2	21SC1101	Computational Thinking for Design	3	0	2	6	5.5	11
3	21UC1101	INTEGRATED PROFESSIONAL ENGLISH	0	0	4	0	2	4
4	21ME1103	Design Tools Workshop - I	0	0	4	0	2	4
5	21EC1101	Digital Logic & Processors	3	0	2	0	4	5
Total			9	2	12	12	18	35
SEMESTER - 2								
1	21MT2102	Mathematics for Engineers	2	1	0	0	3	3
2	21SC1212	Data Structures & Algorithms	3	0	2	4	5	9
3	21UC1212	English Proficiency	0	0	4	0	2	4
4	21SC1219	Design Tools Workshop - II	0	0	4	0	2	4
5	21EC1212	Computer Organization & Architecture	2	0	0	0	2	2
6	21EC1213	DESIGN OF BASIC ELECTRONICS CIRCUITS	3	0	0	0	3	3
7	21UC1102	DESIGN THINKING AND INNOVATION-I	1	0	0	4	2	5
Total			11	1	10	8	19	30

  
BOS Chair, ECE

**Dr. M. SUMAN**

Professor & Head  
Department of ECE

**KLEF**

Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. w/s. 3 of UGC Act 1956)

**Annexure- IV**

National Occupational Standards – Electronics Sector Skills Council of India										
COURSE CODE	COURSE NAME	Sector	Sub Sector	QP Code	Occupation	QP Name	NSQF Level	QP File	Model Curriculum	
19EC2103	Analog Electronic Circuit Design	Electronics Sector Skills Council of India	Semiconductor Design and Active Components	ELE/Q12 01	Designing	VLSI Design Engineer	5	<a href="https://nsdcindia.org/sites/default/files/ELEQ1201_VLSI_Design_Engineer_v1_04_01_2019.pdf">https://nsdcindia.org/sites/default/files/ELEQ1201_VLSI_Design_Engineer_v1_04_01_2019.pdf</a>		
19EC2104	Communication Signals & System Design	Electronics Sector Skills Council of India	Semiconductor Design and Active Components	ELE/Q13 01	Verification	Verification Engineer	5	<a href="https://nsdcindia.org/sites/default/files/QP_ELE-Q1301_Verification-Engineer.pdf">https://nsdcindia.org/sites/default/files/QP_ELE-Q1301_Verification-Engineer.pdf</a>		
19EC2105	Analog And Digital Communication	Electronics Sector Skills Council of India	Semiconductor Design and Active Components	ELE/Q14 01	Designing	Physical Design Engineer	5	<a href="https://nsdcindia.org/sites/default/files/QP_ELE-Q1401_Physical-Design-Engineer.pdf">https://nsdcindia.org/sites/default/files/QP_ELE-Q1401_Physical-Design-Engineer.pdf</a>		
19EC2208	Digital Signal Processing	Electronics Sector Skills Council of India	Semiconductor Design and Active Components	ELE/Q14 03	Design	Embedded Product Designer - Technical Lead	6	<a href="https://nsdcindia.org/sites/default/files/ELEQ1403_Embedded_Product_Designer_technical_lead_v1_10_10_2019.pdf">https://nsdcindia.org/sites/default/files/ELEQ1403_Embedded_Product_Designer_technical_lead_v1_10_10_2019.pdf</a>	<a href="https://nsdcindia.org/sites/default/files/MC_ELEQ1403_Embedded%20Product%20Designer-technical%20Lead%20V1.0_21.10.2019.pdf">https://nsdcindia.org/sites/default/files/MC_ELEQ1403_Embedded%20Product%20Designer-technical%20Lead%20V1.0_21.10.2019.pdf</a>	
20EC2106	Embedded Controllers & Embedded Systems Design	Electronics Sector Skills Council of India	Semiconductor & Components	ELE/Q14 04	Product Design	Embedded Full-Stack IoT Analyst	5	<a href="https://nsdcindia.org/sites/default/files/ELEQ1404_Embedded_FullStack_IoT_Analyst_v1_10_10_2019.pdf">https://nsdcindia.org/sites/default/files/ELEQ1404_Embedded_FullStack_IoT_Analyst_v1_10_10_2019.pdf</a>	<a href="https://nsdcindia.org/sites/default/files/MC_ELEQ1404_Embedded_Fullstack_IoT_Analyst_21.10.2019.pdf">https://nsdcindia.org/sites/default/files/MC_ELEQ1404_Embedded_Fullstack_IoT_Analyst_21.10.2019.pdf</a>	
19EC3018	Biomedical Electronics & IoT For Healthcare	Electronics Sector Skills Council of India	Semiconductor & Components	ELE/Q14 05	Product Design	IoT Hardware Analyst	5	<a href="https://nsdcindia.org/sites/default/files/ELEQ1405_IoT_Hardware_Analyst_v1_10_10_2019.pdf">https://nsdcindia.org/sites/default/files/ELEQ1405_IoT_Hardware_Analyst_v1_10_10_2019.pdf</a>	<a href="https://nsdcindia.org/sites/default/files/MC_ELEQ1405_IoT%20Hardware%20Analyst_V.10_21.10.2019.pdf">https://nsdcindia.org/sites/default/files/MC_ELEQ1405_IoT%20Hardware%20Analyst_V.10_21.10.2019.pdf</a>	
19EC3015	VLSI Design	Electronics Sector Skills Council of India	Semiconductor Design and Active Components	ELE/Q12 01	Designing	VLSI Design Engineer	5	<a href="https://nsdcindia.org/sites/default/files/ELEQ1201_VLSI_Design_Engineer_v1_04_01_2019.pdf">https://nsdcindia.org/sites/default/files/ELEQ1201_VLSI_Design_Engineer_v1_04_01_2019.pdf</a>		

