

Department of Electrical & Electronics Engineering

(Accredited by NBA, New delhi)

E - SHOTS

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NEWSLETTER includes
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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”

INDUSTRY 4.0



Why are there still so many jobs?

Automation has been happening for over 200 years. So far, it has created a lot more work than it replaced. Will Industry 4.0 be different?

The specter of the dark factory is haunting industrialized countries. It is dark because there aren't any people in it and no need to turn on the lights. Machines will do all the work. If this vision were to become reality, it would challenge the very foundations of our societies.

In such a pessimistic scenario, a large number of people would simply be cut off from the means of subsistence. Wages are the central mechanism for the distribution of wealth. If they

were to diminish greatly, the implications would be revolutionary. The stage would be set for trouble.

INDUSTRY 4.0

Historically machines have created far more jobs than they have replaced, but this time will be different says MIT's Andrew McAfee, author of the book *The Second Machine Age*. With the advent of Artificial Intelligence (AI), machine learning and the Internet of Things (IoT) – in short, Industry 4.0 – machines are quickly getting better at performing both manual and cognitive tasks without much human intervention. In the past machines have augmented human labor, according to McAfee, “Now, they are replacing it.”

Oxford economists Carl Benedikt Frey and Michael Osborne published a widely-noted study on the effects of automation in 2013. It concluded that up to 47 percent of jobs in the USA are at high risk of being made redundant. Subsequent studies predicted similar figures for other countries.

This would be very worrying. But is it true?

MACHINES CREATE JOBS AND REPLACE TASKS

The facts, so far, do not bear this out. An increasing number of studies show a positive correlation between automation and jobs – not only in the past, but also under the conditions of Industry 4.0.

For example, the positive impact of robots on employment can be seen in Germany, says Joe Gemma, President of the International Federation of Robotics (IFR). The country's automotive sector holds the top position for

robot density in Europe – with about 1,150 industrial robots per 10,000 employees. “As a result,” says Gemma, “employment in the German car industry rose by about 93,000 jobs in the period 2010 to 2015.” Similar trends can be observed in the UK and in America.

The biggest market for industrial robots is China, a relative newcomer to modern automation. Some observers worry that the dark factory will become a reality in that country. This is unlikely as Chinese robot density at present is extremely low – at around 30 robots per 10,000 workers. Automation in Chinese tech-heavy industries, such as cars, does not primarily serve to cut jobs. It serves to make these firms competitive and thus save jobs.



In addition, it is not jobs which are replaced by automation – it is tasks within jobs. The implication is that while most jobs will change, they will not disappear. A study published by the McKinsey Global Institute in 2017 comes to the same conclusion: “More occupations will change than will be automated away.”

-WWW.Seimens.com

QUOTES

“Without inspiration the best powers of the mind remain dormant. There is a fuel in us

which needs to be ignited with sparks.” - Johann Gottfried Herder

GATE CORNER

A 4-pole, separately excited, wave wound DC machine with negligible armature resistance is rated for 230 V and 5 kW at a speed of 1200 rpm. If the same armature coils are reconnected to form a lap winding, what is the rated voltage (in volts) and power (in kW) respectively at 1200 rpm of the reconnected machine if the field circuit is left unchanged?

- (A) 230 and 5
- (B) 115 and 5
- (C) 115 and 2.5
- (D) 230 and 2.5

Answer: (B)

Explanation:

In wave wound, no. of parallel paths is 2.

In lap wound, no of parallel paths is $A=p=4$.

Therefore, Rated Voltage = 115V

As no. of parallel paths is divided into four from two, the voltage reduces to half but power remains the same.

“The Department of Electrical and Electronics Engineering was Reaccredited by National Board of Accreditation, New Delhi for three years (2017-2020)”

EVENTS HAPPENED IN THE DEPARTMENT

- ✚ A Guest lecture on “Job opportunities in India” by Mr.V. Pathy , Ms.V.Alamelu Shobana National Institute of Banking on 05.09.2017 for II & III year EEE Students.

✚ A Guest lecture on “**Power Electronics- An Overview**” by **Mr.J.Gnanavadivel** Mepco Schlenk Engineering College, Sivakasi on 09.09.2017 for III Year EEE students.

✚ A training program on “**Internet of things using Arduino**” was given to III & IV year EEE Students by Technical Experts, CADD Academy Madurai on 12.09.2017 & 13.09.2017.

✚ A Workshop on “**Fundamentals of Nanoscience**” was given to III & IV year students by **Dr.N.Jeyakumaran** ASP/PHY, VHNSN College, Virudhunagar **Dr.K.Geetha,** ASP/BT/KCET **Dr.R.Baskaran** ASP/PT/KCET on 27.09.2017

✚ A Technical Seminar on “**IoT on Embedded Systems**” organized on 04/10/2017. The Resource Persons were **Mr. S. Shanmuga Nathan,** Embedded Trainer, Kalvi Higher Education & Research Institute, Madurai.

