(AFFILIATED TO INTUK, KAKINADA (RECOGNISED BY ALL INDIA COUNCIL FOR TECH. EDN., NEW DELHI) (Accredited by NAAC, NBA NEW DELHI)

CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.DL, A.P., INDIA :: PIN: 534 204

Dr. B.R.K.Varma, M.E.,Ph.D. Professor &Head



Offi:08816-229373, 223332 Ext.224 Mobile No : 98493 35863 E-mail: bhrkvarma@gmail.com GSTIN:37AABTS9402K3Z4

13-09-2023

CIRCULAR

This is to inform all the members that the 10th Board of Studies (BOS) meeting of the Department of EEE, SRKR Engineering College, Bhimavaram will be held on 20-09-2023 (Wednesday) at 10:00 AM in PG Simulation Laboratory of the department. All the BOS members are invited to attend the meeting.

Agenda:

- 1. To discuss and finalize the scheme and syllabi for the first year of R23 B. Tech (EEE) course curriculum.
- 2. Any other item with the permission of the chairman.

Head of the Department & BOS Chairman Head of EEE Department S.R.K.R. Engg.College BHIMAVARAM -534 204

Copy to

- 1. The members of BOS
- 2. The Principal, SRKREC
- 3. The Dean, Academics
- 4. Office file



SAGI RAMAKRISHNAM RAJU ENGINEERING COLLEGE (A)

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING (AFFILIATED TO INTUK, KAKINADA (RECOGNISED BY ALL INDIA COUNCIL FOR TECH. EDN., NEW DELHI) (Accredited by NAAC, NBA NEW DELHI)

CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.DL, A.P., INDIA :: PIN: 534 204

Dr. B.R.K.Varma, M.E.,Ph.D. Professor & Head



Offi:08816-229373, 223332 Ext.224 Mobile No : 98493 35863 E-mail: bhrkvarma@gmail.com GSTIN:37AABTS9402K3Z4

Date: 13.09.2023

To Dr. K. Venkata Reddy Professor of EEE, UCEK, JNTU Kakinada Kakinada-533 003.

Dear Sir,

Sub: S.R.K.R. Engineering College EEE Department-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as an Expert Nominated by Vice-Chancellor. It is proposed to discuss and finalize the scheme and syllabi for the 1st year of R23 B. Tech (EEE) course curriculum.

In this regard, you are requested to attend the meeting scheduled to be held on 20.09.2023 at 10.00 AM in PG Simulation Laboratory of EEE Department.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Yours Sincerely,

Dr. B.R.K.Varma Head of the Department

Head of EEE Department S.R.K.R. Engg.College BHIMAVARAM -534 204



(AFFILIATED TO JNTUK, KAKINADA (RECOGNISED BY ALL INDIA COUNCIL FOR TECH. EDN., NEW DELHI) (Accredited by NAAC, NBA NEW DELHI)

Dr. B.R.K.Varma, M.E.,Ph.D. **Professor & Head**



CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.Dt., A.P., INDIA :: PIN: 534 204 Offi:08816-229373, 223332 Ext.224 Mobile No : 98493 35863 E-mail: bhrkvarma@gmail.com GSTIN:37AABTS9402K3Z4

Date: 13.09.2023

To Dr. M. Damodara Reddy Professor Department of EEE, College of Engineering, Sri Venkateswara University, Tirupati-517502.

Dear Sir,

Sub: S.R.K.R. Engineering College EEE Department-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Subject Expert from outside Parent University. It is proposed to discuss and finalize the scheme and syllabi for the 1st year of R23 B. Tech (EEE) course curriculum.

In this regard, you are requested to attend the meeting scheduled to be held on 20.09.2023 at 10.00 AM in PG Simulation Laboratory of EEE Department.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Yours Sincerely,

Dr. B.R.K.Varma

Head of the Department

Head of EEE Department S.R.K.R. Engg.College BHIMAVARAM -534 204



(AFFILIATED TO INTUK, KAKINADA (RECOGNISED BY ALL INDIA COUNCIL FOR TECH. EDN., NEW DELHI) (Accredited by NAAC, NBA NEW DELHI)

CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.Dt., A.P., INDIA :: PIN. 534 204

Dr. B.R.K.Varma, M.E.,Ph.D. Professor &Head



Offi:08816-229373, 223332 Ext.224 Mobile No : 98493 35863 E-mail: bhrkvarma@gmail.com GSTIN:37AABTS9402K3Z4

Date: 13.09.2023

To Dr. Ch. V.V.S. Bhaskara Reddy Professor, Department of Electrical Engineering, College of Engineering Andhra University, Visakhapatnam-530003.

