DEPERTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Tele Electro

NEWSLETTER

Volume 6 - Issue 4

2019-20

Contents

DHANEKULA INSTITUTE OF ENGINEERING AND TECHNOLOGY :: GANGURU

DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY::GANGURU

Institute Vision

Pioneering Professional Education through Quality.

Institute Mission

1. Quality Education through state-of-art infrastructure, laboratories and committed staff.
2. Moulding Students as proficient, competent, and socially responsible engineering personnel with ingenious intellect.
3. Involving faculty members and students in research and development works for betterment of society.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Vision

- Pioneering Electronics and Communication Engineering Education & Research to Elevate Rural Community

Mission

- Imparting professional education endowed with ethics and human values to transform students to be competent and committed electronics engineers.
- Adopting best pedagogical methods to maximize knowledge transfer.
- Having adequate mechanisms to enhance understanding of theoretical concepts through practice.
- Establishing an environment conducive for lifelong learning and entrepreneurship development.
- To train as effective innovators and deploy new technologies for service of society.

Principal's Message

Dear Parents and Students,

It is with great pleasure that I welcome you to our College (DIET) Newsletter.

As Principal I am hugely impressed by the commitment of the college and the staff in providing an excellent all-round education for our students with our state of the art facilities. We as a team working together, strongly promote the zeal towards academic achievement among our students. The cultural, sports and other successes of all our students and staff are also proudly celebrated together. I congratulate the staff and students who brought latest technologies and concepts onto the day to day teaching learning platform. As long as our ideas are expressed and thoughts kindled, we can be sure of learning, as everything begins with an idea.

I appreciate every student who shared the joy of participation in co-curricular and extracurricular activities along with their commitment to curriculum. That little extra we do, is the icing on the cake. 'Do more than belong – participate. Do more than care – help. Do more than believe – practice. Do more than be fair – be kind. Do more than forgive – forget. Do more than dream – work.'

With a long and rewarding history of achievement in education behind us, our DIET community continues to move forward together with confidence, pride and enthusiasm.

I hope you enjoy your visit to the website, and should you wish to contact us, please find details at the www.diet.ac.in

Yours in Education,

Dr. Ravi Kadiyala
Principal

HOD's Message

The Department of Electronics & Communication Engineering (ECE) has consistently maintained an exemplary academic record. The greatest asset of the department is its highly motivated and learned faculty. The available diversity of expertise of the faculty with the support of the other staff prepares the students to work in global multicultural environment. The graduates of the Electronics & Communication Stream have been selected by some of the world's leading corporations & as well as by most of the leading Indian counter parts. We hope that we will continue to deliver our best to serve the society and mankind. It is also expected that our students will continue to pass-on the skills which they have developed during their stay at this department to whole of the world for a better society.

Dr.G.L.Madhumati

Professor & HOD

Dept. of ECE

Dhanekula Institute of Engineering & Technology

Editor's Note

Dear Readers,

It gives us great pleasure to bring you the fourth issue of **Tele-Electro** for the academic year 2019-20, the Department newsletter of Dhanekula Institute of Engineering & Technology, Ganguru.

The name and fame of an institute depends on the caliber and achievements of the students and teachers. The role of a teacher is to be a facilitator in nurturing the skills and talents of students.

This Newsletter is a platform to exhibit the literary skills and innovative ideas of teachers and students. **Tele-Electro** presents the achievements of students and con-tributions of teachers.

We profusely thank the management for giving support and encouragement and a free hand in this endeavor. Last but not the least we are thankful to all the authors who have sent their articles. We truly hope that the pages that follow will make an interesting read.

