

KAMARAJ

COLLEGE OF ENGINEERING & TECHNOLOGY

S.P.G. Chidambara Nadar - C. Nagammal Campus,
S.P.G.C. Nagar, K.Vellakulam - 625 701, Near Virudhunagar, Madurai District.

Accredited by NAAC with "A" Grade



E-SHOTS

**February,
March, April
& May
2017,
11th Edition
Issue 10**

**NEWSLETTER includes
Articles on**

- Vision, Mission
- Importance of Artificial Intelligence in Electrical Engineering
- Quote
- GATE corner
- Events happened in the department
- Achievement by the faculty members
- Student achievements
- Placement Record

VISION OF THE DEPARTMENT

- ❖ *“To make the Department of Electrical and Electronics Engineering of this Institution the unique of its kind in the field of Research and Development activities in this part of world”.*

MISSION OF THE DEPARTMENT

- ❖ *“To impart highly innovative and technical knowledge in the field of Electrical and Electronics Engineering to the urban and unreachable rural student folks through Total Quality Education”*

Ever Energetic Engineers

IMPORTANCE OF ARTIFICIAL INTELLIGENCE IN ELECTRICAL ENGINEERING

Electrical engineering deals with generation, transmission and distribution of electricity. Electrical power is one of the most critical components for the economic growth and welfare of nations. The existence and development of adequate infrastructure is essential for sustained growth of the Indian economy. A continuous and reliable supply of electricity is necessary for the functioning of today's modern and advanced society.

Since the early to mid-1980s, most of the effort in power systems analysis has turned away from the methodology of formal mathematical modeling which came from the areas of operations research, control theory and numerical analysis. Now, Artificial Intelligence has grown predominantly in recent years and has been applied to various areas of power systems.

Need for AI in Power Systems: Power system analysis by conventional techniques becomes more difficult because of

- (i) Complex, versatile and large amount of information which is used in calculation, diagnosis and learning.
- (ii) Increase in the computational time period and accuracy due to extensive and vast system data handling.

Commonly, artificial intelligence is the intelligence of a hypothetical machine or computer which can accomplish any intellectual assignment successfully which a human being can accomplish like the ability to think, reason, find the meaning, generalize, distinguish, learn from past experience or rectify their mistakes.

AI techniques have become popular for solving different problems in power systems like control, planning, scheduling, forecast, etc. These techniques can deal with difficult tasks faced by applications in modern large power systems with even more interconnections installed to meet increasing load demand. The application of these techniques has been successful in many areas of power system engineering.

AI Tools used in Electrical Engineering:

1. Search and optimization- Heuristics, swarm intelligence algorithms and Genetic algorithms.
2. Logic – Fuzzy logic.
3. Probabilistic methods for uncertain reasoning- Bayesian inference algorithm, Decision (game) theory.
4. Classifiers and statistical learning methods- Neural network, Kernel method and decision tree.

QUOTE

QUOTE

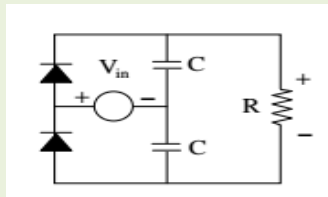
**“KNOWING IS NOT ENOUGH, WE MUST APPLY.
WILLING IS NOT ENOUGH, WE MUST DO”.**

-Bruce Lee, Martial artist & Actor

GATE CORNER

GATE CORNER

1. In the following circuit, the input voltage V_{in} is $100 \sin(100\pi t)$. For $100\pi RC = 50$, the average voltages across R (in volts) under steady-state is nearest to



- (a) 100 (b) 31.8 (c) 200 (d) 63.6

Answer:












Voltage across R = $2 V_m = 2 * 100$

(C) 200



EVENTS HAPPENED IN THE DEPARTMENT

- 💡 A Workshop for “Energy Efficient Light” by Mr. P.M. Natarajan Director, M/s. Enovat Electronics, Madurai was conducted on 02.03.2017.
- 💡 A National Level Conference on “Advanced Technologies in Electrical Engineering (ATEE – 2017)” was organized on 31.03.2017 and chaired by Mr. S.N. Arunachalam, Proprietor, Easan Electricals, Rajapalayam.
- 💡 A Special Lecture on “Substation Layout and Bus bar arrangements” was given to II year EEE students on 11.02.2017 by Er M. Raja Rajeshwar Executive Engineer Operation 230/110 KV Substation Kavanur Paramakudi.
- 💡 A Guest Lecture on “Blind Spot” was given to EEE students on 18.02.2017 by Mr. Sangeeth Sharma, Branch Manager, Dhnalakshmi Financial Services, Madurai.
- 💡 A Special Lecture on “Methods of Voltage Control” was given to II year EEE students on 17.03.2017 by Dr S. Jeyadevi, HoD/EIE, Kamaraj College of Engineering & Technology.
- 💡 A training program on “Internet of Things using Raspberry Pi” was given to II & III year EEE students on 24.03.2017 by Mr A. Arul Kumar, AP/MTR and Mrs C. NagaDevi AP/EEE, Kamaraj College of Engineering & Technology.
- 💡 A Special Lecture on “Importance of JAVA for Electrical and Electronics Engineering students” was given to II year EEE students on 01.04.2017 by our distinguished alumni Er. M. Muneeswaran, Technical Staff, Zoho Corporation, Chennai.
- 💡 A Guest Lecture on “Embedded Systems Application” was given to III year EEE students on 04.04.2017 by Mr. A. John Paul Antony, AP/IT, Kamaraj College of Engineering & Technology.
- 💡 A technical contest on “Demonstration of Home Appliances” was conducted on 11.03.2017 for EEE students.
- 💡 A “National level project contest” was organized on 01.04.2017 for IV year students.


ACHIEVEMENT BY THE FACULTY MEMBERS


-  **Mr. B. Gurukartik Babu, AP/EEE** was one of the co-author and published a book titled “**Fundamentals of Nanoscience**” in **ARS Publications**.
-  **Dr. D.Prince Winston, ASP/EEE** has published two papers titled “**Integrated PV/T solar still- A mini- review**” and “**An enhanced optimization based algorithm for intrusion detection in SCADA network**” in Elsevier.
-  **Dr. D. Prince Winston, ASP/EEE** was a consultant for **Biometric automation** at **Dharmarathina Textiles (P) Ltd, Kattangudi**.
-  **Dr. S. Kalyani- HoD/EEE, Mrs. B. Noorul Hamitha- AP/EEE, Mrs. V. Chandra- AP/EEE, Mr. M. Sudalaimani- AP/EEE, Mrs. N. Amutha Priya- AP/EEE, Mrs. C. Nagadevi- AP/EEE, Mr. D. Mariappan- AP/EEE and Ms. P. M. Devie- AP/EEE** have cleared NPETL online exam in **Elite** category.
-  **Mrs. V. Chandra- AP/EEE and Mrs. M. Rajagomathi** was certified as **LabVIEW Associate Developer** by **National Instruments**.
-  **Mr. Mr. A. Karuppasamy, AP/EEE** underwent an **Industrial Training** on “**Introduction to Industrial Power Systems**” at **L&T Switchgear Training Center, Coonoor** during 20.03.2017 to 22.03.2017
-  **Ms. P. Subalakshmi and Ms. M. Meenakshi** of **III EEE** won **I prize** in **Paper Presentation - INFEST2K17** at **Kamaraj College of Engineering and Technology**.
-  **Mr. T. Manoj and Mr. D. Yogesh** of **IV EEE** has shortlisted for **Round - II** in **Niyantra 2017** contest.
-  **Ms. M. Mareeswari, Ms. K. Ramalakshmi and Ms. A. Saranya** of **2013-17 batch** published a paper titled “**Efficient Transformer less MOSFET Inverter for Grid-Tied Photovoltaic System**” under the guidance of **Mrs. B. Noorul Hamitha, AP/EEE** in **International journal of Advanced Research in Computer and Communication Engineering- IJARCCCE**.
-  **Ms. C. Rajarajeswari, Ms. K. Sivasundari and Ms. S. Shalini** of **2013-17 batch** published a paper titled “**Harmonic elimination of a Photo –Voltaic based Cascaded H-Bridge Multilevel Inverter using ANFIS for Non-linear Loads**” under the guidance of **Mr. A. Karuppasamy, AP/EEE** in **International journal of Advanced Research in Computer and Communication Engineering- IJARCCCE**.
-  **Ms. S. HemaLatha, Ms. M. KaviyaSelvi and Ms. R. Vinothini** of **2013-17 batch** published a paper titled “**Integration of Battery and Super Capacitor for Energy Storage System**” under the guidance of **Mr. S. Jegan, AP/EEE** in **International journal of Advanced Research in Computer and Communication Engineering- IJARCCCE**.