Dear Sir,

Sub: S.R.K.R. Engineering College EEE Department-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Subject Expert from outside Parent University. It is proposed to discuss and finalize the scheme and syllabi for the 1st year of R23 B. Tech (EEE) course curriculum.

In this regard, you are requested to attend the meeting scheduled to be held on 20.09.2023 at 10.00 AM in PG Simulation Laboratory of EEE Department.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Yours Sincerely,

Dr. B.R.K.Varma Head of the Department

Head of EEE Department S.R.K.R. Engg.College BHIMAVARAM -534 204

(AFFILIATED TO INTUK, KAKINADA (RECOGNISED BY ALL INDIA COUNCIL FOR TECH. EDN., NEW DELHI) (Accredited by NAAC, NBA NEW DELHI)

CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.Dt., A.P., INDIA :: PIN: 534 204

Dr. B.R.K.Varma, M.E.,Ph.D. Professor &Head



Offi:08816-229373, 223332 Ext.224 Mobile No : 98493 35863 E-mail: bhrkvarma@gmail.com GSTIN:37AABTS9402K3Z4

Date: 13.09.2023

To Dr P.Sankar Assistant Professor Department of Electrical Engineering National Institute of Technology AP, Tadepalligudem, -534102.

Dear Sir,

Sub: S.R.K.R. Engineering College EEE Department-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Subject Expert from outside Parent University. It is proposed to discuss and finalize the scheme and syllabi for the 1st year of R23 B. Tech (EEE) course curriculum.

In this regard, you are requested to attend the meeting scheduled to be held on 20.09.2023 at 10.00 AM in PG Simulation Laboratory of EEE Department.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Yours Sincerely,

Dr. B.R.K.-Varma Head of the Department Head of EEE Department S.R.K.R. Engg.College BHIMAVARAM -534 204



(AFFILIATED TO INTUK, KAKINADA (RECOGNISED BY ALL INDIA COUNCIL FOR TECH. EDN., NEW DEL HI) (Accredited by NAAC, NBA NEW DELHI)

CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.Dt., A.P., INDIA :: PIN: 534 204

Dr. B.R.K.Varma, M.E.,Ph.D. Professor &Head



Offi:08816-229373, 223332 Ext.224 Mobile No : 98493 35863 E-mail: bhrkvarma@gmail.com GSTIN:37AABTS9402K3Z4

Date: 13.09.2023

To Akula Ramesh Principal Engineer, Mercedes Benz Research and Development India, Bangalore.

Dear Sir,

Sub: S.R.K.R. Engineering College EEE Department-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Representative from Industry/Corporate Sector/Allied Area Relating to Placement. It is proposed to discuss and finalize the scheme and syllabi for the 1st year of R23 B. Tech (EEE) course curriculum.

In this regard, you are requested to attend the meeting scheduled to be held on 20.09.2023 at 10.00 AM in PG Simulation Laboratory of EEE Department.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Yours Sincerely,

Dr. B.R.K.Varma Head of the Department

Head of EEE Department S.R.K.R. Engg.College BHIMAVARAM ~534 204



(AFFILIATED TO JNTUK, KAKINADA (RECOGNISED BY ALL INDIA COUNCIL FOR TECH. EDN., NEW DELHI) (Accredited by NAAC, NBA NEW DELHI)

CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.Dt., A.P., INDIA :: PIN: 534 204

Dr. B.R.K.Varma, M.E.,Ph.D. Professor & Head



Offi:08816-229373, 223332 Ext.224 Mobile No : 98493 35863 E-mail: bhrkvarma@gmail.com GSTIN:37AABTS9402K3Z4

Date: 13.09.2023

To Dr.G.Kasi Viswanadha Raju Lead Specialist, Power System Consulting, Vestas Technology R&D Chennai-600119.

Dear Sir,

Sub: S.R.K.R. Engineering College EEE Department-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Postgraduate Meritorious Alumni. It is proposed to discuss and finalize the scheme and syllabi for the 1st year of R23 B. Tech (EEE) course curriculum.