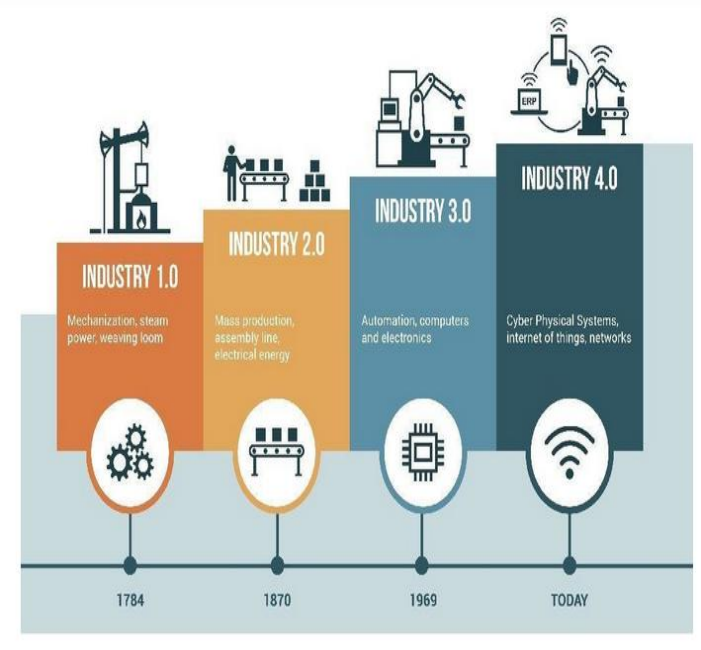
Mr. N Nagaraju
Faculty Member

G.U.Maheswara Reddy
Student Coordinator

G.Nagaraju
Student Coordinator

FACULTY ARTICLES

Industry 4.0 - the digital transformation of industry and the fourth industrial revolution



What is Industry 4.0?

Technology has played a major role in transforming the world of industry. The first era of the industry was steam and the first machine was mechanized. The second era was all about electricity, the assembly line and the birth of mass production. The third era of the industry had the advent of computers and the beginning of automation – the robots and machines began to replace human workers on those assembly lines. The next era is on board — "Industry 4.0."

Industry 4.0 is the most awaited era in the industry, in which computer and automation will come together in an entirely new way. This primarily focuses on the use of large-scale M2M and Internet of Things (IoT) deployments to provide the likes of increased automation, improved communication and monitoring, as well as smart machines that can analyse and diagnose issues without the need for human intervention. Industry 4.0 creates what has been called a smart factory, smart industry, intelligent industry, or smart manufacturing.

Why Industry 4.0?

Industry 4.0 is neither a new form of technology, nor a business ideal, but in fact a revamped approach inspired by new advancements to achieve results that weren't possible 10 years ago.

The first industrial revolution saw Britain move from farming to factory production in the 19th Century. The second spanned the period from the 1850s to World War I and began with the introduction of steel, culminating in the early electrification of factories and the first spouts of mass production. Finally, the third industrial revolution refers to the change from analogue, mechanical, and electronic technology to digital technology that took place from the late 1950s to the late 1970s.

The fourth, then, is the move towards digitization. Industry 4.0 uses the Internet of Things and cyber-physical systems such as sensors to collect vast

amounts of data that can be used by manufacturers and producers to analyze and improve their work.

Recent advancements in big data and analytics platforms means that systems can trawl through the huge sets of data and produce insights that can be acted upon quickly. Smart factories, which will be at the heart of Industry 4.0, will take on board information and communication technology for an evolution in the supply chain and production line that brings a much higher level of both automation and digitization. It means machines using self-optimization, self-configuration and even artificial intelligence to complete complex tasks in order to deliver vastly superior cost efficiencies and better quality goods or services.

Technologies of Industry 4.0

Industry 4.0 has made the smart factory reality, thanks in part to the widespread use of digital technologies in formerly manual processes. Connectivity, automation, and optimization are driving the Industry 4.0 digital transformation. But many technologies are working together to realize the full potential of the manufacturing 4.0 movement.