**Dr. BOS Chaitanya**  
Professor & Head  
Department of ECE  
Green Fields, Vaddeswaram  
Guntur Dist., A.P. PIN: 522 502





**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

S.No	Branch	Occupation / Job Role	Skilling Course to which this QP Is Mapped
1	ECE	VLSI Design Engineer	Semiconductor & Components 19EC2103 - Analog Electronic Circuit Design 19EC2104 - Communication Signals & System Design 19EC2105 - Analog And Digital Communication 19EC2208 - Digital Signal Processing 19EC3015 - VLSI Design
2	ECE	Telecom Technician- IOT Device/System	IoT Protocols & Architectures 2) IoT Sensing &Actuating Devices 20EC2106 - Embedded Controllers & Embedded Systems Design 19EC3018 - Biomedical Electronics &Iot For Healthcare
3	ECE	Network Engineer	19EC2210 -Data Networks & Protocols

*[Signature]*  
BOS Chair, ECE

**Dr. M. SUMAN**

Professor & Head  
Department of ECE

KLEF

Green Fields, Maddeswaram  
Guntur Dist., A.P. PIN: 522 502




# KONERU LAKSHMAIAH EDUCATION FOUNDATION

(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

### Annexure-V

S.No	Course Code	Course Title	Existing Syllabus	New Syllabus	Topics added/removed/replaced	Changes in Course Outcome(s)	Justification for the modifications	Revision(%)
1	20EC2106	Embedded Controllers & Embedded Systems Design	<p>"CO1: Basics of Embedded System: Basics, Introduction and History of Processors, 8086 Architecture, Instruction set, 8086 programming and examples. 5 Hrs</p> <p>CO2: Microcontroller Fundamentals: 8051 Architecture, addressing modes, Instruction set, Simple Programs involving Arithmetic and Logical Instructions, Timers/Counters, Interrupts. CO2: 8051 Interfacing: Serial Data Communication and RS-232C Standard with 8051 Programming, Peripherals and Input Output with 8051 Microcontroller (PIO, Timers and Interfacing) Modern Microcontrollers: Introduction and Architecture of PIC Microcontroller, Introduction of ARM7 (LPC2148), Basic Architecture of ARM7, Pin Description, Advanced Microcontroller Bus Architecture (AMBA). 11 Hrs</p> <p>CO4: Advanced Topics: Introduction to CORTEX (STM 32), Architecture and Introduction to RTOS (Real Time operating systems). Basic concepts and applications of RTOS. 4 Hrs "</p>	<p>"CO1: Basics of Embedded System: Basics, Introduction and History of Processors, 8086 Architecture, Instruction set, 8086 programming and examples. Microcontroller Fundamentals: 8051 Architecture, addressing modes, Instruction set, Simple Programs involving Arithmetic and Logical Instructions, Timers/Counters, Interrupts. CO2: 8051 Interfacing: Serial Data Communication and RS-232C Standard with 8051 Programming, Peripherals and Input Output with 8051 Microcontroller (PIO, Timers and Interfacing). Introduction and Architecture of PIC &amp; ATMEGA 32 Microcontrollers. CO3: Modern Microcontrollers: Introduction to Real Time operating systems (RTOS). Basic concepts and applications of RTOS. Introduction to CORTEX-ARM (STM 32) &amp; ARM7 (LPC2148) Microcontrollers. Basic Architecture of ARM7, Pin Description, and Advanced Microcontroller Bus Architecture (AMBA) concepts. CO4: Advanced Topics: Introduction to Multiprocessor System Design and Bus Based Communication Architecture. Basic concepts of 'System on Chip (SoC)' and its Applications. Introduction to and its Applications. Introduction to Microcontroller Boards – Ex: Arduino,</p>	<p>"Added: CO1: OLD Syllabus (CO1 &amp; CO2) Merged. CO2: OLD Syllabus CO3 &amp; OLD CO4 PIC MC added. CO3: OLD Syllabus CO4 Replaced to new syllabus CO3 &amp; OLD CO4 RTOS topic newly added. CO4: Advanced Topics: Introduction to Multiprocessor System Design and Bus Based Communication Architecture. Basic concepts of 'System on Chip (SoC)' and its Applications. Introduction to Microcontroller Boards. Removed: Replaces:"</p>	<p>Understand the basic concepts of 'System on Chip (SoC)' and its Applications.</p>	<p>As Per the core Companies recruitment System on Chip (SoC) newly added into CO4.</p>	20%

  
**BOS Chair, ECE**  
**Dr. NAGESWARI**  
 Professor & Head  
 Department of ECE  
 K. J. Somaiya Institute of  
 Engineering & Information  
 Technology  
 Green Fields, Madheswaram  
 Guntur Dist., A.P. PIN: 522 502.