In this regard, you are requested to attend the meeting scheduled to be held on 20.09.2023 at 10.00 AM in PG Simulation Laboratory of EEE Department.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Yours Sincerely,

Dr. B.R.K.Varma Head of the Department Head of EEE Department S.R.K.R. Engg.College BHIMAVARAM -534 204



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (AUTONOMOUS) (Affiliated to JNTUK, Kakinada), (Recognised by AICTE, New Delhi) Accredited by NAAC with 'A+' Grade Recognised as Scientific and Industrial Research Organisation CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.Dt., A.P., INDIA :: PIN: 534 204

Date : 20-9-2023

Members of Board of Studies

| S. No | Category Name Pos | | Position | Signature | | |
|----------|--|----------------------------------|---|-----------------|--|--|
| 1 | Chairman | Dr. B.R.K.Varma | Professor & Head Dept. of EEE SRKR Engineering College China Amiram, Bhimavaram-534204 | BAL) 20 9/23 | | |
| 2 | Expert Nominated by Vice-Chancellor | Dr. K.Venkata Reddy | Professor of EEE, UCEK JNTUK, Kakinada-533003 | Attended Obline | | |
| 3 | | Dr. M. Damodara Reddy | Professor, Department of EEE College of Engineering, Sri Venkateswara University Tirupati-517502 | Attended oneine | | |
| 4 | Subject Experts from outside Parent Universities | Dr. Ch. V.V.S. Bhaskara Reddy | Professor, Dept. of EEE, College of Engineering, Andhra University, Visakhapatnam-530003. | Attended oneine | | |
| 5 | | Dr P.Sankar | Assistant Professor Dept. of EEE, NIT AP, Tadepalligudem, -534102,AP | Attended oneine | | |
| 6 | Representative from Industry/Corporate Sector/Allied Area Relating to Placement | Akula Ramesh | Principal Engineer, | | | |
| 7 | Postgraduate Meritorious Alumnus | Dr.G.Kasi Viswanadha Raju | Lead Specialist, Power System Consulting, Vestas Technology R&D, Chennai-600119 | Affended areine | | |
| 8 | | Dr. P.Kanta Rao | Professor, Dept. of EEE SRKR Engineering College | Prost 2 | | |
| 9 | Faculty of each | Prof. N.Srinivasu | Professor, Dept. of EEE SRKR Engineering College | N. Sninin | | |
| 10 | specialization | Dr. M.Sai Veerraju | Professor, Dept. of EEE SRKR Engineering College | Mini | | |
| 11 | Dr. M.Siva Rama Associate P | | Associate Professor, Dept. of EEE SRKR Engineering College | Unformer | | |
| 12 | Student Members | Mr. V. Kishore Kumar | 20B91A02H2 B.Tech., EEE, 2020-2024 Batch | - | | |
| 13 | Student Members | Ms. N. Harika | 21B91A02B0 B.Tech., EEE, 2021-2025 Batch | Notlaikg. | | |

Agenda:

1. To discuss and finalize the scheme and syllabi for the first year of R23 B. Tech (EEE) course curriculum.

2. Any other item with the permission of the chairman.

BOS MINUTES

| | | I/IV B. Tech | Resolution | | | |
|-------|---|----------------------------------|--|--|--|--|
| Sl.no | Suggestion | BOS Member | Resolution | | | |
| 1 | Basic Electrical & Electronics Engineering (Part-A) Electro-magnetic concepts should be included to understand theory of machines in unit-2. | Dr. G. Kasi Viswanadha Raju | As it is a basic course, resolved to include in machines courses later for EEE students. | | | |
| 2 | Basic Electrical & Electronics Engineering (Part-A) Rearrange the topics in "Electricity Bill" from Definition of 'Unit' to tariff calculations. Introduce some self-learning concepts like selection of inverters, UPS, batteries, motors, etc., for purpose of student projects. | Dr P. Sankar | Suggested changes will be incorporated in 'electricity bill' topic. Not considered as 'EEE Workshop' activity includes this equipment. | | | |
| 3 | Basic Electrical & Electronics Engineering (Part-A) ☆ Better to keep latest technologies instead of conventional machines. | Dr. Ch. V.V.S. Bhaskara Reddy | Resolved to include 'Othe electrical machines: Steppe motor, BLDC Motor'. | | | |
| 4 | Basic Electrical & Electronics Engineering (Part-A) Include fundamentals of measuring instruments. Why 3-phase Induction machines are included in the course without introducing 3-phase concepts/ terminology. For EEE students better to study "Circuit Analysis" course before studying "BEEE" course. | Dr. M. Damodara Reddy | Resolved to include MC & M Instruments and Single-Phas Energy meter. Resolved to include only working principle of 3-phas Induction Motor. Not considered as BEEE cours is a Common Course. | | | |
| 5 | Basic Electrical & Electronics Engineering (Part-B) ❖ Include the concepts of registers and counters. ❖ Is it necessary to study PN junction diode again in the curriculum. | Dr. Ch. V.V.S. Bhaskara Reddy | Resolved to include 'Simple examples of two-bit Register and Counters'. Resolved to include for the sak of revision. | | | |
| 6 | Basic Electrical & Electronics Engineering (Part-B) Introduce the basics of Operational Amplifiers. | Dr P. Sankar | Not considered due to the difficulty in coverage. | | | |
| 7 | Electrical & Electronics Engineering Workshop In experiment-4; Apart from measuring earth resistance is there any other take away point or not? In experiment-6; Along with MCB protection include fuse protection also. | Dr. G. Kasi Viswanadha Raju | Students will also learn abo earth pit construction. Resolved to include 'Fu Protection'. | | | |

D

0

| | In experiment-7; Does student understand the concept of measuring solar power without knowing theory behind it. | | Resolved to include for providing practical skills. |
|----|--|--------------------------------|---|
| 8 | Electric Circuit Analysis - I Remove replicant topics in unit-1 which are covered in BEEE course and include network topologies. Include power measurement method (Two-wattmeter method) in unit-3. Include Tellegen's theorem in unit-5. | Dr. M. Damodara Reddy | Resolved to remove KVL & KCL and not to include network topology due to coverage difficulty. Resolved to include 'Power in 3- phase circuits' and Two- wattmeter method in future course. Resolved to include Tellegen's theorem and remove Milliman's theorem and Compensation theorem. |
| 9 | Electric Circuit Analysis - I Magnetic circuit concepts are missing in the course. | Dr. G. Kasi Viswanadha Raju | Resolved to include only Electric Circuit Analysis topics. |
| 10 | Electric Circuit Analysis - I Add frequency variation effects in RLC resonance circuits. | Dr P. Sankar | Resolved to include suggested change. |
| 11 | Electrical Circuits Laboratory Replace choke coil with any other inductors. Replace experiment-1 with modern equipment as it is outdated. | Dr. G. Kasi Viswanadha Raju | Resolved to include iron core inductor and v-i characteristics of filament lamp. |
| 12 | Electrical Circuits Laboratory Include an experiment to design a coil for general specifications. Merge experiments on network theorems and accommodate new experiments. | Dr P. Sankar | Resolved to consider while designing future courses. |
| 13 | Topics in the curriculum should be program specific. Identify equipment's like PQ analyser, Solar irradiance meter, wind speed, Data logging, Insolation tester, etc. | Dr P. Sankar | Resolved to consider in future courses. |
| 14 | Syllabus can be modified beyond 20% from university syllabus on this course. | Dr. K. Venkata Reddy | Resolved to include changes as per suggestion. |
| 15 | Include experiments on other microcontrollers like ESP32, ESP8266, Raspberry-Pi in skill- oriented course. | | Resolved to include in future courses of R23 curriculum. |

2023 Head of EEE Department S.R.K.R. Engl. College RHIMAVARAM - 534 206



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (AUTONOMOUS)

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada) Accredited by NAAC with 'A+' Grade. Recognised as Scientific and Industrial Research Organisation SRKR MARG, CHINA AMIRAM, BHIMAVARAM – 534204 W.G.Dt., A.P., INDIA