The technologies include

1. Industrial Internet of Things (IIoT)
2. Automation
3. Artificial Intelligence
4. Big Data & Analytics
5. The Cloud
6. Cyber security
7. Simulations

How to Get Ready For Industry 4.0 as an Engineer

The Fourth Industrial Revolution mark an era of unprecedented innovations and progressions and it is important for governments to be prepared for Industry 4.0 with productive ecosystems and an agile and robust infrastructure. Here are some steps that the engineers can do to get ready for this new digital world

1. Engineers may need to become an even more diligent and attentive workforce
2. Engineering should seize the opportunity that low production costs will bring
3. Shifts in specializations may be in order
4. Engineers will have to keep up with the rapid advancements in technology and devices
5. The boundaries of communication will be pushed further than ever before

Article by
Dr. P Pavitra Roy, Professor, ECE.

6G TECHNOLOGIES

6G (sixth-generation wireless) is the successor to 5G cellular technology -- 6G networks will be able to use higher frequencies than 5G networks and provide substantially higher capacity and much lower latency. One of the goals of the 6G Internet will be to support one micro-second latency communications, representing 1,000 times faster -- or 1/1000th the latency -- than one millisecond throughput.

The 6G technology market is expected to facilitate large improvements in the areas of imaging technology and location awareness. Working in conjunction with AI, the computational infrastructure of 6G will be able to autonomously determine the best location for computing to occur; this includes decisions about data storage, processing and sharing.

Advantages of 6G over 5G

6G is expected to support 1 terabyte per second (Tbps) speeds. This level of capacity and latency will be unprecedented and will extend the performance of 5G applications along with expanding the scope of capabilities in support of increasingly new and innovative applications across the realms of wireless cognition, sensing and imaging. 6G's higher frequencies will enable much faster sampling rates in addition to providing significantly better throughput. The combination of sub-mmWave (e.g. wavelengths smaller than one millimeter) and the use of frequency selectivity to determine relative electromagnetic absorption rates is expected to lead to potentially significant advances in wireless sensing solutions.

Additionally, whereas the addition of mobile edge computing (MEC) is a point of consideration as an addition to 5G networks, MEC will be built into all 6G networks. Edge and core computing will become much more seamlessly integrated as part of a combined communications/computation infrastructure framework by the time 6G networks are deployed. This will provide many potential advantages as 6G technology becomes operational, including improved access to artificial intelligence (AI) capabilities.

When to expect 6G

6G is expected to launch commercially in 2030. 6G is being developed in response to the increasingly distributed radio access network (RAN) and the desire to take advantage of the terahertz (THz) spectrum to increase capacity and lower latency. While some early discussions have taken place to define 6G, research and development (R&D) activities will start in earnest in 2020. Many of the problems associated with deploying millimeter wave (MM wave) radio for 5G new radio are expected to be solved in time for network designers to address the challenges of 6G.

What 6G will look like

It's expected that 6G wireless sensing solutions will selectively use different frequencies to measure absorption and adjust frequencies accordingly. This is possible because atoms and molecules emit and absorb electromagnetic radiation at characteristic frequencies and the emission and absorption frequencies are the same for any given substance.

6G will have big implications for many government and industry solutions in public safety and critical asset protection such as:

- Threat detection
- Health monitoring
- Feature and facial recognition
- Decision making (in areas like law enforcement and social credit systems)
- Air quality measurements
- Gas and toxicity sensing

Do we even need 6G?