# KONERU LAKSHMAIAH EDUCATION FOUNDATION

(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

			<p>Beagle Bone, Raspberry Pi etc. Microcontroller Boards' Comparisons, Hardware Requirements, Pin Diagrams and detailed Descriptions, Interfacing &amp; Instruction sets. Their key Features, Specifications, Programming &amp; Applications."</p>		
	<p>As Per the suggestion of Course Team and Expert members, The Detailed Concepts of Solar power System added into CO3.</p>	<p>Able to understand the Solar power System and Design the systems; Able to analyse the SPV arrays, configurations with AI and ML with BTL Level of 4</p>	<p>"Added: CO3: Solar Power System Topics: Solar Power Systems (BOS) Components and Classification. Standard Certification. Advanced Topics: Introduction to Smart Grids and Smart metering Removed: Voltage regulation: Grid connected structure, affine parameterization, sizing systems, feed forward control and PID controllers Replaces: Replaced the Removed content on the Classification and Design consideration "</p>	<p>"CO1: Solar Photovoltaic Fundamentals and Characteristics: Structure, operations and characteristics of photodiode and solar cells. Photovoltaic Cells: Basic structure, materials and equivalent circuits. PV output Characteristics, performance testing of cells and efficiency. Introduction to PV modules, panels, string, arrays, sub array and blocking diodes. CO2: Solar Photovoltaic Materials and SPV cell Production: Crystalline and amorphous silicon solar cells: Properties, production process, III-V solar cells, CdTe, CIGS, DSSCs, organic, hybrid and perovskite solar cells. Different techniques of solar cell fabrication and assemble: multi junction, stack (hybrid and HIT), concentrated solar cells and arrays. CO3: Solar Photovoltaic Systems Design, Testing and Optimisation: Solar PV system design: design consideration, process, and design aid expert. Performance test procedure for panels: Performance measurements, module reliability, stability, and qualification testing. Voltage regulation: Grid connected structure, affine</p>	<p>2 19EC3052 Solar Photovoltaic Cells &amp; Solar Power Arrays</p>

  
**Dr. B. S. Mani**, ECE  
 Professor & Head  
 Department of ECE  
 Green Fields, Chittoor, Andhra Pradesh  
 Chittoor Dist., Andhra Pradesh, PIN: 522 502







**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s: 3 of UGC Act 1956)

	<p>support vector machine, variations in SVM, Gaussian Mixture models, applications of GMMs. CO4: Intro Other Computing Methods: Adaptive Fuzzy Logic: Fuzzy logic and fuzzy sets: Membership functions, operations on fuzzy sets, types of fuzzy functions, Fuzzy relationships; Genetic Algorithms: Basic Operations of a Genetic algorithm, Genetic cycles "</p>	<p>Losses, Recurrent Neural Networks, Long Short-Term Memory Networks, Associative memories, Hopfield networks, Convolutional Neural Networks, Deep Learning, Deep Neural NWs. CO4: Intro to soft Computing Methods: Adaptive Fuzzy Logic: Fuzzy logic and fuzzy sets: Membership functions, operations on fuzzy sets, types of fuzzy functions, Fuzzy relationships. Genetic Algorithms: Basic Operations of a Genetic algorithm, Genetic cycles. Applications: Decision trees, VGG – 16, ResNet, Yolo, Mobilenet, Autoencoders, GoogleNet, Transformers. "</p>				
--	---	--	--	--	--	--

  
 BOS Chair, ECE  
**Dr. M. SUMAN**  
 Professor in Charge  
 Department of ECE  
 Green Fields, Addeswararam  
 Guntur Dist., A.P. PIN: 522 502





ECE

**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Department of Electronics and Communication Engineering**

**Department Academic Committee Meeting**

**22<sup>nd</sup> September 2020**

**Time: 11AM**

**Online WebEx Meeting**

**Agenda:**

1. ECE course structure for Y20 admitted students.
2. Inclusion of design based courses as additional courses into the Y19 curriculum with 2Cr each.
3. Course structure of M. Tech VLSI program.
4. Course structure of M. Tech RADAR & Communications.
5. Details of conduction of remedial classes.
6. Discussion reg. the conduction of remedial examinations.
7. List of ECE courses offered through online.
8. Discussion about certification courses.

**Minutes of the meeting**

1. All DAC members strongly opposed the conduction of design of basic electronics circuits course in summer semester.
2. Also the members expressed their concern over the IV and V semester structure, where the students are over loaded with 40+ contact hours per week. Due to the inclusion of new courses.
3. DAC members strongly recommend the inclusion of Network theory and basic electronic circuits course with 4Cr in II-Semester.
4. Dr. M Venkata Narayana, proposed to include JAVA course into curriculum in view of enhancing placement and employability skills, DAC members forwarded to BOS for discussion.
5. It is approved for the inclusion of design-based courses as additional courses having 2Cr each and a total of four design-based courses into the curriculum.
6. DAC members forwarded the new course structure of M. Tech programs for AY 2020-21 to the BOS for approval.
7. DAC recommended put forth the new detention policy for the consideration of Dean Academics and Academic Counsel, the policy as follows
  - a. Only Summative assessment can be considered for detention.
  - b. The total summative shall be calculated as the sum of 75% of max. marks of test1 or test2, and 25% of min. of test1 or test2
  - c. Summative evaluation (Test-1 and Test-2) 30M
  - d. Formative evaluation (ALM's, Home Assignment, Continuous Project Evaluation) 15M
  - e. Attendance 5M

Note: If the student obtain <50% of marks in the summative assessment he/she can be considered for detention.

**Dr. M. SURESH**  
Professor & Head  
Department of ECE  
KLEF

Green Fields, Vaddeswaram.  
Guntur Dist., A.P. PIN: 522 502.

