



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577716, 2576129.

The Dean -Academics
K L Deemed University
Vaddeswaram

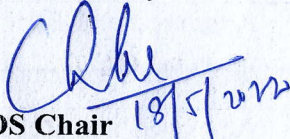
Dear Sir,

Sub: Minutes of the 18th BOS meeting-Department of Civil Engineering held on 18th May 2022 held online from 10:00 AM to 12:30 PM Reg.,

The 18th BOS of Department of civil engineering is conducted on 18-05-2022 in online mode from 10:00 AM to 12:30 PM. The details of minutes and annexures of BoS conducted is attached below.

Thanking You,

Yours sincerely


BOS Chair
Chairman BOS

Head
Department of Civil Engineering
Koneru Lakshmalah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.


Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

Minutes of the 18th BOS meeting, Civil Engineering Department held on 18th May 2022 held online from 10:00 AM to 12:30 PM

AGENDA ITEMS

Point No.	Agenda Item	Resolution
CE_BOS_01	To consider and approve the suggestions and feedback received from stake holders in DAC for the newly added courses proposed for the curriculum of 2022-23 admitted batch of B.Tech and M.Tech programmes, along with some minor changes in the curriculum of 2021-22 for the admitted B.Tech batch	Approved and Recommended to XXXV Academic council.
CE_BOS_02	To consider the courses related to HONORS and MINORS degree program to be offered in 2021-22, 2022-23 admitted batch students.	Approved and Recommended to XXXV Academic council.
CE_BOS_03	To consider and approve the revisions proposed by the course coordinators in syllabus / Course Outcomes /experiments / teaching pedagogies for the courses to be offered in 2021-22, 2022-23 odd and even semesters.	Approved and Recommended to XXXV Academic council.
CE_BOS_04	To approve the points discussed in DAC meeting	Approved and Recommended to XXXV Academic council.
CE_BOS_05	To approve the feedback from stakeholders regarding 2022-23 batch admitted students	Approved and Recommended to XXXV Academic council.
CE_BOS_06	To approve SAC activities proposed for 2021-22 and 2022-23 admitted students.	Approved and Recommended to XXXV Academic council
CE_BoS_07	To approve the work in lieu courses and AICTE/ SLA PARAG Program for 2021-22 and 2022-23 admitted students	Approved and Recommended to XXXV Academic council
CE_BoS_08	To consider and approve the pre Ph.D courses for July-2022 admitted batch of Ph.D	Approved and Recommended to XXXV Academic council
CE_BoS_09	To consider and approve the curriculum structure for M.Tech SE, CTM and GTE 2022-23 admitted students	Approved and Recommended to XXXV Academic council


Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESARAM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

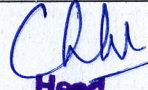
Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

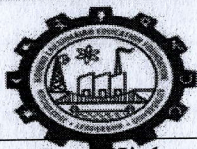
Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 29-36-38, Museum Road, Governorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2527715, 2576129.

Point No.	Agenda Item	Resolution
CE_BOS_10	To approve the points discussed in DAC-2 meeting	Approved and Recommended to XXXV Academic council.
CE_BOS_11	To Consider and Identify the high package companies visiting IITs/IIMs	Approved and Recommended to XXXV Academic council.
CE_BOS_12	To consider and Identify company wise job roles	Approved and Recommended to XXXV Academic council.
CE_BOS_13	To consider and Identify skill sets needed for each Job role & mapping with curriculum	Approved and Recommended to XXXV Academic council.
CE_BOS_14	To consider and Identify Cluster/Cohort wise Industrial requirements	Approved and Recommended to XXXV Academic council.
CE_BOS_15	To consider and Identify Job role wise VQR skills & mapping with curriculum	Approved and Recommended to XXXV Academic council
CE_BoS_16	To consider and Identify Academic Regulations for Y21 and Y22 admitted students	Approved and Recommended to XXXV Academic council
CE_BoS_17	To consider the Semester wise proposed changes	Approved and Recommended to XXXV Academic council
CE_BoS_18	To consider the list of subjects in to various buckets	Approved and Recommended to XXXV Academic council
CE_BoS_19	To consider Cohort wise subjects	Approved and Recommended to XXXV Academic council
CE_BoS_20	To consider the mapping of CO, POs, PSOs, etc., with PEOs	Approved and Recommended to XXXV Academic council
CE_BoS_21	To consider the list Skilling subjects with respect to cohorts	Approved and Recommended to XXXV Academic council
CE_BoS_22	To consider the list of tools mapped to courses, specializations and to the Cohorts	Approved and Recommended to XXXV Academic council
CE_BoS_23	To consider and Identify the Global Certifications and mapping the skill sets	Approved and Recommended to XXXV Academic council
CE_BoS_24	To consider the Benchmarking of syllabi with International Universities	Approved and Recommended to XXXV Academic council
CE_BoS_25	To consider the Benchmarking of syllabi with	Approved and Recommended


Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500123, 2577715, 2576129.

	Higher Studies requirements like GATE	to XXXV Academic council
CE_BoS_26	To consider the Benchmarking of syllabi based on Professional Society Bodies	Approved and Recommended to XXXV Academic council
CE_BoS_27	To consider and identify the term Paper and project courses leading to research publication	Approved and Recommended to XXXV Academic council

BOS MEMBERS & EXTERNAL STAKEHOLDERS

S.No.	Name	Designation of the person	Position of the person in the meeting
1.	Dr. CH. Hanumantha Rao	BOS Chairman & HOD	Chairman
2.	Dr. Mallikarjuna Rao	Professor IIT Guwahati	Academic Expert
3.	Er. M. H. Reddy	DEE AP CRDA	Industry Expert
4.	Er. K. Siva Ram Prasad	Consulting Engineer	Industry Expert
5.	D. Naveen Kumar	Asst. Engineer, Building	Alumni Member
6.	P. Prabhu Teja	Asst.Executive Engineer	Alumni Member
7.	Dr. B. Kameswara Rao	Professor	Internal Member
8.	Dr. P.Poluraju	Professor	Internal Member
9.	Dr. A. Aravindan	Professor	Internal Member
10.	Dr. A. V. Rao	Professor	Internal Member
11.	Dr. Sanjeet Kumar	Associate Professor	Internal Member
12.	Dr. Umesh K. Singh	Associate Professor	Internal Member
13.	Dr. Ashwin Raut	Associate Professor	Internal Member
14.	Dr. Hamim Jeelani Syed	Assistant Professor	Internal Member
15.	Dr. Ch. Surya Prakash	Assistant Professor	Internal Member
16.	Mr. K. Shyam Chamberlin	Assistant Professor	Internal Member
17.	Mr. K. Hemantha Raja	Deputy HoD-CE & Assistant Professor	Internal Member
18.	Mr. B. G.Rahul	Assistant Professor	Alumni Incharge
19.	Mr.G. Sri Harsha	Assistant Professor	Professor In-charge

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, GUNTUR DIST

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, GUNTUR DIST



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

AGENDA and RESOLUTIONS

Detailed Description of Resolutions Made:

CE_BOS_01: Curriculum for 2022-23 (upcoming batch) B.Tech & M.Tech and the minor changes proposed in curriculum of 2021-22 admitted batches have been approved by BoS members and recommended to XXXV Academic council. Course structure of 2022-23, 2021-22 batches are available in **Annexure-1**

CE_BOS_02: A new program for B.Tech MINORS entitled Infrastructure Management is proposed for 2021-22 and 2022-23 admitted students and the courses proposed for B.Tech HONORS Degree program have been approved by BoS members and recommended to XXXV Academic council. List of courses for B.Tech HONORS and MINORS are available in **Annexure-2**

CE_BOS_03: The revisions proposed by the course coordinators in syllabus /experiments / teaching pedagogies for the courses to be offered in 2021-22, 2022-23 admitted batches have been approved by BoS members and recommended to XXXV Academic council. Modified Syllabi of 2022-23, 2021-22, 2019-20 batches have been furnished in **Annexure-3**

CE_BOS_04: The points discussed in DAC meeting were approved by BoS members and recommended to XXXV Academic council. DAC minutes and proofs are mentioned in **Annexure-4**

CE_BOS_5: Feedback from stakeholders regarding 2021-22 and 2022-23 admitted batch and feedback on DAC minutes have been approved by BoS members and recommended to XXXV Academic council. Action Taken Report is attached **Annexure-5**

CE_BOS_6: Proposal for SAC activities as a part of informal learning for 2021-22 and 2022-23 batches have been approved by BoS members and recommended to XXXV Academic council and the outcomes, expected activities and contributions are available in **Annexure -6.**

CE_BOS_7: Proposal for Work in lieu courses and AICTE SLA – PARAKH program for 2021-22 and 2022-23 batches have been approved by BoS members and recommended to XXXV Academic council and the outcomes, expected activities, evaluation and contributions are available in **Annexure -7.**

Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Participants

Name	Join/Le..
Mallikarjuna	09:59 /
Mallikarjuna	10:02 /
Hanumanthar...	10:04 /
Mallikarjuna	10:05 /
ksr prasad	10:05 /
Mallikarjuna	10:06 /
Hanumanthar...	10:06 /
CR041	10:07 /
Sanjeet Kumar	10:08 /

11:29

2:19:38

1x

DEPARTMENT OF CIVIL ENGINEERING

18TH BOARD OF STUDIES MEETING

Agenda Items:

1. Stakeholders feedback and modifications required in designing Syllabus and Structure
2. Course Closure meetings of A.Y.2021-22 odd sem and action taken on the same while designing the structure and syllabus
3. Y21 Tentative Structure and syllabus along with Honor and Minor tracks.
4. Y22 Tentative Structure and syllabus along with Honor and Minor tracks.
5. PDD of Y22 and Y21 structures along with Specialisations, Honor and Minor tracks
6. List of courses focussing on Skill Development for Y21 and Y22 admitted students

Participants

Name	Jo
Mallikarjuna	09
Mallikarjuna	10
Hanumanthar...	10
Mallikarjuna	10
ksr prasad	10
Mallikarjuna	10
Hanumanthar...	10
CR041	10
Sanjeet Kumar	10

26:51

2:19:38

1x

SLNo.	Department	Name of the Programme	Recommendations / Suggestion(s)	Analysis	Action Taken	DAC No. Proof	Date
1	CE	B.Tech	Sequence of the Courses	In the curriculum of 2nd year skilling or Internship required in 3rd Year.	As per the request its modified and updated to 3rd Semester.	Attached	01-02-2022
2	CE	B.Tech	Sequence of the units in the course.	The sequence of the unit is depend upon GATE and APPSC syllabus.	As per the request its modified and updated to 2nd Semester.	Attached	01-02-2022
3	CE	B.Tech	Include stress analysis in prestressed structure	Analysed in detail about the stresses	As per the request it's modified and implemented in UNFT - 4, PE	Attached	07-02-2022
4	CE	B.Tech	Staad.Pig design in steel structures	Laboratory is not available to DNS course Foundation structures	Decided to add in skill related course As per the request it's	Attached	07-02-2022

Participants

Sanjeet Kumar	10
Dr. Ashwin R...	10
G SRI HARSHA	10
Dr. Surya Pra...	10
Dr. Surya Pra...	10
Dr. Ashwin R...	10
ksr prasad	10
CR042	10
CR040	10
CR040	10

32:45

2:19:38

1x

Sl No	Course Category	Short Name	courses	Minimum Credits	Contact Hours
1	Humanities & Social Sciences	HSS	6	12.0	20
2	Basic Sciences	BS	8	27.5	40
3	Engineering Sciences	ES	5	18.5	34
4	Professional Core	PC	15	56.0	73
5	Flexi Core	FC	0	0.0	0
6	Professional Electives	PE	5	15.0	15
7	Project Courses	PR	10	19.0	76
8	Open Electives	OE	5	14.0	14

Chh
Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWAREM, Guntur Dist.

Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 20 36 38, Museum Road, Govemorpeta, Vijayawada - 520 002 Ph: +91 - 866 - 3500122, 2577715, 2576129.

AGENDA and RESOLUTIONS

Detailed Description of Resolutions Made:

CE_BOS_01: Curriculum for 2022-23 (upcoming batch) B.Tech & M.Tech and the minor changes proposed in curriculum of 2021-22 admitted batches have been approved by BoS members and recommended to XXXV Academic council. Course structure of 2022-23, 2021-22 batches are available in **Annexure-1**

CE_BOS_02: A new program for B.Tech MINORS entitled Infrastructure Management is proposed for 2021-22 and 2022-23 admitted students and the courses proposed for B.Tech HONORS Degree program have been approved by BoS members and recommended to XXXV Academic council. List of courses for B.Tech HONORS and MINORS are available in **Annexure-2**

CE_BOS_03: The revisions proposed by the course coordinators in syllabus /experiments / teaching pedagogies for the courses to be offered in 2021-22, 2022-23 admitted batches have been approved by BoS members and recommended to XXXV Academic council. Modified Syllabi of 2022-23, 2021-22, 2019-20 batches have been furnished in **Annexure-3**

CE_BOS_04: The points discussed in DAC meeting were approved by BoS members and recommended to XXXV Academic council. DAC minutes and proofs are mentioned in **Annexure-4**

CE_BOS_5: Feedback from stakeholders regarding 2021-22 and 2022-23 admitted batch and feedback on DAC minutes have been approved by BoS members and recommended to XXXV Academic council. Action Taken Report is attached **Annexure-5**

CE_BOS_6: Proposal for SAC activities as a part of informal learning for 2021-22 and 2022-23 batches have been approved by BoS members and recommended to XXXV Academic council and the outcomes, expected activities and contributions are available in **Annexure -6.**

CE_BOS_7: Proposal for Work in lieu courses and AICTE SLA – PARAKH program for 2021-22 and 2022-23 batches have been approved by BoS members and recommended to XXXV Academic council and the outcomes, expected activities, evaluation and contributions are available in **Annexure -7.**

Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWARAM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

CE_BOS_8: Pre Ph D courses and syllabi for July 2022 admitted batch of Ph D have been

approved by BoS members and recommended to XXXV Academic council and the corresponding syllabus and list of courses have been attached in **Annexure -8**.

CE_BOS_9: Curriculum structures for M.Tech Structural Engineering, Construction Technology and Management and Geotechnical Engineering for 2022-23 admitted batch have been approved by BoS members and recommended to XXXV Academic council and structure is attached in **Annexure -9**.

CE_BOS_10: The points discussed in DAC 2 meeting were approved by BoS members and recommended to XXXV Academic council. DAC minutes and proofs are mentioned in **Annexure-10**.

CE_BOS_11: The list of companies with highest and average packages visiting various premiere institutions like IITs for the past several years are mentioned in **Annexure-11** were approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_12: The company wise job roles and its importance for the students and meeting with the curriculum were identified and approved by BOS and considered for recommendation to XXXV academic council. Details are mentioned in **Annexure-12**

CE_BOS_13: The skill sets needed for each job and meeting with the curriculum were identified and approved by BOS and considered for recommendation to XXXV academic council. Details are mentioned in **Annexure-13**.

CE_BOS_14: The clusterwise industrial requirements were identified and mentioned in **Annexure-14** and approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_15: The company wise job roles with respect to VQR skills and its importance for the students and meeting with the curriculum were identified and approved by BOS and considered for recommendation to XXXV academic council. Details are mentioned in **Annexure-15**

CE_BOS_16: The Academic Regulations for Y21 and Y22 admitted students were identified as mentioned in **Annexure-16** to award the degree were approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_17: All the changes proposed semester wise were mentioned in **Annexure-17** are approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_18: All the courses have been categorized in to buckets viz Basic sciences, HSS, PC, PE, PR as per AICTE regulations as mentioned in **Annexure-18** To consider the list of subjects in to various buckets were approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_19: The cohort wise subjects were identified and mentioned in **Annexure-19** and approved by BOS and considered for recommendation to XXXV academic council.

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

CE_BOS_20: Mapping of COs, POs, PSOs with PEOs as mentioned in Annexure-20 were

approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_21: The list of Skilling subjects with respect to cohorts were identified as mentioned in Annexure-21 were approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_22: The list of tools mapped to courses, specializations and to respective cohorts were identified as mentioned in Annexure-22 and approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_23: Global Certifications with respect to core civil engineering were identified as mentioned in Annexure-23 and mapped the skill sets were approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_24: Benchmarking of syllabi is done with International Universities as mentioned in Annexure 24 approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_25: Benchmarking of syllabi is done with higher studies requirements like GATE as mentioned in Annexure 25 approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_26: Benchmarking of syllabi is done with ASCE professional society body as mentioned in Annexure 26 approved by BOS and considered for recommendation to XXXV academic council.

CE_BOS_27: Term Paper and list of various project courses leading to research publication were identified as mentioned in Annexure 27 approved by BOS and considered for recommendation to XXXV academic council.


Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576128.