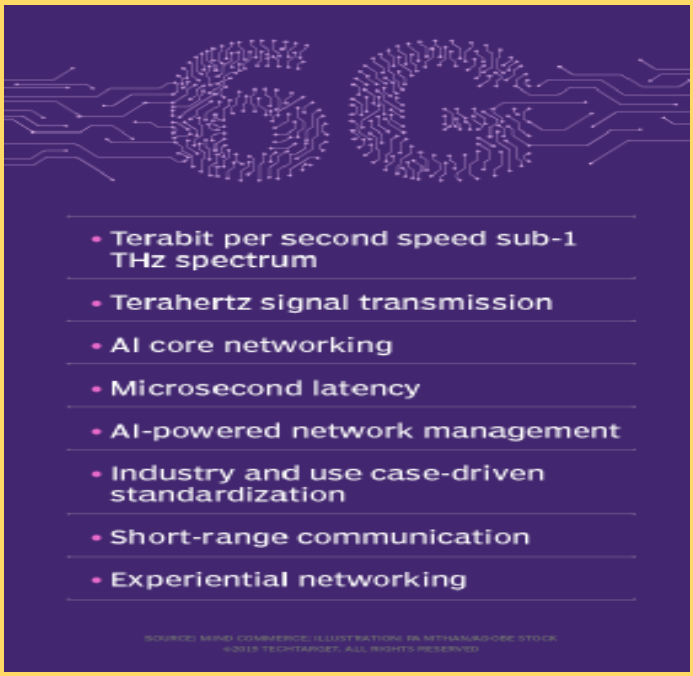
More than ever before, the sixth generation of cellular wireless communications will integrate a set of previously disparate technologies, including deep learning and big data analytics. The introduction of 5G paves the way for much of this convergence.

The need to deploy edge computing to ensure overall throughput and low latency for ultra-reliable, low latency communications solutions is an important driver for 6G, as is the need to support machine-to-machine communication in the internet of things (IoT). Furthermore, a strong relationship has been identified between future 6G solutions and high-performance computing (HPC). While some of the IoT device data will be handled by edge computing resources, much of it will require processing by more centralized HPC resources.

Who is working on it?

The race to 6G will draw the attention of many industry constituents, such as major test and measurement vendor Key sight Technologies who has also indicated a commitment to its development. This may very well make the race to reach 5G supremacy look minor compared to the wait to see which countries can dominate the 6G technology market and its related applications, services and solutions.

- The University of Oulu in Finland is committed to a 6G research initiative referred to as 6Genesis. The project will be conducted for the next eight years and will develop a vision for 2037.



- South Korea's Electronics and Telecommunications Research Institute is conducting research on Terahertz band for 6G and envisions making it 100 times faster than 4G LTE networks and 5 times faster than 5G networks.
- The Ministry of Industry and Information Technology (MIIT) in China is directly investing and monitoring the research and development process.
- The United States is planning to open up 6G frequency for R&D purposes pending approval from the Federal Communications Commission (FCC) for frequencies over 95 gigahertz (GHz) to 3 THz.

Article by
Dr. P Pavitra Roy, Professor, ECE.

STUDENT ARTICLES

Gravity Jet Suit

Richard Browning is a British inventor, entrepreneur and speaker. He founded Gravity Industries Ltd in March 2017, the company behind the Daedalus Mark 1, a jet pack that uses several miniature jet engines to achieve vertical flight. The kerosene engines are rated at 22 kg of thrust each. Browning uses his arms to control the direction and speed of the flight, whilst being shown fuel consumption among other usage data within the head-up display he wears inside the helmet. He achieved a speed of 32.02 miles per hour (51.53 km/h) with the suit during a Guinness World Records attempt for 'Fastest speed in a body controlled jet engine powered suit'.

The Jet suit is of

- Power: 1050 bhp
- Turbines:5

- RPM: 120,000
- Fuel: Jet A1 or Diesel
- Dry weight: 27kg
- Flight time: 5-10 minutes
- Current speed record: 32mph
- Altitude limit: 12,000ft.
- The Gravity Jet Suit has over 1,000 bhp and can reach altitude of 12,000 feet.

- The suit weighs 27 kg without fuel and is powered by five mini jet engines.

- Nine suits are being made available to buy and can be purchased from Selfridges, London for £340,000 ($443,000)

- There are two mini engines on each arm and one on the back allowing you to control your movement just by moving your hands. The fuel is also stored in the backpack and the suit has 1050 bhp in total. The suit took months to develop and many of the parts are 3D printed.