  
**BOS Chair, ECE**



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

8. The committee members recommended new policy for remedial classes and betterment for Dean Academics consideration and as follows
  - f. Student obtain marks less than  $<50\%$  must attend remedial classes and must take the remedial test.
  - g. Student obtain marks in the range of  $>50\%$  can appear the betterment test, as per the students choice.
  - h. The best of regular test marks or remedial/betterment marks will be considered for assessment.
9. The committee members recommended new academic evaluation policy for in-semester assessment for Dean Academics consideration and as follows
  - a. To have three in-semester evaluations and the best of two will be consider for the internal marks and detention policy, this is at the discretion of Dean Academics and Principal COE.
10. Dept. Chair, Prof. V. K. Mittal has proposed four new M. Tech programs with new course structure for AY 2021-22
  - a. M. Tech in IOT & Smart City Technologies
  - b. M. Tech in Robotics & Automation Electronics
  - c. M. Tech in Advanced Signal processing with AI & ML
  - d. M. Tech in AI & DS for Electronic Communication Systems

The above mentioned M. Tech programs are recommended by DAC

11. DAC members agreed to have three technical certifications with atleast of one global certification. Also, the Head of the dept. called for certification course proposals by the Academic/Head coordinators from their respective domains.
12. DAC members suggested that the student must do the certifications as per his respective specialization.
13. DAC members approved the conduction of various ECE courses through online MOOC's.

**Dr. M. SUMAN**  
Professor & Head  
Department of ECE  
**KLEF**  
Green Fields, Vaddeswaram,  
Guntur Dist., A.P. PIN: 522 502

*M. Suman*  
**BOS Chair, ECE**





**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**Standing Committee to Board of Studies Meeting – 19**

Time: 3.30 PM

Online WebEx Session

22<sup>th</sup> September 2020

**Minutes of the meeting**

**Agenda items:**

<b>1.</b>	<b>To approve ECE course structure for Y20 admitted students.</b> <b>Resolution/suggestions:</b> <ol style="list-style-type: none"><li>All the members have <b>strongly opposed</b> the summer class work and the conduction of design of basic electronics circuits course.</li><li>The concern over the V and VI semester structure, where the students are overloaded with 40+ contact hours per week. Due to the inclusion of new courses, will be managed by providing minimum of 8 hrs of independent learning for skill-based courses.</li><li>The committee members strongly recommended the inclusion of Network theory and basic electronic circuits course with 4Cr in II-Semester.</li><li>Dr. M Venkata Narayana, proposed to include JAVA course into curriculum in view of enhancing placement and employability skills, will be considered for next curriculum revision.</li></ol>
<b>2.</b>	<b>To approve the inclusion of design-based courses as additional courses with 2Cr each into Y19 curriculum.</b> <b>Resolution/suggestions:</b> It is approved for the inclusion of design-based courses as additional courses having 2Cr each and a total of four design-based courses into the curriculum. <i>Annexure-I</i>
<b>3. a</b>	<b>To approve the course structure of M. Tech program: RADAR &amp; Communication</b> <b>Resolution/suggestions:</b> Approved the course structures of M. Tech in RADAR & Communications for A.Y. 2020-21, with the incorporation of suggestion in previous BOS meeting. <i>Annexure-II</i>
<b>3. b</b>	<b>To approve the course structure of M. Tech program: VLSI Design</b> <b>Resolution/suggestions:</b> It is resolved to approve the course structures of M. Tech in VLSI for A.Y. 2020-21, with the incorporation of suggestion in previous BOS meeting. <i>Annexure-III</i>
<b>4.</b>	<b>New policies for conduction of remedial classes, remedial examinations, and student detention</b> <b>Resolution/suggestions:</b> <ol style="list-style-type: none"><li>The committee put forth the new detention policy for the consideration of Dean Academics and Academic Counsel, the policy as follows<ol style="list-style-type: none"><li>Only Summative assessment can be considered for detention.</li><li>The total summative shall be calculated as the sum of 75% of</li></ol></li></ol>

**Dr. M. SUMAN**  
Professor & Head BOS Chair, ECE  
Department of ECE  
**KLEF**

Green Fields, Vaddeswaram.  
Guntur Dist., A.P. PIN: 522 502



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

	<p>max. marks of test1 or test2, and 25% of min. of test1 or test2</p> <p>c. Summative evaluation (Test-1 and Test-2) 30M</p> <p>d. Formative evaluation (ALM's, Home Assignment, Continuous Project Evaluation) 15M</p> <p>e. Attendance 5M</p> <p>Note: If the student obtain &lt;50% of marks in the summative assessment he/she can be considered for detention.</p> <p>2. The committee members recommended new policy for remedial classes and betterment for Dean Academics consideration and as follows</p> <p>a. Student obtain marks less than &lt;50% must attend remedial classes and must take the remedial test.</p> <p>b. Student obtain marks in the range of &gt;50% can appear the betterment test, as per the students choice.</p> <p>c. The best of regular test marks or remedial/betterment marks will be considered for assessment.</p> <p>3. The committee members recommended new academic evaluation policy for in-semester assessment for Dean Academics consideration and as follows</p> <p>a. To have three in-semester evaluations and the best of two will be consider for the internal marks and detention policy, this is at the discretion of Dean Academics and Principal COE.</p>
5.	<p><b>To approve the list of ECE courses offered through online MOOC's.</b> <b>Resolution/suggestions:</b></p> <p>It is resolved to conduct various ECE courses through online MOOC's as per the university policy.</p>
6.	<p><b>Discussion on the offering and conduction of certification courses.</b> <b>Resolution/suggestions:</b></p> <p>1. The committee members agreed to have three technical certifications for all students as per the academic regulations and the student has to complete atleast two global/recognized certifications per specialization.</p> <p>2. The Head of the dept. called for certification course proposals by the Academic/Head coordinators from their respective domains.</p> <p>3. The certificate courses can be complete through online MOOC's (Coursera, Edx, Simplilearn, etc) as per the discretion of Dean Academics.</p>
7.	<p><b>Proposal of new M. Tech programs for AY 2020-21.</b> <b>Resolution/suggestions:</b></p> <p>Dept. Chair, Prof. V. K. Mittal has proposed four new M. Tech programs with new course structure for AY 2021-22</p> <p>a. M. Tech in IOT &amp; Smart City Technologies</p> <p>b. M. Tech in Robotics &amp; Automation Electronics</p> <p>c. M. Tech in Advanced Signal processing with AI &amp; ML</p> <p>d. M. Tech in AI &amp; DS for Electronic Communication Systems</p>