Detailed Description on the discussion happened in meeting for passing the resolution (Annexure number and Point number in the Annexure)

Point No	Resolution Passed	Detailed Description	Annex. No
1	Basics concepts were incorporated in the introduction part in each professional core courses	Dr. Mallikarjuna Rao (Professor IIT Guwahati)suggested to cover the basic concepts in professional core courses and all members agreed for the same	1
2	Weightage is to be given to transportation engineering domain courses and one skill component is also added	Er. K. Siva Ram Prasad (Industry expert) suggested to give more weightage for transportation engineering domain also as lot of works related to transportation and all members agreed for the same	1
3	Pavement materials & Design and other construction materials were added in one of the elective in transportation engineering	Er. K. Siva Ram Prasad (Industry expert) suggested to make students to be strong in pavement materials and other construction materials and to incorporate all innovative materials being used in construction in the syllabus and all members agreed for the same	1
4	Two standard textbooks are added for every course	Dr. Mallikarjuna Rao (Professor IIT Guwahati)suggested to maintain two standard textbooks, and all agreed for the same	1
5	Communication skills related courses are introduced in the curriculum	Mr.D.Naveen Kumar (Alumni) suggested to keep communication skills related courses and professor incharge academics replied that they are available already.	1
6	Pre fabricated structures as elective is introduced in M.Tech S.E.	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested to include pre fabricated structures as one electivewith precast as one chapter and all members agreed for the same.	1
7	Foundation Engineering is added as elective in place of Advanced Foundation Engineering	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested to include Foundation Engineering as elective in place of Advanced Foundation Engineering, also add relevant IS codes in the concerned courses and all members agreed for the same.	1
8	Forensics in Civil Engineering is added as elective and one of the chapter as Contraction of pre cast composite floor is added	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested to include Forensics in Civil Engineering as elective and one of the chapter should be of Contraction of pre cast	1

Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 29-36-38, Museum Road, Govenorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2577715, 2576129.

		composite floor and all members agreed for the same	
9	SSR is added in the QSE course	Alumni Mr.Prabhu Teja suggested to add SSR in QSE course and all members agreed for the same	I
10	DGPS is added in Surveying course	Alumni Mr.Prabhu Teja suggested to add DGPS in Surveying course and all members agreed for the same	I
11	Design thinking and innovation 1 &2 and Computational thinking design are added in First year for Y22Batch	Dr. Mallikarjuna Rao (Professor IIT Guwahati)suggested that Introduction to Design", Design thinking and innovation 1 &2 and Computational thinking design will be offered in First Year odd semester for 2020 admitted batchandall members agreed for the same	I
12	"HYDRATION,POROSITY,& STRENGTH OF CEMENTITIOUS MATERIAL" has been added as elective course in M.Tech – SE Curriculum as per recommendations	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested that "HYDRATION, POROSITY & STRENGTH OF CEMENTITIOUS MATERIAL" course is added in First year odd semester for 2022-23 admitted batch and all members agreed for the same.	I
13	"Continuum Mechanics" has been added as elective course in M.Tech – SE Curriculum as per recommendations	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested that the course Continuum Mechanics course is added in First year odd semester for 2022-23 admitted batch and all members agreed for the same.	I
14	"STRUCTURAL RELIABILITY" has been added as elective course in M.Tech – SE Curriculum as per recommendations	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested that the course "STRUCTURAL RELIABILITY" courses should be offered in First and First Semesters for 2022-23 admitted batchand all members agreed for the same.	I
15	"Advanced design of Steel Structures" has been added as elective course in M.Tech – SE Curriculum as per recommendations	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested that the course "Advanced design of Steel Structures" courses should be offered in First and First Semesters for 2022-23 admitted batchand all members agreed for the same.	I
16	"DESIGN OF CONNECTIONS IN STEEL"	Dr. Mallikarjuna Rao (Professor IIT	I

Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWARAM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

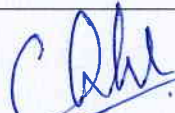
Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 29-36-38, Museum Road, Guntur, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2577715, 2576129.

	STRUCTURES ” has been added as elective course in M.Tech – SE Curriculum as per recommendations.	Guwahati) suggested that The course“ DESIGN OF CONNECTIONS IN STEEL STRUCTURES ” courses should be offered in First and First Semesters for 2022-23 admitted batchand all members agreed for the same.	
17	Advanced Design of Reinforced concrete structures ” has been added as elective course in M.Tech – SE Curriculum as per recommendations.	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested that The course “ Advanced Design of Reinforced concrete structures ” should be added as elective courseand all members agreed for the same.	I
18	The new professional elective course “ SOIL STRUCTURE INTERACTION ”, was added in M.Tech SE.	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested that the course “ SOIL STRUCTURE INTERACTION ” should be introduced as an elective course and all members agreed for the same.	I
19	The new professional elective course “ Forensics in Structural Engineering ”, was added in M.Tech SE.	Dr. Mallikarjuna Rao (Professor IIT Guwahati) suggested that the syllabus in the “ Forensics in Structural Engineering ” should be introduced as an elective course and all members agreed for the same.	I
20	The new professional elective course “ Sustainable Engineering Concepts and Life Cycle Analysis ”, was added in M.Tech CTM.	Er. K. Siva Ram Prasad (Industry expert) suggested to introduce a new course titled “ Sustainable Engineering Concepts and Life Cycle Analysis ” in the first semester of M. Tech-C.T.M and all members agreed for the same	I
21	The new professional elective course “ Lean construction Management ”, was added in M.Tech CTM.	Er. K. Siva Ram Prasad (Industry expert) suggested introducing a new course titled “ Lean construction Management ” in the first semester of M. Tech-C.T.M and all members agreed for the same.	I
22	The new professional elective course “ INFRASTRUCTURE PLANNING AND MANAGERMENTS ”, was added in M.Tech CTM.	Er. K. Siva Ram Prasad (Industry expert) suggested to introduce a new course titled “ INFRASTRUCTURE PLANNING AND MANAGERMENTS ” in the first semester of M. Tech-C.T.M and all members agreed for the same	I


Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWARAM, GUNTUR DIST



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 29-36-38, Museum Road, Govenorpet, Vijayawada - 520 002. Ph: +91 - 866 - 3500122, 2577715, 2578129.

23	The new professional elective course "Advanced construction Technology" , was added in M.Tech CTM.	Er. K. Siva Ram Prasad (Industry expert) suggested To introduce new course "Advanced construction Technology" as professional elective course in the First semester of M. Tech C.T.M and all members agreed for the same	
24	"The new professional elective course "CHARACTERIZATION OF CONSTRUCTION MATERIALS" , was added In M.Tech CTM.	Mr.H.M.Reddy (Industry expert) suggested that introduce new course named "CHARACTERIZATION OF CONSTRUCTION MATERIALS" is be introduced in Second semester of C.T.M all members agreed for the same in Second semester.	I
25	The new professional elective course "Drone Technology in Construction" , was added in M.Tech CTM.	Mr.H.M.Reddy (Industry expert) suggested Introducing the new professional elective course "Drone Technology in Construction" and all members agreed for the same in Second semester.	I
26	The new professional elective course "PRINCIPLES OF CONSTRUCTION MANAGEMENT" , was added in M.Tech CTM.	Mr.H.M.Reddy (Industry expert) suggested to Introduced the new professional elective course "PRINCIPLES OF CONSTRUCTION MANAGEMENT" and all members agreed for the same in Second semester.	I
27	The new professional elective course "IOT Applications in Construction" , was added in M.Tech CTM.	Mr.H.M.Reddy (Industry expert) suggested Introducing the new professional elective course "IOT Applications in Construction" and all members agreed for the same in Second semester.	I

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWAREM, Guntur Dist.

**Koneru Lakshmaiah Education Foundation**

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

Annexure - I: V21 & V22 curriculum Structure**B.Tech 2021-22 Admitted Category wise Courses, Credits and Contact hours Count**

Sl No	Course Category	Short Name	courses	Minimum Credits	Contact Hours
1	Humanities & Social Sciences	HSS	7	15.0	20
2	Basic Sciences	BS	8	22.5	40
3	Engineering Sciences	ES	6	22.5	34
4	Professional Core	PC	15	59.0	73
5	Flexi Core	FC	0	0.0	0
6	Professional Electives	PE	5	15.0	15
7	Project Courses	PR	10	19.0	76
8	Open Electives	OE	5	14.0	14
9	Mandatory Courses	MC	3	0.0	6
Total			59	167.0	278

Structure for B. Tech 2021-22 Admitted Students

The following structure is approved for B. Tech Civil Engineering 2021-22 admitted students.