- The estimated Net Worth of Scot Richard Browning is at least $7.09 Million dollars as of 20 December 2018.

- The Martin Jetpack will cost anywhere between $150,000 and $250,000, excluding the cost of premium gas as well as any costs associated with getting a sports license in the U.S., and purchasing the necessary flying equipment.

Working:

A g-suit is an anti-gravity garment worn by fighter pilots. When they are pulling positive G's, the suit inflates and prevents blood from pooling in their feet and legs which would cause them to lose consciousness. NASA astronauts also wear g-suits when they experience Orthostatic Intolerance (OI).

Made off:

The suit weighs on average 6.5 kilograms (14 lb) in total, and its fabric is made out of a special mix of Twaron and Nomex. The counter pressure effect occurs instantaneously without any time delay versus an up to two second delay before reaching full system protection in standard pneumatic, inflatable g-suits.

Article by
G.Rishitha, 188T1A0415, 2nd ECE.

SOPHIA: HUMANO ANDRIOD ROBO

Sophia is a robot with the image of a middle-aged woman, who is actually only two and a half years old. Sophia is a robot with an attractive female face, built so far only to its waist. Her eyes are cameras with the ability to recognize faces she has seen before. Her skin is made of a special variety of silicone, which is flexible enough to perform 62 facial expressions she has an electronic synthetic voice system that allows her to speak and gesticulate as she makes her speech.

It is a humanoid machine developed in Hong Kong by the American company Hanson Robotics, and activated from April 19, 2015. The British actress Audrey Hepburn has served as a model to design the face of Sophia, who still lacks lower extremities, which are in the process of being built. The making of Sophia is described and commented, a new humanoid robot that stands out for having been built with the latest advances in Artificial Intelligence (AI) that allow it, for example, to learn and gain experience from its interaction with human beings. Also, its appearance and wide repertoire of facial gestures that it has, significantly brings it closer to the human pattern. The great advances that are currently being achieved in the field of Artificial Intelligence (AI), are really surprising. The fact that a machine manages to learn from experience, accumulates knowledge, and finally makes intelligent decisions according to the circumstances, already speaks of a rudimentary consciousness, or at least of an incipient ability to make judgments and act accordingly.

Its presence has gained notoriety for her presentations in at least a couple of United Nations events and also for having received Saudi citizenship, being the first robot in the world to hold that status. Sophia's particular technological qualities have begun to generate repercussions of various kinds, not only in the academic scientific world, but also ethically, artistically, religiously, morally, politically and economically. From the above, it can be affirmed that Sophia has marked the beginning of a new era, not only robotic but also technological in general, which now allows to see with greater certainty the real emergence of a successor of the human species.

Article by
M.Shiv Sharadh, 178T1A0463, 3rd ECE.

Placements in ECE Department

List of Selected students in Department of Electronics & Communication Engineering

A. Name of Company: TCS

Date of Drive: 08-08-2019

Package: 3.37 LPA

Number of candidates selected: 6

S.No	Roll Number	Name of the Student
1.	168T1A04A7	V Pravallika Devi
2.	168T1A04B7	V N V Sai Anurag
3.	168T1A04C0	Y Sai Sreeja
4.	168T1A0435	G Chaitanya Kumar
5.	178T5A0403	B Anirudh