✚ A National Level Two day “**SCHOOL LEVEL TECHNICAL CONTEST**” held on 27.10.2017 and 28.10.2017. About 400 school students participated in various contests.



✚ The Anna University CFD Approved Seven Day FDTP on “**EE8251- Circuit Theory**” during 23rd - 29th November, 2017.



✚ A one week Training program on “**Industrial Automation (PLC & SCADA)**” in association with **SS Technovation, Coimbatore** during 18th – 22nd December, 2017.



✚ A Two day workshop on “**Basics of Lab VIEW**” during 28th - 29th December, 2017.

✚ A One day workshop on “**Importance of Project in Your Career**” during 22nd December, 2017. The Resource Person was **Mr.Murali Babu,** Managing Director & CEO, Intellion Technologies Chennai.



ACHIEVEMENTS BY FACULTY MEMBERS

- ✚ **Dr. D. Prince Winston, ASP/EEE** has published a paper “Implementation of a Switched PV technique for rooftop 2KW solar PV to Enhance power during unavoidable partial shading conditions.” **Journal of Power electronics- SCI Journal in October, 2017**
- ✚ **Dr. D. Prince Winston, ASP/EEE** Received Consultancy work for Energy Auditing from *Kaycee Plasto Pack, Virudhunagar on 05.10.2017.*
- ✚ **Dr. S. Kalyani, Prof & HoD/EEE** has got **Elite with gold certificate and become the subject Topper with a score of 95%** in NPTEL online Certification course “**Power System Analysis**” held on October 2017.
- ✚ **Ms.P.M.Devie AP/EEE and, Mr.S.Jegan AP/EEE** has got Elite certificate in NPTEL online Certification course “**Power System Analysis**” held on October 2017.
- ✚ **Mr.A.KaruppaSamy AP/EEE** has successfully completed the NPTEL online Certification course “**Power System Analysis**” held on October 2017

- ✚ **Mrs.V.Chandra AP/EEE and Mr.B.Gurukarthikbabu, AP/EEE** has successfully completed the NPTEL online Certification course “**Electrical Machines-I**” held on October 2017.
- ✚ **Dr. D. Prince Winston, ASP/EEE** Visited Srinivasa Mineral water plant, thiruchuli, Horn Bill Mineral water plant, Kallorani and Kuruntham software company Aruppukottai on 22.11.2017.

- ✚ **Ms. A. Shruthi, AP/EEE** has presented a paper titled “ **Performance Measures of an Efficient Compensator Design for a Buck Converter**” in Second International Conference on Emerging Electrical systems and Control”, ICEESC-2017 held at Sethu Institute of Technology, Kariapatti on 14th December 2017.

GUEST LECTURE/LECTURE DELIVERED BY FACULTY MEMBERS

- ✚ **Mr. M. Sudalimani, AP/EEE** delivered a guest lecture on “**Improving Power Quality in AC-DC converter**” at Two Week AICTE Sponsored Faculty Development Program on “**Recent Developments in Modeling, Design and control of Power Converters and Drives**” on November 25, 2017 at Mepco Schlenk Engineering College, Sivakasi.
- ✚ **Mr.A.Thenkani, AP/EEE** delivered a guest lecture on “**Carriers Guidance**” held at

Ayyanadar Janakiammal Polytechnic College, Sivakasi on 23.12.2017.

- ✚ **Mr.D.Mariappan, AP/EEE** delivered a guest lecture on “**Electrical and Electronics engineering**” held at P.S.Chidambara Nadar Senior English School, Virudhunagar on 23.12.2017.
- ✚ **Mrs.M.Rajagomathi, AP/EEE** delivered a guest lecture on “**Know yourself to Prove yourself**” held at Kalasalingam University, Virudhunagar on 29.12.2017.

WORKSHOP/FDPs/ INTERNS ATTENDED BY FACULTY MEMBERS

- ✚ **Mr.K.Ganesan, AP/EEE** has attended a One day Workshop on “**Industrial Harmonic Audit and Consultancy**” held on 07.10.2017 at **KLN College of Engineering, Madurai.**
- ✚ **Mrs.V.Chandra, AP/EEE** has attended **NI Days India 2017** on October 26th at ITC Gardenia, Bangalore
- ✚ **Mr.B.Gurukarthikbabu, AP/EEE** has attended a Two Week AICTE Sponsored Faculty Development Program on “**Recent Trends and applications of High Voltage Engineering**” during **November 6-19, 2017** at National Engineering College, Kovilpatti
- ✚ **Mr.A.Thenkani, AP/EEE** has attended a Two Week AICTE Sponsored Faculty Development Program on “**Recent Developments in Modeling, Design and control of Power Converters and Drives**”

during November 13-25, 2017 at Mepco Schlenk Engineering College, Sivakasi.