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	20UC1101	Integrated Professional English	HSS	0	0	4	0	2	4	Nil
2	20UC1202	English Proficiency	HSS	0	0	4	0	2	4	Nil
3	21UC2103	Essential Skills for Employability	HSS	0	0	4	0	2	4	Nil
4	21UC2204	Corporate Readiness Skills	HSS	0	0	4	0	2	4	Nil
5	21UC0010	Universal Human Values & Professional Ethics	HSS	2	0	0	0	2	2	Nil
6	21CE4102	Construction Planning & Project Management	HSS	3	0	0	0	3	3	Nil
7	20UC0007	Indian Heritage and Culture	MC	2	0	0	0	0	2	Nil
8	20UC0008	Indian Constitution	MC	2	0	0	0	0	2	Nil
9	20UC0009	Ecology & Environment	MC	2	0	0	0	0	2	Nil
10	21UC0011	Gender Sensitization	HSS	2	0	0	0	2	2	Nil
11	20MT1101	Mathematics for Computing	BS	2	2	0	2	4.5	6	Nil

CPH
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWARAM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

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

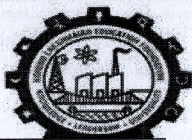
Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluuniversity.in

12	21MT2102	Mathematics for Engineers	BS	2	1	0	0	3	3	Nil
13	21MT2007	Probability, Statistics and Numerical Methods	BS	3	1	0	0	4	4	Nil
14	21PH1010	Mechanics (SE 1)	ES	3	1	0	0	4	4	Nil
15	21UC1203	Design Thinking and Innovation	BS	0	0	4	0	2	4	Nil
16	21PH1002	Engineering Physics	BS	2	0	2	0	3	4	Nil
17	21CY1001	Engineering Chemistry (SE-2)	BS	2	0	2	0	3	4	Nil
18	21UC3105	Problem Solving Skills-I	BS	0	0	2	2	1.5	4	Nil
19	21UC3206	Problem Solving Skills-II	BS	0	0	2	2	1.5	4	Nil
20	21SC1101	Computational Thinking for Structured Design	ES	3	0	2	6	5.5	11	Nil
21	20ME1103	Design Tools Workshop – I	ES	0	0	4	0	2	4	Nil
22	21SC1209	Design Tools Workshop – II	ES	0	0	4	0	2	4	Nil
23	21SC1202	Design of Data Structures	ES	3	0	2	4	5	9	20SC1101
24	21CE1002	Engineering Graphics	ES	2	0	4	0	4	6	Nil
25	21CE2205	Geology	PC	3	0	2	0	4	5	Nil
26	21CE2101	Solid Mechanics	PC	3	0	2	0	4	5	Nil
27	21CE2102	Fluid Mechanics & Hydraulics	PC	3	0	2	0	4	5	Nil
28	21CE2103	Surveying	PC	3	0	2	0	4	5	Nil
29	21CE2201	Structural Analysis	PC	3	1	0	0	4	4	Nil
30	21CE2203	Construction Materials & Concrete Technology	PC	3	0	2	0	4	5	Nil
31	21CE2204	Environmental Engineering	PC	3	0	2	0	4	5	Nil
32	21CE2202	Building Planning, Drawing & Construction Management	PC	3	0	2	0	4	5	Nil
33	21CE2206	Geotechnical Engineering	PC	3	0	2	0	4	5	Nil
34	21CE3101	Design Of Reinforced Concrete Structures	PC	3	0	2	0	4	5	21CE2101
35	21CE3103	Transportation Engineering	PC	3	0	2	0	4	5	Nil

Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWARAM, Guntur Dist.

**Koneru Lakshmaiah Education Foundation**

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

36	21CE3102	Water Resources Engineering	PC	3	1	0	0	4	4	Nil
37	21CE3201	Design Of Steel Structures	PC	3	1	0	0	4	4	Nil
38	21CE3202	Quantity Surveying and Estimation	PC	3	0	2	0	4	5	Nil
39	21CE4101	Comprehensive Exam	PC	0	0	6	0	3	6	Nil
40	PE-1	Professional Elective - 1	PE	3	0	0	0	3	3	Nil
41	PE-2	Professional Elective - 2	PE	3	0	0	0	3	3	Nil
42	PE-3	Professional Elective - 3	PE	3	0	0	0	3	3	Nil
43	PE-4	Professional Elective - 4	PE	3	0	0	0	3	3	Nil
44	PE-5	Professional Elective - 5	PE	3	0	0	0	3	3	Nil
45	OE	Open Elective - 1	OE	3	0	0	0	3	3	Nil
46	OE	Open Elective - 2	OE	3	0	0	0	3	3	Nil
47	OE	Open Elective - 3	OE	3	0	0	0	3	3	Nil
48	OE	Management Elective(OE-4)	OE	3	0	0	0	3	3	Nil
49	OE	Foreign Language Elective(OE-5)	OE	2	0	0	0	2	2	Nil
50	21IE2040	Social Internship	PR	0	0	0	4	1	4	Nil
51	21IE3041	Technical Internship	PR	0	0	0	4	1	4	Nil
52	21IE4042	Industry Internship	PR	0	0	0	4	1	4	Nil
53	21IE2046	Project Based Learning -1	PR	0	0	0	6	1.5	6	Nil
54	21IE2047	Project based learning -2	PR	0	0	0	6	1.5	6	Nil
55	21IE3043	Term paper	PR	0	0	0	4	1	4	Nil
56	21IE3044	Mid Grad Capstone Project - I	PR	0	0	0	8	2	8	Nil
57	21IE3045	Mid Grad Capstone Project - II	PR	0	0	0	8	2	8	Nil
58	21IE4048/ 21IE4051/ 21IE4050	Project / Internship -1/ Practice School	PR	0	0	0	16	4	16	Nil
59	21IE4049/ 1IE4052/ 21IE4050	Project / Internship 2 /Practice School	PR	0	0	0	16	4	16	Nil
Total Credits									167	

List of Professional Electives for Y21 and Y22 admitted batch

Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

VADDESWAREM, Guntur Dist.
(Deemed to be University)
Koneru Lakshmaiah Education Foundation
Department of Civil Engineering



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Sl No	Course Code	Course Title	Specialization	L	T	P	S	Cr	CH	Pre-requisite
1	21CE3211	Advanced Structural Analysis	Structural Engineering	3	0	0	0	3	3	NIL
2	21CE3221	Advanced Design of Reinforced Concrete Structures		3	0	0	0	3	3	NIL
3	21CE3231	Prestressed concrete		3	0	0	0	3	3	NIL
4	21CE4141	Bridge engineering		3	0	0	0	3	3	NIL
5	21CE4151	Precast and Prefabricated structures		3	0	0	0	3	3	NIL
6	21CE3216	Projects & Contract management	Construction Technology and Management	3	0	0	0	3	3	NIL
7	21CE3226	Quality and Safety Management		3	0	0	0	3	3	NIL
8	21CE3236	Form Work		3	0	0	0	3	3	NIL
9	21CE4146	Construction Economics		3	0	0	0	3	3	NIL
10	21CE4156	Sustainable Construction Technology		3	0	0	0	3	3	NIL
11	21CE3212	Foundation engineering	Geotechnical Engineering	3	0	0	0	3	3	NIL
12	21CE3222	Ground improvement techniques		3	0	0	0	3	3	NIL
13	21CE3232	Design of earth retaining structures		3	0	0	0	3	3	NIL
14	21CE4142	Geotechnical earthquake engineering		3	0	0	0	3	3	NIL
15	21CE4153	Forensics in Civil Engineering		3	0	0	0	3	3	NIL
16	21CE3215	Intelligent transportation systems	Transportation Engineering	3	0	0	0	3	3	NIL
17	21CE3225	Pavement materials & design		3	0	0	0	3	3	NIL
18	21CE3235	Traffic engineering and management		3	0	0	0	3	3	NIL
19	21CE4145	Urban transportation systems planning.		3	0	0	0	3	3	NIL
20	21CE4155	Railway engineering airport planning and design		3	0	0	0	3	3	NIL
21	21CE3213	Sustainable engineering & technology	Environmental Engineering	3	0	0	0	3	3	NIL

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

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

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 29-36-38, Museum Road, Guntur

91-886-3500122, 2577715, 2576129.

22	21CE3223	assessment and life cycle analyses	3	0	0	0	3	3	NIL
23	21CE3233	Solid Waste Management and Landfills	3	0	0	0	3	3	NIL
24	21CE3214	River engineering	3	0	0	0	3	3	NIL
25	21CE3224	Urban water hydrology and hydraulics	3	0	0	0	3	3	NIL

List of OPEN Electives, Management Electives and Foreign Language Courses for Y21 & Y22 Admitted Students

Sl No	Course Code	Course Title	L	T	P	S	Cr	CH	Pre-requisite
1	21BT40A1	IPR & Patent Laws	3	0	0	0	3	3	NIL
2	21BT40A9	Biomaterials	3	0	0	0	3	3	NIL
3	21BT40C5	Computer Aided Drug Design	3	0	0	0	3	3	NIL
4	21CE40A2	Environmental Pollution Control Methods	3	0	0	0	3	3	NIL
5	21CE40A3	Solid and Hazardous waste management	3	0	0	0	3	3	NIL
6	21CE40A4	Remote Sensing & GIS	3	0	0	0	3	3	NIL
7	21CE40A5	Disaster Management	3	0	0	0	3	3	NIL
8	21CS40A7	Fundamentals of Software Engineering	3	0	0	0	3	3	NIL
9	21CS40A6	Fundamentals of DBMS	3	0	0	0	3	3	NIL
10	21CS40A8	Fundamentals of IT	3	0	0	0	3	3	NIL
11	20ME40B4	Robotics	3	0	0	0	3	3	NIL
12	20ME40B5	Mechatronics	3	0	0	0	3	3	NIL
13	20ME40B6	Operations Research	3	0	0	0	3	3	NIL
14	20ME40B7	Hybrid Electric vehicles	3	0	0	0	3	3	NIL
15	20ME40B8	Industry 4.0	3	0	0	0	3	3	NIL
16	20ME40B9	Industrial Automation	3	0	0	0	3	3	NIL
17	20ME40C1	Logistics & Supply chain management	3	0	0	0	3	3	NIL
18	20ME40C2	Total Quality Management	3	0	0	0	3	3	NIL
19	20ME40C3	Smart Mobility	3	0	0	0	3	3	NIL
20	20ME40C4	Managerial Economics for Engineers	3	0	0	0	3	3	NIL
21	21EL40B1	Linux Programming	3	0	0	0	3	3	NIL