6.	168T1A0497	S Vamsi

B. Name of Company:

SHELL Pro Technologies

Date of Drive: 22-11-2019

Package: 1.4-2.2 LPA

Number of candidates selected: 25

S.No	Roll Number	Name of the Student
1.	168T1A04A0	SK Nagurafil
2.	168T1A04A1	S Lohitha
3.	168T1A04A5	U Vanaja
4.	168T1A04A9	V Avinash Reddy
5.	168T1A04B1	V Naga prathyusha
6.	168T1A04B6	N Mahith Kumar
7.	168T1A0401	A Eswar
8.	168T1A0403	A V Gopi Hari Krishna
9.	168T1A0408	B Sai Sivakumar
10.	168T1A0415	B Naga Mahesh
11.	168T1A0418	Ch Sindhupriya
12.	168T1A0426	G Mounika
13.	168T1A0427	G Venkata Sai Reddy
14.	168T1A0430	G Siva Sankar
15.	168T1A0435	G Chaitanya Kumar
16.	168T1A0441	K Venkata Sai Kumar
17.	168T1A0444	K Rajesh Khanna
18.	168T1A0449	K Dileep Kumar
19.	168T1A0460	K Goutam Kumar
20.	168T1A0462	K Mani
21.	168T1A0488	P Naga Babu
22.	168T1A0493	S Chandana
23.	178T5A0413	P Balaram
24.	168T1A0478	N Durga Prasad
25.	168T1A0492	R Harish Pawan

C. Name of Company: HCL Collabera

Date of Drive: 29-11-2019

Package: 2.22 LPA

Number of candidates selected: 11

S.No	Roll Number	Name of the Student
1.	168T1A04A6	U Hanisha
2.	168T1A04B1	V Naga Prathyusha
3.	168T1A0405	A Shireen
4.	168T1A0448	K Lalitha Devi
5.	168T1A0459	Kousalya Andy
6.	168T1A0465	M Swathi
7.	168T1A0466	M K Sri Priyanka
8.	168T1A0468	M Uhanjali
9.	168T1A0474	Md Nadeem
10.	168T1A0475	M J Sai Lakshmi
11.	168T1A0498	Shaheda Sultana

D. Name of Company: SNOVASYS

Date of Drive: 23-11-2019

Package: 3.0 LPA

Number of candidates selected: 1

S.No	Roll Number	Name of the Student
1.	168T1A0418	Ch Sindhupriya

Semester Results Toppers

IV-I ECE Results

S.No	SGPA	Roll Number	Name of the Student
1.	8.77	168T1A04A7	V Pravallika Devi
2.	8.55	168T1A0458	K Sujitha
3.	8.50	168T1A0404	A Srividya

III-I ECE Results

S.No	SGPA	Roll Number	Name of the Student
1.	8.71	178T1A0411	B Likitha
2.	8.71	178T1A0495	S Ramyasri
3.	8.62	178T1A0459	K S V R G Prasanna
4.	8.43	178T1A0449	K Namratha
5.	8.43	178T1A0457	K Lavanya
6.	8.43	178T1A0483	P Madhavi

II-I ECE Results

S.No	SGPA	Roll Number	Name of the Student
1.	8.82	188T1A0474	G Bhavana
2.	8.64	188T1A0456	Y N L M Priya
3.	8.64	198T5A0408	M Swetha
4.	8.50	188T1A0445	P L Manjusha
5.	8.50	188T1A0462	A S Mounika
6.	8.50	188T1A0489	K Ajay

FDPs Organized

The Department of Electronics and Communication Engineering had organized a two day Faculty Development Program (FDP) on ASIC and FPGA Design using Mentor Graphics EDA Tools by Siddartha B D Application Engineer-ISG on 23rd and 24th December 2019.

Seminars Conducted

The Department of Electronics and Communication Engineering had conducted a Seminar on Nano Satellite Design named as “CUBESAT” by Dr.Praveen Naidu, Associate Professor from V R Siddhartha Engineering College, Vijayawada on 27th January 2020. He is also founder, director and CEO of NPHSAT Systems Pvt.Ltd, Vijayawada.

Industrial tour

As a part of fulfilling the gaps identified in the Analog communications course, the industrial visit is planned for III ECE A&B Section students. The Industrial Visit is conducted on 28th & 29th January 2020 to the Doordarshan Kendra, Vijayawada. The III Year II Semester Subject handling faculty has accompanied the students for two days for supporting the students during the industrial visit.