The resolutions of BOS meeting are forwarded to Academic Council for approval.

**Dr. M. SUMAN.**  
Professor & Head  
Department of ECE  
**KLEF**  
Green Fields, Vaddeswaram.  
Guntur Dist., A.P. PIN: 522 502.

*M. Suman*  
BOS Chair, ECE



**KONERU LAKSHMAIAH  
EDUCATION FOUNDATION**  
(Deemed to be University, Estd. u/s. 3 of UGC Act 1956)

**Member of Standing Committee for BOS Meeting-19**

S. No	Name of the Faculty	Designation
1	Dr. M. Suman, Professor ,HOD & BOS Chair	BOS Chair
2	Dr. Vinay Kumar Mittal, Professor & Dept. Chair	Member
3	Dr. L. Koteswara Rao, Professor & HOD-ECE, KLH	Member
4	Dr. Habibullah Khan, Professor	Member
7	Dr. V Rajesh, Professor	Member
8	Dr. K.Sarat Kumar, Professor	Member
9	Dr. A.S.C.S.Sastry, Professor	Member
10	Dr. K.Ch.Sri Kavya, Professor	Member
11	Dr. M Venkata Narayana, Professor	Member
12	Dr. Madhukar Deshmukh, Professor	Member
13	Dr. Lakshman Pappula, Assoc. Professor	Member
14	Dr. I.Govardhani, Professor	Member
15	Dr. M.Siva Ganga Prasad, Professor & HOD ECM	Member
16	Dr. P. Satya Srinivas Babu, Professor	Member
17	Dr. P Satyanarayana, Professor	Member
18	Dr. P V V Kishore, Professor	Member
19	Dr. M Sridhar, Professor	Member
20	Dr. S Koteswara rao, Professor	Member
21	Dr. G V Subbarao, Professor	Member
22	Dr. M Venugopal Rao Professor	Member
23	Dr. B T P Madhav, Professor	Member
24	Dr. D Venkat Ratnam, Professor	Member
25	Dr. K Srinivas Rao, Professor	Member
26	Dr. K Kumar Naik, Professor	Member
27	Dr. V. S. V. Prabhakar, Professor	Member
28	Dr. T.V.Rama Krishna, Professor	Member
29	Dr. K.S.Ramesh, Professor	Member
30	Dr. K.Hari Kishore, Professor	Member
31	Dr. Md.Z Rehman, Professor	Member
32	Dr. P.Pardhasaradhi, Professor	Member
33	Dr. B.Polaiah, Professor	Member
34	Dr. Fazal Noorbasha, Assoc. Professor	Member
35	Dr. Ch. Sreevardhan, Assoc. Professor	Member
36	Dr. M. Ravi Kumar, Assoc. Professor	Member
37	Dr. M. Goutham, Asst. Professor, ECE, KLH	Member
38	Dr. C. Sandeep Reddy, Asst. Professor, ECE, KLH	Member

**Dr. M. SUMAN**  
Professor & Head  
Department of ECE  
**KLEF** BOS Chair, ECE  
Green Fields, Vaddeswaram.  
Guntur Dist., A.P. PIN: 522 502.



# KLEF

**KONERU LAKSHMAIAH EDUCATION FOUNDATION**  
(Deemed to be university estd, u/s, 3 of the UGC Act, 1956)  
(NAAC Accredited "A" Grade University)

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**Y19 REGULATION**

**SEMESTER - I**

1	19MT1101	Mathematics for Computing	SCH CORE	BS	3	1	0	4	5	8	NIL
2	19UC1101	Basic English	SCH CORE	HS	0	0	4	0	2	4	NIL
3	19SC1101	Problem Solving and Computer Programming	SCH CORE	ES	3	0	2	0	4	5	NIL
4	19SC1106	Technical Skills-1(Coding)	SCH CORE	ES	0	0	0	6	1.5	6	NIL
5	19ME1103	DESIGN TOOLS WORKSHOP - I	UNI CORE	ES	0	0	4	0	2	4	NIL
6	19EC1101	Digital Logic & Processors	SCH CORE	ES	3	0	2	0	4	5	NIL
7	19GN1101	Counsling-1	SCH CORE	BS	0	0	0	4	0	4	NIL
<b>Total</b>					<b>9</b>	<b>1</b>	<b>12</b>	<b>14</b>	<b>18.5</b>	<b>36</b>	