| Regulation: R23 | | I / IV - B.Tech. I - Semester | | | | | | | | |
|---|--|-------------------------------|----|----|----|-----|--------|--------|----------------|--|
| ELECTRICAL & ELECTRONICS ENGINEERING | | | | | | | | | | |
| SCHEME OF INSTRUCTION & EXAMINATION | | | | | | | | | | |
| (With effect from 2023-24 admitted Batch onwards) | | | | | | | | | | |
| Course Code | Course Name | Category | L | Т | Р | Cr | C.I.E. | S.E.E. | Total Marks | |
| B23HS1101 | Communicative English | HS | 2 | 0 | 0 | 2 | 30 | 70 | 100 | |
| B23BS1101 | Linear Algebra & Calculus | BS | 3 | 0 | 0 | 3 | 30 | 70 | 100 | |
| B23BS1102 | Engineering Physics | BS | 3 | 0 | 0 | 3 | 30 | 70 | 100 | |
| B23EE1101 | Basic Electrical and Electronics Engineering | ES | 3 | 0 | 0 | 3 | 30 | 70 | 100 | |
| B23ME1101 | Engineering Graphics | ES | 2 | 0 | 2 | 3 | 30 | 70 | 100 | |
| B23IT1101 | IT Workshop | ES | 0 | 0 | 2 | 1 | 30 | 70 | 100 | |
| B23HS1102 | Communicative English Lab | HS | 0 | 0 | 2 | 1 | 30 | 70 | 100 | |
| B23BS1104 | Engineering Physics Lab | BS | 0 | 0 | 2 | 1 | 30 | 70 | 100 | |
| B23EE1102 | Electrical and Electronics Engineering Workshop | ES | 0 | 0 | 3 | 1.5 | 30 | 70 | 100 | |
| B23HS1103 | NSS/NCC/Scouts & Guides/Community Service | HS | - | - | 1 | 0.5 | 100 | 0 | 100 | |
| | | TOTAL | 13 | 00 | 12 | 19 | 370 | 630 | 1000 | |

Dean Academics S.R.K.B. Engl. College (A) CHINA AMITAM

PRINCIPAL S.R.K.R. Engineering College(A) China Amiram Bhimavaram - 534 204. W G Dist Andhra Pradesh



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (AUTONOMOUS)

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada) Accredited by NAAC with 'A+' Grade. Recognised as Scientific and Industrial Research Organisation SRKR MARG, CHINA AMIRAM, BHIMAVARAM – 534204 W.G.Dt., A.P., INDIA

| Regulation: R23 | | I / IV - B.Tech. II - Semester | | | | | | | | | | | | | | | | | |
|--|---|--------------------------------|----|---|----|-----|-----|-----|------|----------------|---|----------|---|---|---|----|--------|--------|----------------|
| ELECTRICAL & ELECTRONICS ENGINEERING SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2023-24 admitted Batch onwards) | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | Course Code | Course Name | Category | L | Т | Р | Cr | C.I.E. | S.E.E. | Total Marks |
| | | | | | | | | | | B23BS1201 | Differential Equations & Vector Calculus | BS | 3 | 0 | 0 | 3 | 30 | 70 | 100 |
| B23BS1203 | Chemistry | BS | 3 | 0 | 0 | 3 | 30 | 70 | 100 | | | | | | | | | | |
| B23CE1201 | Basic Civil & Mechanical Engineering | ES | 3 | 0 | 0 | 3 | 30 | 70 | 100 | | | | | | | | | | |
| B23EE1203 | Electrical Circuit Analysis-I | PC | 3 | 0 | 0 | 3 | 30 | 70 | 100 | | | | | | | | | | |
| B23CS1201 | Introduction to Programming | ES | 3 | 0 | 0 | 3 | 30 | 70 | 100 | | | | | | | | | | |
| B23BS1205 | Chemistry Lab | BS | 0 | 0 | 2 | 1 | 30 | 70 | 100 | | | | | | | | | | |
| B23ME1202 | Engineering Workshop | ES | 0 | 0 | 3 | 1.5 | 30 | 70 | 100 | | | | | | | | | | |
| B23EE1204 | Electrical Circuits Lab | PC | 0 | 0 | 3 | 1.5 | 30 | 70 | 100 | | | | | | | | | | |
| B23CS1202 | Computer Programming Lab | ES | 0 | 0 | 3 | 1.5 | 30 | 70 | 100 | | | | | | | | | | |
| B23HS1202 | Health and wellness Yoga and sports | HS | - | - | 1 | 0.5 | 100 | 0 | 100 | | | | | | | | | | |
| | | | 15 | 0 | 12 | 21 | 370 | 630 | 1000 | | | | | | | | | | |

an Academics Dean S.R.K.B 5.

PRINCIPAL S.R.K.R. Engineering College(A) China Amiram Bhimavaram 534 204. W G Dist Andhra Fradesh