The following topics were covered

1. Mechanism of broadcasting Video and Audio signals.
2. Studio
3. Production Control Room
4. Transmission and Playback Server Room
5. Power Supply and UPS Room

List of Faculty participated in FDP's /Workshops/Seminars/ Short term

Sl. No	Name of the Faculty	Institution	Topic
1	Dr. P Pavitra Roy	VRSEC	Smart Society Using IoT
2	Mr. P.Krishna Reddy	DIET (Remote IIT Bombay)	Solar Study Lamp Assembly

3	Mr.P.Veera Swamy	VRSEC	Smart Society Using IoT
4	Mr.P.Veera Swamy	MIC	Advanced Technologies on WSN
5	Mr.A.Sivannarayana	VVIT	Mixed Signal Design

List of Faculty Publications: Journals

Sl. No	Title of Paper	Name of the Author/s	Name of the Journal	Year of Publication/ ISBN/ISSN Number
2	Effective N/W Interface Architecture for Fault Tolerant Mechanism of NOC	Mrs. K.Radha	International Journal of Innovative Technology and Exploring Engineering (IJITEE)	ISSN:2278-3075 (online)

List of Faculty Publications: Conferences

Sl. No	Title of Paper	Name of the Author/s	Name of the Conference
1	Spectrum sensing in cognitive radio networks using particle swarm optimization algorithm		
2	Enhanced probabilistic based hybrid neural network for spectrum sensing in cognitive radio network	Dr. P Pavitra Roy	ICGPTPG-2019 under TEQIP-1.3
3	Robust spectrum sensing in cognitive radio using neural networks	Dr. P Pavitra Roy	ICGPTPG-2019 under TEQIP-1.3
4	Gravitational search algorithm based PNN for spectrum sensing in cognitive radio networks	Dr. P Pavitra Roy	ICGPTPG-2019 under TEQIP-1.3

Faculty Achievements

1. Mr.Parisae Veera Swamy faculty member of ECE Department has achieved Professional Membership from Institute For Engineering Research and Publication (IFERP).


IFERP

INSTITUTE FOR ENGINEERING RESEARCH AND PUBLICATION

Certificate of Membership

This is to certify that

PARISAE VEERA SWAMY

is an active Professional member of the

Institute For Engineering Research And Publication

from 01/14/2020 To 12/31/2020

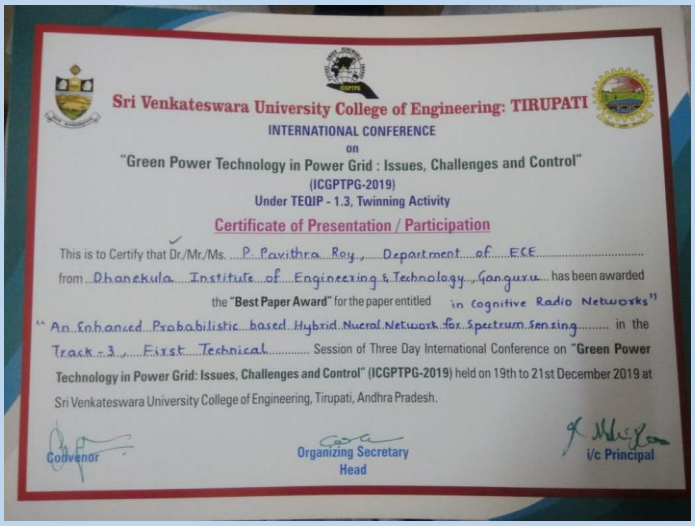
And as such enjoys the benefits and privileges thereof.

Membership ID No : PMIN97806342
Nationality : India
Date of Issue : 01/14/2020

Rudra Bhanu Satpathy
Director, IFERP

A Tribute by Technoarete Group

2. Dr. P Pavitra Roy Professor of ECE Department has received **Best Paper Award** for "Enhanced Probabilistic Based Hybrid Neural Network for Spectrum Sensing in Cognitive Radio Network", in International Conference on Green Power Technology in Power Grid Issues, Challenges and Control (ICGPTPG-2019) held on 19th to 21st December 2019 at Sri Venkateswara University College of Engineering, Tirupati, Andhra Pradesh.