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

22	21EL40B2	E-Commerce	3	0	0	0	3	3	NIL
23	21GN40C1	Self Development	3	0	0	0	3	3	NIL
24	21GN40C3	Emotional Intelligence	3	0	0	0	3	3	NIL
25	21GN40C5	Behavioural Sciences	3	0	0	0	3	3	NIL
26	21GN40D1	National Cadet Cops-1	2	0	2	0	3	4	NCC
27	21GN40D2	National Cadet Cops-2	2	0	2	0	3	4	NCC
28	21GN40D3	National Cadet Cops-3	2	0	2	0	3	4	NCC
29	21GN40D4	National Service Scheme-1	2	0	2	0	3	4	NSS
30	21GN40D5	National Service Scheme-2	2	0	2	0	3	4	NSS
31	21GN40D6	National Service Scheme-3	2	0	2	0	3	4	NSS
32	21MB4056	Resources Safety and Quality Management	2	0	0	0	2	2	NIL
33	21MB4051	Paradigms in Management Thought	3	0	0	0	3	3	NIL
34	21MB4052	Indian Economy	3	0	0	0	3	3	NIL
35	21MB4053	Managing Personal Finances	3	0	0	0	3	3	NIL
36	21MB4054	Basics of Marketing for Engineers	3	0	0	0	3	3	NIL
37	21MB4055	Organization Management	3	0	0	0	3	3	NIL
38	21MB4057	Economics for Engineers	3	0	0	0	3	3	NIL

Foreign Language Electives

Sl No	Course Code	Course Title	L	T	P	S	Cr	CH	Pre-requisite
1	21FL3051	ARABIC LANGUAGE	2	0	0	0	2	2	NIL
2	21FL3052	BENGALI LANGUAGE	2	0	0	0	2	2	NIL
3	21FL3053	CHINESE LANGUAGE	2	0	0	0	2	2	NIL
4	21FL3054	FRENCH LANGUAGE	2	0	0	0	2	2	NIL
5	21FL3055	GERMAN LANGUAGE	2	0	0	0	2	2	NIL
6	21FL3056	HINDI LANGUAGE	2	0	0	0	2	2	NIL
7	21FL3057	ITALIAN LANGUAGE	2	0	0	0	2	2	NIL
8	21FL3059	KANNADA LANGUAGE	2	0	0	0	2	2	NIL
9	21FL3060	RUSSIAN LANGUAGE	2	0	0	0	2	2	NIL
10	21FL3061	SIMHALI LANGUAGE	2	0	0	0	2	2	NIL
11	21FL3062	SPANISH LANGUAGE	2	0	0	0	2	2	NIL
12	21FL3058	JAPANESE LANGUAGE-1	2	0	0	0	2	2	NIL

ADDITIONAL OPEN ELECTIVES TO COMPLETE THREE LEVELS OF JAPANESE LANGUAGE and 24 CREDITS OF NCC(as per UGC)

Sl No	Course Code	Course Title	L	T	P	S	Cr	CH	Pre-requisite
1	21FL3063	JAPANESE LANGUAGE-2	3	0	0	0	3	3	21FL3058

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

VADDESWARAM, Guntur Dist.
(Deemed to be University)
Koneru Lakshmaiah Education Foundation
Department of Civil Engineering
Head

CRK

2	21FL3064	JAPANESE LANGUAGE-3	3	0	0	0	3	3	21FL3063
3	21GN40D7	NCC-4	2	0	6	0	5	8	NCC
4	21GN40D8	CAMP-1	0	0	4	0	2	4	NCC
5	21GN40D9	CAMP-2	0	0	4	0	2	4	NCC

Koneru Lakshmaiah Education Foundation
(Category -1, Deemed to be University estd. u/s. 3 of the UGC Act, 1956)
Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified
Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.
Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluuniversity.in





Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

Y22 CURRICULUM STRUCTURE

B.Tech 2022-23 Admitted Category wise Courses, Credits and Contact hours Count

SI No	Course Category	Short Name	courses	Minimum Credits	Contact Hours
1	Humanities & Social Sciences	HSS	7	15.0	20
2	Basic Sciences	BS	8	22.5	40
3	Engineering Sciences	ES	6	22.5	34
4	Professional Core	PC	15	59.0	73
5	Flexi Core	FC	0	0.0	0
6	Professional Electives	PE	5	15.0	15
7	Project Courses	PR	10	19.0	76
8	Open Electives	OE	5	14.0	14
9	Mandatory Courses	MC	3	0.0	6
Total			59	167.0	278

Structure for B. Tech 2022-23 Admitted Students

The following structure is approved for B. Tech Civil Engineering 2022-23 admitted students.

SI No	Course Title	Category	L	T	P	S	Cr	CH	Pre-requisite
1	Integrated Professional English	HSS	0	0	4	0	2	4	Nil
2	English Proficiency	HSS	0	0	4	0	2	4	Nil
3	Essential Skills for Employability	HSS	0	0	4	0	2	4	Nil
4	Corporate Readiness Skills	HSS	0	0	4	0	2	4	Nil
5	Universal Human Values & Professional Ethics	HSS	2	0	0	0	2	2	Nil
6	Construction Planning & Project Management	HSS	3	0	0	0	3	3	Nil
7	Indian Heritage and Culture	MC	2	0	0	0	0	2	Nil
8	Indian Constitution	MC	2	0	0	0	0	2	Nil
9	Ecology & Environment	MC	2	0	0	0	0	2	Nil
10	Gender Sensitization	HSS	2	0	0	0	2	2	Nil
11	Mathematics for Computing	BS	2	2	0	2	4.5	6	Nil

Head
 Department of Civil Engineering
 Koneru Lakshmaiah Education Foundation
 (Deemed to be University)
 VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

12	Mathematics for Engineers	BS	2	1	0	0	3	3	Nil
13	Probability, Statistics and Numerical Methods	BS	3	1	0	0	4	4	Nil
14	Mechanics (SE 1)	ES	3	1	0	0	4	4	Nil
15	Design Thinking and Innovation	BS	0	0	4	0	2	4	Nil
16	Engineering Physics	BS	2	0	2	0	3	4	Nil
17	Engineering Chemistry (SE-2)	BS	2	0	2	0	3	4	Nil
18	Problem Solving Skills-I	BS	0	0	2	2	1.5	4	Nil
19	Problem Solving Skills-II	BS	0	0	2	2	1.5	4	Nil
20	Computational Thinking for Structured Design	ES	3	0	2	6	5.5	11	Nil
21	Design Tools Workshop – I	ES	0	0	4	0	2	4	Nil
22	Design Tools Workshop – II	ES	0	0	4	0	2	4	Nil
23	Design of Data Structures	ES	3	0	2	4	5	9	20SC1101
24	Engineering Graphics	ES	2	0	4	0	4	6	Nil
25	Geology	PC	3	0	2	0	4	5	Nil
26	Solid Mechanics	PC	3	0	2	0	4	5	Nil
27	Fluid Mechanics & Hydraulics	PC	3	0	2	0	4	5	Nil
28	Surveying	PC	3	0	2	0	4	5	Nil
29	Structural Analysis	PC	3	1	0	0	4	4	Nil
30	Construction Materials & Concrete Technology	PC	3	0	2	0	4	5	Nil
31	Environmental Engineering	PC	3	0	2	0	4	5	Nil
32	Building Planning, Drawing & Construction Management	PC	3	0	2	0	4	5	Nil
33	Geotechnical Engineering	PC	3	0	2	0	4	5	Nil
34	Design Of Reinforced Concrete Structures	PC	3	0	2	0	4	5	21CE2101
35	Transportation Engineering	PC	3	0	2	0	4	5	Nil
36	Water Resources Engineering	PC	3	1	0	0	4	4	Nil
37	Design Of Steel Structures	PC	3	1	0	0	4	4	Nil
38	Quantity Surveying and Estimation	PC	3	0	2	0	4	5	Nil
39	Comprehensive Exam	PC	0	0	6	0	3	6	Nil
40	Professional Elective – 1	PE	3	0	0	0	3	3	Nil
41	Professional Elective – 2	PE	3	0	0	0	3	3	Nil
42	Professional Elective – 3	PE	3	0	0	0	3	3	Nil
43	Professional Elective – 4	PE	3	0	0	0	3	3	Nil