- ✚ **Mr.D.Mariappan, AP/EEE** has attended a Two Week AICTE Sponsored Faculty Development Program on “**Power Converters, Control and Grid Integration of Renewable Energy Sources**” during November 15-29, 2017 at Sri Sivasubramaniya Nadar (SSN) college of Engineering, kalavakkam.
- ✚ **Mr. S. Jegan, AP/EEE and Mr. K. Ganesan, AP/EEE** have attended a Two Week AICTE Sponsored Faculty Development Program on “**Industrial Automation**” during November 20-December 4, 2017 at Thiagarajar college of Engineering, Madurai.
- ✚ **Dr. D. Prince Winston, ASP/EEE** has attended a One day Workshop on “**IOT Renewable Energy**” held on November 27, 2017 at **CPRI, Bangalore.**
- ✚ **Mr. B. Gurukarthikbabu, AP/EEE** has participated in Indian Nano User Program - Familiarization Workshop on “**Nano Fabrication Technologies**” organized by Centre for Nano science & Engg, Indian Institute of Science, Bangalore during 28 - 30 November 2017.
- ✚ **Dr. S. Kalyani, Prof & HoD/EEE** has attended a Three Day Training Program on “**Neuro-linguistic programming (NLP)**” during November 28-30, 2017 at V.V.Vanniaperumal College for Women, Virudhunagar

- ✚ **Ms. P. M. Devie, AP/EEE and Mrs. C . Nagadevi, AP/EEE** have attended one week **GIAN course on “Intelligent Electrical Power Grids”** organized by EEE, NIT-Tiruchirappalli, during November 27-December 1, 2017
- ✚ **Ms. P. M. Devie AP/EEE and, Ms. A. Shruthi AP/EEE** have attended a Five Day FDP on **“Data Analytics Tools”** between 13th and 17th of Nov 2017 in association with Oxford University Press India Organized by Department of Information Technology of Kamaraj College of Engineering and Technology.
- ✚ **Mrs. M. Rajagomathi. AP/EEE and, Ms. V. Leelavathy AP/EEE** has attended a Two Day workshop on **“How to connect with Industries”** between 15th and 16th of Nov 2017 Organized by TDP cell of Kamaraj College of Engineering and Technology.
- ✚ **Mrs.Rajagomathi, AP/EEE** has attended two day workshop on **“Image Processing”** at Kongu Engineering College, Erode on 8th & 9th Dec. 2017
- ✚ **Dr. K. Muthulakshmi ASP/EEE** has attended a Two Week AICTE-QIP Sponsored Short Term course on **“Energy and Power Quality Audit Methodlogies”** during November 27- December 10, 2017 at Thiyagarajar college of Engineering, Madurai.
- ✚ **Mrs. B. Noorul Hamitha, AP/EEE** has attended a ISTE Sponsored Two day Seminar on **“Recent Trends in Smart Grid and Industrial Automation”** during 14th-15th December 2017 at **K.L.N College of Engineering, Pottapalayam.**
- ✚ **Ms. V. Leelavathy, AP/EEE** has attended a Three day Training Program on **“Electrical Safety Testing for Household and Industrial Applications”** during 20th-22nd December 2017 at **Mepco Schelnk Engineering College, Sivakasi**
- ✚ **Mrs. J. Jeslin Drusila Nesamalar, AP/EEE** has Visited JKN Solar Generation, Kovilpatti on 30/12/17.
- ✚ **Mrs. N. AmuthaPriya, AP/EEE** has Visited Blueberry Industries, Nagercoil on 16/12/17.
- ✚ **Dr. K. Muthulakshmi ASP/EEE & Mr. K. Ganesan, AP/EEE** has visited STK Transformers, Madurai on 21/12/17.
- ✚ **Mr. A. Karuppa Samy, AP/EEE & Mr. S. Jegan, AP/EEE** has Visited Able Electronics Pvt.Ltd, Coimbatore on 26/12/17.
- ✚ **Dr. S. Kalyani, HoD/EEE, Mrs. B. Noorul Hamitha, AP/EEE & Ms. P. M. Devie, AP/EEE** has visited Saraswathy Packaging Industry, Madurai on 28/12/2017.
- ✚ **Dr. S. Kalyani, HoD/EEE, Mrs. B. Noorul Hamitha, AP/EEE & Ms. P.M. Devie, AP/EEE** has visited Sara Tin Container Manufacturing Industry Madurai on 28/12/2017.
- ✚ **Dr. S. Kalyani, HoD/EEE, Mrs. N.Noorul Hamitha, AP/EEE & Ms. P.M.Devie,**

AP/EEE has visited VVM Rubber, Madurai, Madurai on 28/12/2017.