**SEMESTER - 2**


1	19MT2102	Mathematics for Engineers	SCH CORE	BS	3	0	0	0	3	3	NIL
2	19SC1203	Object Oriented Programming	SCH ELEC	ES	3	0	2	3	4.75	8	NIL
3	19SC1202	Data Structures	SCH CORE	ES	3	0	2	3	4.75	8	NIL
4	19UC1202	English Proficiency	UNI CORE	HS	0	0	4	0	2	4	NIL
5	19EC1202	Computer Organization & Architecture	SCH CORE	PC	2	0	0	0	2	2	NIL
6	19EC1213	BASIC ELECTRICAL AND ELECTONICS ENGINEERING	DEP CORE	ES	3	0	0	0	3	3	NIL
7	19SC1209	DESIGN TOOLS WORKSHOP - II	SCH ELEC	ES	0	0	4	0	2	4	NIL
<b>Total</b>					<b>14</b>	<b>0</b>	<b>12</b>	<b>6</b>	<b>21.5</b>	<b>32</b>	

**SEMESTER - 3**

1	19EC2103	Analog Electronic Circuit Design	DEP CORE	PC	3	0	2	2	4.5	7	NIL
2	19EC2104	Communication Signals & System Design	DEP CORE	PC	3	1	0	0	4	4	NIL
3	19EC2105	Embedded Controllers	DEP CORE	PC	2	0	3	2	4	7	NIL
4	19EC2106	Analog and Digital Communication	DEP CORE	PC	3	0	3	0	4.5	6	NIL
5	19EC2111	ELECTRONIC WORKSHOP-II (ELECTRONIC SYSTEM DESIGN WORKSHOP)	SCH ELEC	ES	1	0	2	2	2.5	5	NIL
6	19EC2112	IT WORKSHOP-I (HTML,XML,WEB DESIGN)	SCH ELEC	ES	1	0	2	0	2	3	NIL
7	19UC2103	Professional Communication Skills	UNI CORE	HS	0	0	4	0	2	4	NIL
8	19TS4001	Skilling for Engineers-1	SCH ELEC	SK	0	0	0	4	1	1	NIL
9		Desing Thinking and Innovaiton-1	SCH CORE	BS	1	0	0	4	2	5	NIL
<b>Total</b>					<b>14</b>	<b>1</b>	<b>16</b>	<b>14</b>	<b>26.5</b>	<b>42</b>	

**SEMESTER - 4**

1	19EC2207	Electromagnetic fields & Applications	DEP CORE	PC	3	1	0	0	4	4	NIL
5	19EC2208	Digital Signal Processing	DEP CORE	PC	3	0	2	0	4	5	NIL
3	19EC2209	Statistics, AI, ANN-Basic course	DEP CORE	PC	3	0	0	2	3.5	5	NIL
	19EC2223	Introduction to AI & ANN Tools and Applications	DEP CORE	PC	3	0	0	0	3	3	NIL
2	19EC2210	Data Networks & Protocols	DEP CORE	PC	3	0	2	0	4	5	NIL
4	19EC2214	ELECTRONIC WORKSHOP-III (IOT Workshop)	SCH ELEC	ES	1	0	0	4	2	5	NIL
6	19UC2204	Aptitude Builder-I	UNI CORE	HS	0	0	4	0	2	4	NIL
7		Professional Elective-1	DEP ELEC	PE	3	0	0	2	3.5	5	NIL
8	19TS4002	Skilling for Engineers-2	SCH ELEC	SK	0	0	0	4	1	4	NIL
		Desing Thinking and Innovaiton-1	SCH CORE	BS	1	0	0	4	2	5	NIL
<b>Total</b>					<b>17</b>	<b>1</b>	<b>8</b>	<b>16</b>	<b>26.0</b>	<b>42</b>	

  
**Dr. M. SUMA**  
 Professor & Head  
 Department of ECE  
**KLEF**  
 Green Fields, Vaddeswaram,  
 Guntur Dist., A.P. PIN: 522 502