[Signature]
Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

44	Professional Elective – 5	PE	3	0	0	0	3	3	Nil
45	Open Elective – 1	OE	3	0	0	0	3	3	Nil
46	Open Elective – 2	OE	3	0	0	0	3	3	Nil
47	Open Elective – 3	OE	3	0	0	0	3	3	Nil
48	Management Elective(OE-4)	OE	3	0	0	0	3	3	Nil
49	Foreign Language Elective(OE-5)	OE	2	0	0	0	2	2	Nil
50	Social Internship	PR	0	0	0	4	1	4	Nil
51	Technical Internship	PR	0	0	0	4	1	4	Nil
52	Industry Internship	PR	0	0	0	4	1	4	Nil
53	Project Based Learning -1	PR	0	0	0	6	1.5	6	Nil
54	Project based learning -2	PR	0	0	0	6	1.5	6	Nil
55	Term paper	PR	0	0	0	4	1	4	Nil
56	Mid Grad Capstone Project – I	PR	0	0	0	8	2	8	Nil
57	Mid Grad Capstone Project – II	PR	0	0	0	8	2	8	Nil
58	Project / Internship -1/ Practice School	PR	0	0	0	16	4	16	Nil
59	Project / Internship 2 /Practice School	PR	0	0	0	16	4	16	Nil
Total Credits								167	

List of Professional Electives

Sl No	Course Title	Specialization	L	T	P	S	Cr	CH	Pre-requisite
1	Advanced Structural Analysis	Structural Engineering	3	0	0	0	3	3	NIL
2	Advanced Design of Reinforced Concrete Structures		3	0	0	0	3	3	NIL
3	Prestressed concrete		3	0	0	0	3	3	NIL
4	Bridge engineering		3	0	0	0	3	3	NIL
5	Precast and Prefabricated structures		3	0	0	0	3	3	NIL
6	Projects& Contract management	Construction Technology and Management	3	0	0	0	3	3	NIL
7	Quality and Safety Management		3	0	0	0	3	3	NIL
8	Form Work		3	0	0	0	3	3	NIL
9	Construction Economics		3	0	0	0	3	3	NIL
10	Sustainable Construction		3	0	0	0	3	3	NIL

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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


Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

Admin Off: 29-36-38, Museum R

520 002, Ph: +91 - 866 - 350122, 2577715, 2576129.

 Admin Off: 29-36-38, Museum R Technology			520 002, Ph: +91 - 886 - 3580122, 2577715, 2576129.						
11	Foundation engineering	Geotechnical Engineering	3	0	0	0	3	3	NIL
12	Ground improvement techniques		3	0	0	0	3	3	NIL
13	Design of earth retaining structures		3	0	0	0	3	3	NIL
14	Geotechnical earthquake engineering		3	0	0	0	3	3	NIL
15	Forensics in Civil Engineering		3	0	0	0	3	3	NIL
16	Intelligent transportation systems	Transportation Engineering	3	0	0	0	3	3	NIL
17	Pavement materials & design		3	0	0	0	3	3	NIL
18	Traffic engineering and management		3	0	0	0	3	3	NIL
19	Urban transportation systems planning.		3	0	0	0	3	3	NIL
20	Railway engineering airport planning and design		3	0	0	0	3	3	NIL
21	Sustainable engineering & technology	Environmental Engineering	3	0	0	0	3	3	NIL
22	Environmental impact assessment and life cycle analyses		3	0	0	0	3	3	NIL
23	Solid Waste Management and Landfills		3	0	0	0	3	3	NIL
24	River engineering		3	0	0	0	3	3	NIL
25	Urban water hydrology and hydraulics		3	0	0	0	3	3	NIL

List of Open Electives, Management Electives and Foreign Language Electives

Sl No	Course Title	L	T	P	S	Cr	CH	Pre-requisite
1	IPR & Patent Laws	3	0	0	0	3	3	NIL
2	Biomaterials	3	0	0	0	3	3	NIL
3	Computer Aided Drug Design	3	0	0	0	3	3	NIL
4	Environmental Pollution Control Methods	3	0	0	0	3	3	NIL
5	Solid and Hazardous waste management	3	0	0	0	3	3	NIL
6	Remote Sensing & GIS	3	0	0	0	3	3	NIL
7	Disaster Management	3	0	0	0	3	3	NIL
8	Fundamentals of Software Engineering	3	0	0	0	3	3	NIL

Chh
Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWARAM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

9	Fundamentals of DBMS	3	0	0	0	3	3	NIL
10	Fundamentals of IT	3	0	0	0	3	3	NIL
11	Robotics	3	0	0	0	3	3	NIL
12	Mechatronics	3	0	0	0	3	3	NIL
13	Operations Research	3	0	0	0	3	3	NIL
14	Hybrid Electric vehicles	3	0	0	0	3	3	NIL
15	Industry 4.0	3	0	0	0	3	3	NIL
16	Industrial Automation	3	0	0	0	3	3	NIL
17	Logistics & Supply chain management	3	0	0	0	3	3	NIL
18	Total Quality Management	3	0	0	0	3	3	NIL
19	Smart Mobility	3	0	0	0	3	3	NIL
20	Managerial Economics for Engineers	3	0	0	0	3	3	NIL
21	Linux Programming	3	0	0	0	3	3	NIL
22	E-Commerce	3	0	0	0	3	3	NIL
23	Self Development	3	0	0	0	3	3	NIL
24	Emotional Intelligence	3	0	0	0	3	3	NIL
25	Behavioural Sciences	3	0	0	0	3	3	NIL
26	National Cadet Cops-1	2	0	2	0	3	4	NCC
27	National Cadet Cops-2	2	0	2	0	3	4	NCC
28	National Cadet Cops-3	2	0	2	0	3	4	NCC
29	National Service Scheme-1	2	0	2	0	3	4	NSS
30	National Service Scheme-2	2	0	2	0	3	4	NSS
31	National Service Scheme-3	2	0	2	0	3	4	NSS
32	Resources Safety and Quality Management	2	0	0	0	2	2	NIL
33	Paradigms in Management Thought	3	0	0	0	3	3	NIL
34	Indian Economy	3	0	0	0	3	3	NIL
35	Managing Personal Finances	3	0	0	0	3	3	NIL
36	Basics of Marketing for Engineers	3	0	0	0	3	3	NIL
37	Organization Management	3	0	0	0	3	3	NIL
38	Economics for Engineers	3	0	0	0	3	3	NIL
List of Foreign Language Electives								

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.kluniversity.in

Sl No	Course Title	L	T	P	S	Cr	CH	Pre-requisite
1	ARABIC LANGUAGE	2	0	0	0	2	2	NIL
2	BENGALI LANGUAGE	2	0	0	0	2	2	NIL
3	CHINESE LANGUAGE	2	0	0	0	2	2	NIL
4	FRENCH LANGUAGE	2	0	0	0	2	2	NIL
5	GERMAN LANGUAGE	2	0	0	0	2	2	NIL
6	HINDI LANGUAGE	2	0	0	0	2	2	NIL
7	ITALIAN LANGUAGE	2	0	0	0	2	2	NIL
8	KANNADA LANGUAGE	2	0	0	0	2	2	NIL
9	RUSSIAN LANGUAGE	2	0	0	0	2	2	NIL
10	SIMHALI LANGUAGE	2	0	0	0	2	2	NIL
11	SPANISH LANGUAGE	2	0	0	0	2	2	NIL
12	JAPANESE LANGUAGE-1	2	0	0	0	2	2	NIL
Sl No	Course Title	L	T	P	S	Cr	CH	Pre-requisite
1	JAPANESE LANGUAGE-2	3	0	0	0	3	3	21FL3058
2	JAPANESE LANGUAGE-3	3	0	0	0	3	3	21FL3063
3	NCC-4	2	0	6	0	5	8	NCC
4	CAMP-1	0	0	4	0	2	4	NCC
5	CAMP-2	0	0	4	0	2	4	NCC

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

B. Tech MINORS Degree Program for 2021-22 Admitted Batch

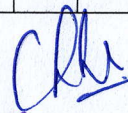
Minors Degree program entitled “**Infrastructure Management**” is introduced and offered to all engineering branches and list of courses, credits and contact hours as mentioned below and recommended and approved by all members.

Sl No	Course Title	Type	L	T	P	S	Cr	CH
1	Environment Management	PC	3	1	0	0	4	4
2	Water Resources Management	PC	3	1	0	0	4	4
3	Transportation Management	PC	3	0	0	0	3	3
4	Constitutive Modelling and Management in Geo-techniques	PC	3	0	0	0	3	3
5	Construction Management	PC	3	0	0	0	3	3
6	Smart Infrastructure	PC	3	0	0	0	3	3
7	Competitive Coding							
8	WTN (Wipro Talent Next)							
Grand Total			18	2	0	0	20	20

B. Tech HONORS Degree Program for 2021-22 Admitted Batch

Introduction of Honors degree program for B.Tech Civil Engineering students for the requirement of specialized degree in respective core specialization of civil engineering and recommended and approved by all members.