- ✚ **Ms. S. Kalaivani**, AP/EEE has Visited Raja Rajeshwari Krafts P(Ltd), Sivakasi on 30/12/17.
- ✚ **Mrs. J. Jeslin Drusila Nesamalar**, AP/EEE has Visited JKN Solar Generation, Kovilpatti on 30/12/17.

STUDENTS' ACHIEVEMENTS/ INDUSTRIAL EXPOSURE

- ✚ **Mr. B. Arun of III EEE** has participated “**Google Developers – Hackathon**” in Coimbatore held on 18.08.2017 & 19.08.2017.
- ✚ **Ms. T. Raja Kumari, Ms. L. Vinothini, Ms. P.A. Viveka of IV EEE** has attended Two days national seminar titled “**Biomass energy-Awareness on Waste to Energy conversion Technologies**” organised by The Institution of Engineers(India) and Velammal College of Engineering and Technology held on 18.09.2017 & 19.09.2017.
- ✚ **Mr. K. Vadivel Arun, Mr. K. Balaji , Mr. R. Jhonson Timmy Samuel** students of **III year EEE** who have shown their amazing talents and Who Secured Top Positions among circuit branches (ECE/EEE/EIE/CSE/IT) in Techno vision Mini-2K17 Mini Project Contest held on **10.10.2017 & 11.10.2017**.



- ✚ **Mr. N. Madhan Chakkravarthy. Mr. P.Tendulkardulasi & Mr. S. Noor mohamed** who secured **II Prize** in Techno vision Mini-2K17 Mini Project Contest held on **10.10.2017 & 11.10.2017**.
- ✚ **Mr. K.D. Vishnupriyan and Mr. P.V. Aravind Bhaskar of III EEE** has got Elite certificate in NPTEL online Certification course “**Power System Analysis**” held on October 2017.
- ✚ **Ms. M. Vigneshwari and Ms. Gowsalya of III EEE** has successfully completed the NPTEL online Certification course “**Power System Analysis**” held on October 2017.
- ✚ **Ms. R. Shalini , Ms. A. Jecintha and Ms. J. Raajesvery of III EEE** has successfully completed the NPTEL online Certification course “**Electrical Machines-I**” held on October 2017.
- ✚ **Ms. M. Shanthi and Ms. K. Iswarya Lakshmi of IV EEE** has published a research paper entitled “**Two Stage PFC Boost Doubler with Interleaved Control Scheme**” in IJIREICE, Volume 5, Issue10, October 2017.

✚ **Mr. A. Anandha Balaji & Mr. M. Pravin, Ms. M. Miruthula & Ms. K. Kala Devi of I EEE** who have shown their amazing talents and titled as **Mr.Ryla, Ms.RYLA** in Rotary Youth Leadership award training camp held on 27.10.2017 – 29.10.2017

✚ **30 students** from IV EEE got placed in **Future Generali Total Insurance Solutions** campus drive on 6th December, 2017.

✚ **7 students** from IV EEE got placed in **SS. Technovation**, Coimbatore, campus drive on 22nd December, 2017.

✚ 34 students from **II EEE** have undergone In-plant Training in reputed industries like TNEB, BSNL, Railnet, Hitech Arai, Madurai, Top light elastics and labels Tiruppur and Best Automobiles, Madurai during their winter vacation on December 2017.

✚ **Ms. M. Maheswari, Ms. R. Sakthi Priya Dharshini and Ms. T. Raja Kumari** of IV EEE have undergone internship in Railnet software solutions, Madurai during December 2017.

✚ **Ms. M. Vijaya Lakshmi** of IV EEE has undergone internship in BSNL, Telecommunications Chennai during December 2017.

✚ 95 students from **III EEE** have undergone In-plant Training in reputed industries like TNEB, BSNL, Railnet, Sakthi Transformers Chennai, Able Electronics Coimbatore and TVS, Madurai during their winter vacation on December 2017.

✚ **Mr. B. Arun, Mr. C. Nagaraj, and Mr. T. Karuppasamy** of III EEE have participated in Rajasthan **Hackathon 3.0** held at **Udaipur Mohanlal Sukhadia University, Rajasthan** on 2nd & 3rd December 2017, titled on “**Augmented Reality- Virtual reality [Mobile App for Tourism]**”.

✚ **Mr. S. Muthuprabakaran, Mr. M. Rathinapandian, Mr. J Velmurugan** of IV EEE has attended “**Capacity building for Industrial needs catalyzed-Science and Technology**” organised by Tamil Nadu state council for science and Technology , Chennai and Placement and Training Cell(PAT)

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