STUDENT ACHIEVEMENTS

-  **Mr. B. Arun, Mr. C. Nagaraj and Ms. M. AmmuBakya** of **III EEE** won **I prize** in **Electro Brain Hunt - GYAN MITRA17** held at **Mepco Schlenk Engineering College, Sivakasi**.
-  **Mr. L. Sheik Anvar Ali, Mr. V. Nanthagopal, Mr. M. Gokul and Mr. M. Raghu** of **2013-17 batch** published a paper titled “**Smart telemetering, Telebiling**”

and Tele conditional Access control for Electrical System” under the guidance of Mrs. V. Chandra, AP/EEE in International journal of Advanced Research Trends in Engineering and Technology- IJARTET.

 **Four student batches of 2013-17 batch have published their papers in International conference and twenty four student batches of 2013-17 batch have published their papers in National conferences.**

 **Sixteen of our students have cleared NPETL online exam out of them Mr. T. Manoj Kumar, Mr. D. Yogesh and Ms. K. R. Nandhiney of III year EEE have got Elite certification.**

PLACEMENT RECORD

The following list is the placement record of the 2013-17 batch students during February to May, 2017.

| S. No | Name of the Student | Name of the Company |
|-------|------------------------|----------------------------|
| 1 | Mr. Rajesh. H | Smart |
| 2 | Ms. Anitha. S | |
| 3 | Mr. Vinod John. P | Smart & Amazon |
| 4 | Ms. AnandhJothi. K | Amazon& |
| 5 | Mr. Raju. G | Ind Auto Filters |
| 6 | Mr. Ananda Raj | |
| 7 | Mr. Rohan. S | ECARE Technologies |
| 8 | Mr. Rajesh Kanna. H | Ethnus |
| 9 | Ms. Raja Rajeshwari. M | Surya Informatics solution |
| 10 | Mr. Raghul. R | Federal Bank |

| | | |
|----|---------------------------|--------------------------|
| 11 | Mr. Velmurugan. S | Apptivo |
| 12 | Ms. AndalPriyadharshini.V | Tech Mahindra BPO |
| 13 | Mr. Siva. T | Wind Care India Pvt. Ltd |
| 14 | Mr. Ananda Raj | |
| 15 | Mr. Velmurugan. S | |
| 16 | Mr. Sudharsan. R. N | |
| 17 | Mr. AyyanThiruppathi.M | |
| 18 | Mr. Hari Shankar. G | |
| 19 | Mr. Venkatesh. M | |
| 20 | Mr. HalidAhamed.M | |
| 21 | Mr. Solaiyappan. P | |
| 22 | Mr. Ragavan. P | |
| 23 | Mr. Ramkumar. B | Solartis |
| 24 | Mr. Suriya Prakash. M | |
| 25 | Mr. Kumaresh M | |
| 26 | Ms. Nandhini.B | Venture Lighting |
| 27 | Ms. Lakshmipriya. V | |
| 28 | Ms. Rajarajeshwari. C | |
| 29 | Ms. Mareeswari. M | |
| 30 | Ms. Shruthi. M | |
| 31 | Mr. Kumaresh. M | |
| 32 | Mr. Basha Malik. T | Ascent Circuits |
| 33 | Ms. KIRTHIKA .V | |
| 34 | Mr. ISSAC PRABHU. P | |
| 35 | Mr. KHALIDH MON. A | |
| 36 | Mr. SIVA@CHOCKALINGAM.S | |
| 37 | Mr. GOKUL. M | |
| 38 | Mr. NAVEEN RAJ. P | |

| | | |
|----|-------------------------------------|---------------------|
| 39 | Ms. NIVETHA. R | |
| 40 | Ms. ABINAYA RENUGA. J | |
| 41 | Ms. LOGESHWARI.J | |
| 42 | Mr. Gengaram. K | Appasamy Associates |
| 43 | Mr. ArunKumar.M | |
| 44 | Ms. Hemalatha. S | Renault Nissan |
| 45 | Mr. Hari Shankar.G | Mind Tree |
| 46 | Mr. Mohammed Azharudhin. K. A. S | Linga Instruments |
| 47 | Mr. Raghu. M | |

Chief Editor:

Dr.S.Kalyani, Professor and Head/EEE

Editor:

Ms. G. Saranya Devi, Assistant Professor/EEE

Co - Editors:

Ms. C. Amreetha - II EEE B

Mr. B. Arun – II EEE B

Mr. A. ManikandaGokul – II EEE A

Ms. T. Nandhini – II EEE A