Sl No	Course Title	Type	L	T	P	S	Cr	CH
1	Emerging Construction Technologies	PC	3	0	0	0	3	3
2	Building Information Modelling	PC	3	0	2	0	4	5
3	Design and Drawing of Irrigation Structures	PC	3	0	2	0	4	3
4	Integrated Waste Management for Smart Cities	PE 1	3	0	0	0	3	3
5	Pre-Engineered Structures	PE 2	3	0	0	0	3	5
6	Rehabilitation & Retrofitting of Structures	PE 3	3	0	0	0	3	3
Grand Total			18	0	4	0	20	26


Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWARAM, Guntur Dist.

**Koneru Lakshmaiah Education Foundation**

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

B. Tech MINORS Degree Program for 2022-23 Admitted Batch

Minors Degree program entitled “**Infrastructure Management**” is introduced and offered to all engineering branches and list of courses, credits and contact hours as mentioned below and recommended and approved by all members.

Sl No	Course Title	Type	L	T	P	S	Cr	CH
1	Environment Management	PC	3	1	0	0	4	4
2	Water Resources Management	PC	3	1	0	0	4	4
3	Transportation Management	PC	3	0	0	0	3	3
4	Constitutive Modelling and Management in Geo-techniques	PC	3	0	0	0	3	3
5	Construction Management	PC	3	0	0	0	3	3
6	Smart Infrastructure	PC	3	0	0	0	3	3
7	Competitive Coding							
8	WTN (Wipro Talent Next)							
Grand Total			20	2	0	0	20	20

B. Tech HONORS Degree Program for 2022-23 Admitted Batch

Introduction of Honors degree program for B.Tech Civil Engineering students for the requirement of

specialized degree in respective core specialization of civil engineering and recommended and approved by all members.

Sl No	Course Title	Type	L	T	P	S	Cr	CH
1	Emerging Construction Technologies	PC	3	0	0	0	3	3
2	Building Information Modelling	PC	3	0	2	0	4	5
3	Design and Drawing of Irrigation Structures	PC	3	0	2	0	4	3
4	Integrated Waste Management for Smart Cities	PE 1	3	0	0	0	3	3
5	Pre-Engineered Structures	PE 2	3	0	0	0	3	5
6	Rehabilitation & Retrofitting of Structures	PE 3	3	0	0	0	3	3
Grand Total			18	0	4	0	20	26

Chlu
Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08845 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

ANNEXURE – II

MINORS DEGREE “Infrastructure Management” Courses and Syllabus Environment Management

Course code :

L-T-P-S: 3-1-0-0

Pre-requisite : NIL

Credits : 4

Co No	Course Outcomes	PO/PSO	BTL
1	Understand the rocks and minerals and their exploration , energy and environment	PO3,PO6	2
2	Understand the types of agriculture cause and impact and sustainable agriculture, water management	PO3, PO6	2
3	Understand the natural disaster and Atmospheric pollution	PO3, PO6	2
4	Understand the Human population distribution and density, Natural ecosystems and human activities	PO3, PO6	2

Syllabus

Rocks and minerals and their exploitation: Formation of rocks, extraction of rocks and minerals from the Earth, impact of rock and mineral extraction, Managing the impact of rock and mineral extraction, Sustainable use of rocks and minerals

Energy and the environment: Fossil fuel formation, Energy resources and the generation of electricity, Energy demand, Conservation and management of energy resources, Impact of oil pollution, Management of oil pollution

Agriculture and the environment: Soil composition, Soils for plant growth, Agriculture types, increasing agricultural yields, Impact of agriculture, Causes and impacts of soil erosion, Managing soil erosion, Sustainable agriculture

Water and its management: Global water distribution, the water cycle, Water supply, Water usage, Water quality and availability, Multipurpose dam projects, Water pollution and its sources, Impact of water pollution, Managing pollution of fresh water, Managing water-related disease

Managing natural hazards: Earthquakes and volcanoes, Tropical cyclones, Flooding, Drought, the impacts of natural hazards, Managing the impacts of natural hazards, Opportunities presented by natural hazards

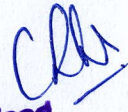
The atmosphere and human activities: The atmosphere, Atmospheric pollution and its causes, Impact of atmospheric pollution, Managing atmospheric pollution

Human population: Human population distribution and density, Changes in population size, Population structure, Managing human population size.

Natural ecosystems and human activities: Ecosystems, Ecosystems under threat, Deforestation, Managing forests, Measuring and managing biodiversity

Text Book

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESARAM, Guntur Dist.


Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESARAM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

1. Environmental Management, Talwar Prakash, Isha Books Publication
2. Environmental Management Peter R Mulvihill, Routledge Publication
3. Environmental Management Systems 1 ED by Stephen Tinsley

REFERENCES

1. Scoot, R..M. 1997. Basic concepts of industrial hygiene, Lewis Publisher, New York
2. Diberardins L.J. , 1998. Hand book of occupational safety and health, John Willey, New York
3. Park J.E. and Park, Preventive and social medicine.
4. Schilling R.S.E. 1973. Occupational health practice, Buffer Worth, London,
5. Khan M.A.O., John.P, Bederka.S. , 1974. Survival in toxic environment, Academic Press, New York .

Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

**Koneru Lakshmaiah Education Foundation**

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

Annexure-9: Proposal for Curriculum structure for Y22 M.Tech Admitted Students

The following structures are approved and recommended for M.Tech SE, CTM and GTE students admitted for Y22 Regulation.

CURRICULUM STRUCTURE FOR Y22 M.TECH SE ADMITTED STUDENTS

Sl No	Course Code	Course Title	Category	L	T	P	S	Cr	CH
1	22CE5101	Advanced Mechanics of Solids	PC	3	1	0	0	4	4
2	22CE5102	Advanced Prestressed Concrete Design	PC	3	1	0	0	4	4
3	22CE5103	Advanced Concrete Technology	PC	3	0	2	0	4	5
4	22CE5104	Structural Dynamics	PC	3	0	2	0	4	5
5	22CE5205	Theory of Plates and Shells	PC	3	1	0	0	4	4
6	22CE5206	Finite Element Analysis	PC	3	0	2	0	4	5
7	22CE5207	Bridge Engineering	PC	3	1	0	0	4	4
8	22CE5208	Earthquake resistant design of structures	PC	3	0	2	0	4	5
9		Professional Elective - 1	PE	3	0	0	0	3	3
10		Professional Elective - 2	PE	3	0	0	0	3	3
11		Professional Elective - 3	PE	3	0	0	0	3	3
12		Professional Elective - 4	PE	3	0	0	0	3	3
13	22IE5149	Seminar	PR	0	0	4	0	2	4
14	22IE5250	Term Paper	PR	0	0	4	0	2	4
15	22IE6149/ 22IE6150	Practice School /Project	PR	0	0	36	0	18	36
16	22IE6249/ 22IE6250	Practice School /Project	PR	0	0	36	0	18	36

List of Electives

1	22CE51A1	Pre Engineered Structures (PE 1)	PE1	3	0	0	0	3	3
2	22CE51A2	Design of Offshore Structures (PE1)	PE1	3	0	0	0	3	3
3	22CE51A3	HYDRATION, POROSITY, & STRENGTH OF CEMENTITIOUS MATERIAL	PE1	3	0	0	0	3	3
4	22CE51A4	Continuum Mechanics	PE1	3	0	0	0	3	3
5	22CE51B1	Design and Detailing of Structures (PE 2)	PE2	3	0	0	0	3	3
6	22CE51B2	Repair and Rehabilitation of Structures (PE 2)	PE2	3	0	0	0	3	3
7	22CE51B3	STRUCTURAL RELIABILITY	PE2	3	0	0	0	3	3
8	22CE51B4	Advanced design of Steel Structures	PE2	3	0	0	0	3	3
9	22CE52C1	Fracture Mechanics (PE 3)	PE3	3	0	0	0	3	3

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWARAM, Guntur



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; www.klef.ac.in; www.klef.edu.in; www.kluniversity.in

10	22CE52C2	Design of Tall Structures (PE 3)	PE3	3	0	0	0	3	3
11	22CE52C3	DESIGN OF CONNECTIONS IN STEEL STRUCTURES	PE3	3	0	0	0	3	3
12	22CE52 C4	Advanced Design of Reinforced concrete structures	PE3	3	0	0	0	3	3
13	22CE52D1	Green Buildings (PE 4)	PE4	3	0	0	0	3	3
14	22CE52D2	Stability of structures (PE 4)	PE4	3	0	0	0	3	3
15	22CE52D3	SOILSTRUCTURE INTERACTION	PE4	3	0	0	0	3	3
16	22CE52D4	Forensics in Structural Engineering	PE4	3	0	0	0	3	3
Total Credits								84	128