SEMESTER - 5											
1		Science Elective-1	SCH ELEC	BS	3	0	2	0	4	5	NIL
2		Flexi Core-1	SCH CORE	FC	3	0	2	0	4	5	NIL
3		Flexi Core-2	FLEXI CORE	FC	3	0	2	0	4	5	NIL
4		Professional Elective-2	FLEXI CORE	PE	3	0	0	0	3	3	NIL
5		Professional Elective-3	DEP ELEC	PE	3	0	0	0	3	3	NIL
6	19UC3105	Aptitude Builder-II	DEP ELEC	HS	0	0	4	0	2	4	NIL
7		Open Elective-1 (Advanced Learners)	UNI CORE	OE	3	0	0	0		3	NIL
8	19TS4003	SKILLING FOR ENGINEERS-3	OPEN ELE	SK	0	0	0	4	1	4	NIL
9	19TS4005	TECHNICAL PROFICIENCY & TRAINING-1	SCH ELEC	SK	0	0	0	4	1	4	NIL
10	19IE2246	Industrial Training	SCH ELEC	PR	0	0	0	0	2	0	NIL
<b>Total</b>					<b>18</b>	<b>0</b>	<b>10</b>	<b>8</b>	<b>24.0</b>	<b>36</b>	
SEMESTER - 6											
1		Science Elective-2	SCH CORE	BS	3	0	2	0	4	5	
2		Flexi Core-3	FLEXI CORE	FC	3	0	2	0	4	5	
3		Professional Elective-4	DEP ELEC	PE	3	0	0	0	3	3	NIL
4		Professional Elective-5	DEP ELEC	PE	3	0	0	0	3	3	NIL
5		Professional Elective-6	DEP ELEC	PE	3	0	0	0	3	3	NIL
6	19IE3247	Term Paper	SCH CORE	PR	0	0	4	0	2	4	NIL
7	19UC3206	Campus to Corporate	UNI CORE	HS	0	0	4	0	2	4	NIL
8	19TS4004	SKILLING FOR ENGINEERS-4	SCH CORE	SK	0	0	0	4	1	1	NIL
9	19TS4006	TECHNICAL PROFICIENCY & TRAINING-2	SCH ELEC	SK	0	0	0	4	1	4	
<b>Total</b>					<b>15</b>	<b>0</b>	<b>12</b>	<b>8</b>	<b>23.0</b>	<b>32</b>	
SEMESTER - 7											
1		Open Elective-1	UNI ELEC	OE	3	0	0	0	3	3	NIL
2		Open Elective-2	UNI ELEC	OE	3	0	0	0	3	3	NIL
3		Open Elective-3	UNI ELEC	OE	3	0	0	0	3	3	NIL
4	19UC0007	Indian Heritage and Culture	UNI CORE	HS	0	0	0	0	0	0	NIL
5	19UC0008	Indian Constitution	UNI CORE	HS	2	0	0	0	0	2	NIL
6	19IE4048/19IE4050	Project (Part I) / Practice School	SCH CORE	PR	0	0	12	0	6	12	NIL
<b>Total</b>					<b>11</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>15.0</b>	<b>23</b>	
SEMESTER - 8											
1		Foreign/Non-Native Language Elective	UNI ELEC	OE	2	0	0	0	2	2	NIL
2		Management Elective	UNI ELEC	OE	3	0	0	0	3	3	NIL
3	19UC0010	Universal Human Values & Professional Ethics	UNI CORE	HS	2	0	0	0	0	2	NIL
4	19UC0011	Entrepreneurship	UNI CORE	HS	2	0	0	0	2	2	NIL
5	19UC0009	Ecology & Environment	SCH CORE	HS	2	0	0	0	0	2	NIL
6	19BT1001	Biology for Engineers	SCH CORE	BS	2	0	0	0	0	2	NIL
7	19IE4048/19IE4050	Project (Part II) / Practice School/ Internship	SCH CORE	PR	0	0	12	0	6	12	NIL
<b>Total</b>					<b>13</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13.0</b>	<b>13</b>	
<b>GRAND TOTAL</b>					<b>90</b>	<b>7</b>	<b>98</b>	<b>128</b>	<b>167.5</b>	<b>321</b>	

  
HOD-ECE

DEAN-ACADEMICS

**Dr. M. SUMA**  
Professor & Head  
Department of ECE  
**K L E F**  
Green Fields, Vaddeswaram,  
Guntur Dist., A.P. PIN: 522 502.

**KLEF**  
**Dept. of Electronics and Communication Engineering**  
**M. Tech VLSI**  
**AY. 2020-21**

**Semester-I**

S. No.	Course Code	Course Title	Periods				Credits
			L	T	P	S	
1	20 EC 5128	MOS Circuit Design	3	1	2	0	5
2	20 EC 5129	Analog IC Design & Design for Testability	2	2	2	0	5
3	20 EC 5130	ASIC & FPGA Design	3	0	2	0	4
4	20 EC 5131	IC Fabrication Technology	3	0	0	0	3
5		Elective – 1	3	0	0	0	3
6		Elective - 2	3	0	0	0	3
7	20 IE 5149	Seminar	0	0	4	0	2
8	20 TS 5101	Technical Skilling-I (HDL)	0	0	0	8	2
<b>Total</b>			<b>17</b>	<b>3</b>	<b>10</b>	<b>8</b>	<b>27</b>

**Semester-II**

S. No.	Course Code	Course Title	Periods				Credits
			L	T	P	S	
1	20 EC 5232	RF IC Design & Introduction to mm RADAR	3	1	2	0	5
2	20 EC 5233	Low power VLSI System Design	3	0	2	0	4
3	20 EC 5234	Algorithm for VLSI Design Automation	3	1	2	0	5
4	20 EC 5235	Testing of VLSI Circuits	3	0	0	0	3
5		Elective – 3	3	0	0	0	3
6		Elective - 4	3	0	0	0	3
7	20 IE 5250	Term Paper	0	0	4	0	2
8	20 TS 5102	Technical Skilling-II (Design for Testability)	0	0	0	8	2
<b>Total</b>			<b>18</b>	<b>2</b>	<b>10</b>	<b>8</b>	<b>27</b>

**Semester-III&IV**

S. No.	Course Code	Course Title	Periods				Credits
			L	T	P	S	
1	20 IE 6050	Dissertation	0	0	72	0	36

**Total Program Credits**

**90**


S. No.	Course Code	Course Title	Periods				Credits
			L	T	P	S	

**Elective-1**

1	20 EC 51Q1	Embedded System Design	3	0	0	0	3
2	20 EC 51Q2	VLSI Signal Processing	3	0	0	0	3
3	20 EC 51Q3	CMOS Mixed Signal Circuits	3	0	0	0	3
4	20 EC 51Q4	Nano Electronics	3	0	0	0	3
5	20 EC 51Q5	CAD Tools for VLSI	3	0	0	0	3

**Elective-2**

1	20 EC 51R1	Deep learning with Artificial Intelligence	3	0	0	0	3
2	20 EC 51R2	Bi-CMOS Technology & Applications	3	0	0	0	3
3	20 EC 51R3	Semiconductor Device Modeling	3	0	0	0	3
4	20 EC 51R4	Memory Design and Testing	3	0	0	0	3
5	20 EC 51R5	VLSI Circuits for Biomedical Applications	3	0	0	0	3

  
**Dr. M. SUMAN**  
 Professor & Head  
 Department of ECE  
**KLEF**  
 Green Fields, Vaddeswaram.  
 Guntur Dist., A.P. PIN: 522 502.