Syllabus revision (No of courses syllabus revision in Program / Total No. of courses offered in the program) is 28.57%

CLW
Head,

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESARAM, Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESARAM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

CURRICULUM STRUCTURE FOR Y22 M.TECH CTM ADMITTED STUDENTS

Sl No	Course Code	Course Title	Category	L	T	P	S	C r	CH
1	22CE5121	Construction Planning Scheduling and Control	PC	3	0	2	0	4	5
2	22CE5122	Sustainable Construction Materials and Methods	PC	3	0	2	0	4	5
3	22CE5123	Lean Construction Practices	PC	3	1	0	0	4	4
4	22CE5124	Building Information Modelling	PC	3	0	2	0	4	5
5	22CE5225	Mechanized Construction and Machinery	PC	3	0	2	0	4	5
6	22CE5226	Project Formulation Appraisal	PC	3	1	0	0	4	4
7	22CE5227	Construction Laws and Regulations	PC	3	1	0	0	4	4
8	22CE5228	Quality Management and Safety Management Systems in Construction	PC	3	0	2	0	4	5
9		Professional Elective - 1	PE	3	0	0	0	3	3
10		Professional Elective - 2	PE	3	0	0	0	3	3
11		Professional Elective- 3	PE	3	0	0	0	3	3
12		Professional Elective - 4	PE	3	0	0	0	3	3
13	22IE5149	Seminar	PR	0	0	4	0	2	4
14	22IE5250	Term Paper	PR	0	0	4	0	2	4
15	22IE6149/22 IE6150	Practice School /Project	PR	0	0	3 6	0	1 8	36
16	22IE6249/22 IE6250	Practice School /Project	PR	0	0	3 6	0	1 8	36
List of Electives									
1	22CE51E1	Material Procurement Management	PE1	3	0	0	0	3	3
2	22CE51E2	Green Buildings	PE1	3	0	0	0	3	3
3	22CE51E3	Sustainable Engineering Concepts and Life Cycle Analysis	PE1	3	0	0	0	3	3
4	22CE51E4		PE1	3	0	0	0	3	3
5	22CE51F1	Construction Personnel Management	PE2	3	0	0	0	3	3
6	22CE51F2	Pre-Engineering Construction and Technology	PE2	3	0	0	0	3	3

[Signature]
Head

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADESWARAM, Guntur Dist.

**Koneru Lakshmaiah Education Foundation**

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

7	22CE51F3	INFRASTRUCTURE PLANNING ANDMANAGEMENTS	PE2	3	0	0	0	3	3
8	22CE51F4	Advanced construction Technology	PE2	3	0	0	0	3	3
9	22CE52G1	Statistical Methods in Construction	PE3	3	0	0	0	3	3
10	22CE52G2	Project Risk Management	PE3	3	0	0	0	3	3
11	22CE52G3	CHARACTERIZATION OF CONSTRUCTION MATERIALS	PE3	3	0	0	0	3	3
12	22CE52G4	Drone Technology in Construction	PE3	3	0	0	0	3	3
13	22CE52H1	Emerging Construction Technologies	PE4	3	0	0	0	3	3
14	22CE52H2	Resource Management and Control in Construction	PE4	3	0	0	0	3	3
15	22CE52H3	PRINCIPLES OF CONSTRUCTIONMANAGEMENT	PE4	3	0	0	0	3	3
16	22CE52H4	IOT Applications in Construction	PE4	3	0	0	0	3	3
Total Credits								84	128

Syllabus revision (No of courses syllabus revision in Program / Total No.

of courses offered in the program) is 28.57%

(Signature)
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

(Signature)
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

CURRICULUM STRUCTURE FOR Y22 M.TECH GTE ADMITTED STUDENTS

SEMESTER-1							
S.No	Course Title	L	T	P	S	Cr	CH
1	Advanced Soil Mechanics	3	0	2	0	4	5
2	Sub Surface Investigations	3	0	2	0	4	5
3	Geo Environmental Engineering	3	0	2	0	4	5
4	Ground Improvement Techniques	3	0	2	0	4	5
5	Soil structure interaction (PE 1)	3	0	0	0	3	0
	Finite Element Methods (PE 1)						
6	Stability Analysis of Slopes (PE 2)	3	0	0	0	3	0
	Design of Highways and Airfiled Pavements (PE 2)						
7	Seminar	0	0	4	0	2	4
Total		18	0	12	0	24	24
SEMESTER-2							
S.No	Course Title	L	T	P	S	Cr	CH
1	Soil Dynamics and Geotechnical Earthquake Engineering	3	0	2	0	4	5
2	Geo Synthetics and Design of Retaining Walls	3	0	2	0	4	5
3	Design of Earth and Earth Retaining Structures	3	0	2	0	4	5
4	Advanced Foundation Engineering	3	0	2	0	4	5
5	Solid Waste Management and Landfills (PE 3)	3	0	0	0	3	3
	Offshore Geotechnical engineering (PE3)						
6	RS and GIS Applications in Civil Engineering (PE 4)	3	0	0	0	3	3
	Constitutive Modeling in Geo-techniques (PE 4)						
7	Term Paper	0	0	4	0	2	4
Total		18	0	12	0	24	30
SEMESTER-3							
S.No	Course Title	L	T	P	S	Cr	CH
1	Project	0	0	36	0	18	36
SEMESTER-4							
S.No	Course Title	L	T	P	S	Cr	CH
1	Project	0	0	36	0	18	36
GRAND TOTAL		36	0	96	0	84	126

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

**Koneru Lakshmaiah Education Foundation**

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

ANNEXURE-10: DAC -2 MEETING

Type of Meeting	Internal Academic Discussions
Department conducting the meeting	Civil Engineering
Date of the meeting	05-03-2022
Time of the meeting	3:30 PM
Venue of the meeting	Online Webex

Agenda Items:

- Stake Holders feedback on proposed modified curriculum
- Discussion on high packages and various companies visiting premier institutions like IITs/IIMs
- Discussion on company wise Job Roles in civil engineering industry
- Discussion on the List of skill sets needed for each Job role & mapping with curriculum
- Identification of Cluster wise Industrial requirements
- Identification of Job role wise VQR skills & mapping with curriculum

Agenda Item wise Discussion:

Point No	Agenda Item	Resolution
I	Stake Holders feedback on proposed modified curriculum	Approved and recommended to BOS

Detailed Description:

Feedback had been taken from all the stakeholders on the proposed and modified curriculum as mentioned in point no 1.1 and is approved and recommended to BOS

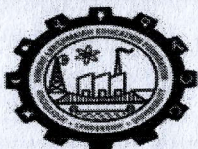
Point No	Agenda Item	Resolution
II	Discussion on high packages and various companies visiting premier institutions like IITs/IIMs	Identified necessary steps to achieve required packages

Detailed Description:

List of high packages and various companies visiting premier institutions like IITs/IIMs are mentioned in point no. 1.3 with highest and average salary packages and Identified necessary steps to achieve required packages

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

VADDESWAREM, Guntur Dist.
(Deemed to be University)
Koneru Lakshmaiah Education Foundation
Department of Civil Engineering



Koneru Lakshmaiah Education Foundation

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

Accredited by NAAC as 'A++' ♦ Approved by AICTE ♦ ISO 9001-2015 Certified

Campus: Green Fields, Vaddeswaram - 522 302, Guntur District, Andhra Pradesh, INDIA.

Phone No. 08645 - 350200; 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 - 3500122, 2577715, 2576129.

Point No	Agenda Item	Resolution
III	Discussion on company wise Job Roles in civil engineering industry	Added in curriculum and Approved and recommended to BOS

Detailed Description:

Detailed Discussion on company wise Job Roles in civil engineering Industry and identified as mentioned in point no. 1.4 and added to curriculum and approved and recommended to BOS.

Point No	Agenda Item	Resolution
IV	Discussion on the List of skill sets needed for each Job role & mapping with curriculum	Approved and recommended to BOS

Detailed Description:

List of skill sets needed for each Job role were identified and mapped with curriculum as mentioned in point no 1.5. and approved and recommended to BOS.

Point No	Agenda Item	Resolution
V	Identification of Cluster wise Industrial requirements	Approved and recommended to BOS

Detailed Description:

Cluster wise Industrial requirements were identified as per point no.1.6. and approved and recommended to BOS.

Point No	Agenda Item	Resolution
VI	Identification of Job role wise VQR skills & mapping with curriculum	Approved and recommended to BOS

Detailed Description:

VQR skills required for each job were identified as per point no 1.7 & mapped with curriculum and approved and recommended to BOS

Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.

Head
Department of Civil Engineering
Koneru Lakshmaiah Education Foundation
(Deemed to be University)
VADDESWAREM, Guntur Dist.