Elective-3							
1	20 EC 52S1	System on Chip Design	3	0	0	0	3
2	20 EC 52S2	VLSI Data Converters	3	0	0	0	3
3	20 EC 52S3	MEMS System Design	3	0	0	0	3
4	20 EC 52S4	VLSI for Wireless Communication	3	0	0	0	3
5	20 EC 52S5	Reconfigurable Computing	3	0	0	0	3
Elective-4							
1	20 EC 52T1	Optimization Techniques and Applications in VLSI Design	3	0	0	0	3
2	20 EC 52T2	Advanced Digital IC Design	3	0	0	0	3
3	20 EC 52T3	Network on Chip	3	0	0	0	3
4	20 EC 52T4	Cryptography and Network Security	3	0	0	0	3
5	20 EC 52T5	Advanced Computer Architecture Design	3	0	0	0	3

*M. Suman*

**Dr. M. SUMAN**  
 Professor & Head  
 Department of ECE  
**K L E F**  
 Green Fields, Vaddeswaram.  
 Guntur Dist., A.P. PIN: 522 502

**KLEF**  
**Dept. of Electronics and Communication Engineering**  
**M. Tech RADAR & Communications**  
**AY. 2020-21**

**Semester-I**

S. No.	Course Code	Course Title	Periods				Credits
			L	T	P	S	
1	20 EC 5101	Modern Digital and Wireless Communication	3	1	2	0	5
2	20 EC 5102	Microwave and Millimetric wave Circuits	3	1	2	0	5
3	20 EC 5103	RADAR Engineering & mm Radar	3	0	0	0	3
4	20 EC 5104	RF System and Antenna Design	3	1	0	0	4
5		Elective - 1	3	0	0	0	3
6		Elective - 2	3	0	0	0	3
7	20 IE 5149	Seminar	0	0	4	0	2
8	20 TS 5201	Technical Skilling-I (MatLab*, AWR*)	0	0	0	8	2
<b>Total</b>			<b>18</b>	<b>3</b>	<b>8</b>	<b>8</b>	<b>27</b>

**Semester-II**

S. No.	Course Code	Course Title	Periods				Credits
			L	T	P	S	
1	20 EC 5205	4G, 5G, and Modern Wireless Technologies	3	1	2	0	5
2	20 EC 5206	Advanced Communication Systems & Networks	3	0	2	0	4
3	20 EC 5207	Modern Radar Systems and Autonomous Vehicles	3	1	0	0	4
4	20 EC 5208	Optical Networks & Satellite Communications	3	0	0	0	3
5		Elective - 3	3	0	0	2	3.5
6		Elective - 4	3	0	0	2	3.5
7	20 IE 5250	Term Paper	0	0	4	0	2
8	20 TS 5202	Technical Skilling-II (MatLab*, AWR*)	0	0	0	8	2
<b>Total</b>			<b>18</b>	<b>2</b>	<b>8</b>	<b>10</b>	<b>27</b>

**Semester-III&IV**

S. No.	Course Code	Course Title	Periods				Credits
			L	T	P	S	
1	20 IE 6050	Dissertation	0	0	72	0	36
<b>Total Program Credits</b>						<b>90</b>	

S. No.	Course Code	Course Title	Periods				Credits
			L	T	P	S	
<b>Elective-1</b>							
1	20 EC 51A1	EMI/EMC & Electronic Warfare	3	0	0	0	3
2	20 EC 51A2	Microwave Semi Conductor Devices	3	0	0	0	3
3	20 EC 51A3	Smart Antennas	3	0	0	0	3
4	20 EC 51A4	Embedded Systems & VLSI for Wireless Communic	3	0	0	0	3
<b>Elective-2</b>							
1	20 EC 51B1	Phased Array Systems	3	0	0	0	3
2	20 EC 51B2	GPS & Global Navigation Satellite System	3	0	0	0	3
3	20 EC 51B3	Next Generation Networking & Communication Tec	3	0	0	0	3
4	20 EC 51B4	Deep learning with Artificial Intelligence	3	0	0	0	3
<b>Elective-3</b>							
1	20 EC 52C1	Estimation & Detection Theory	3	0	0	0	3
2	20 EC 52C2	Radar Signal Processing & System	3	0	0	0	3
3	20 EC 52C3	High Performance Communication Networking	3	0	0	0	3
4	20 EC 52C4	Cryptography & Networking Security	3	0	0	0	3
<b>Elective-4</b>							
1	20 EC 52D1	Machine Learning & Soft Computing Applications i	3	0	0	0	3
2	20 EC 52D2	Cloud Computing & Cyber Security	3	0	0	0	3
3	20 EC 52D3	Remote Sensing & Sensors	3	0	0	0	3
4	20 EC 52D4	Automotive Electronics & Avionics	3	0	0	0	3

*AP*  
*Prasad*