Sri Venkateswara University College of Engineering: TIRUPATI

INTERNATIONAL CONFERENCE

on

"Green Power Technology in Power Grid : Issues, Challenges and Control"

(ICGPTPG-2019)

Under TEQIP - 1.3, Twinning Activity

Certificate of Presentation / Participation

This is to Certify that Dr./Mr./Ms. P. Pavithra Roy, Department of ECE from Dhanekula Institute of Engineering & Technology, Ganguru has been awarded the "Best Paper Award" for the paper entitled "An Enhanced Probabilistic based Hybrid Neural Network for Spectrum Sensing in Cognitive Radio Networks" in the Track - 3, First Technical Session of Three Day International Conference on "Green Power Technology in Power Grid: Issues, Challenges and Control" (ICGPTPG-2019) held on 19th to 21st December 2019 at Sri Venkateswara University College of Engineering, Tirupati, Andhra Pradesh.

Convenor

Organizing Secretary
Head

i/c Principal

Dhanush-2K19

Technical Fest plays an important role in the college curriculum. It is one such event where young brains get to showcase their skills and compete with others to find the best. It is not just about the competitions but also an event where a lot of those new ideas are seen live and learn more and be inspired. Such inspiring events that happen every year in the college will guide engineers to dream bigger and make those dreams come true.

Dhanush 2K19 has conducted on 20th and 21st of December 2019. The department of ECE has conducted Paper Presentation, Technical Quiz, Tech Trix, Theme Ballet (Poster Presentation), Tech Pic, Circuit Maker, Racing Fever and e-Quest along with the college level events. The technical fest gives the opportunity to students to exhibit their academic and co-circular talents.

DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY
GANGURU: VIJAYAWADA – 521 139

Dhanush-2K19

Event Name	**Paper Presentation**
Venue	**ECE Seminar Hall**
Date	**20-12-19**
Time of conduct	**11:00AM – 4:00PM**
Participation from number of colleges	**07**
Total Number of participants	**54**
Name of Winners	**Ch.Naga Nandini (V.R. Siddhartha Engineering College)**
	B.Ramya Sree(V.R. Siddhartha Engineering College)
	Y.Bharath(V.R. Siddhartha Engineering College)
Name of Runners	**Y.Lakshmi Priya (DIET)**

Papers from different area are presented like VLSI Design, Artificial Hand using Embedded Systems, Nanotechnology, Robotics, Next generation Wireless Communication -Free Space Optics(FSO), Satellite communication, GPS and Network Security, Face Recognition using Neural networks, Sixth Sense technology and Artificial Intelligence.

Chief Guest of the event: Dr. Chella Santhosh from KL Deemed to be University

Winner Paper title is "Virtual Tele Presence Robot"

Runner Paper title is "Artificial Intelligence"

ECE HOD Honouring the Chief Guest

Students Presenting their Paper

Students Presenting their Paper

Chief Guest Evaluating the Papers

DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY
GANGURU: VIJAYAWADA – 521 139

Dhanush-2K19

Event Name	**Technical Quiz**
Venue	**Room No: S40 & ECE Seminar Hall**
Date	**21-12-2019**
Time of conduct	**9:30AM to 1:00PM**
Participation from number of colleges	**4 (DIET, PVPSIT, PSCMRCET, LIMT)**
Total Number of participants	**23**
Name of Winners	**N. Durga Prasad (DIET, 4th ECE-B)**
	P. Bhargav (DIET, 4th ECE-B)
Name of Runners	**R. Harish Pavan (DIET, 4th ECE-B)**
	P. Bhuvanesh (DIET, 4th ECE-B)

Technical Quiz has conducted in three rounds with relevant cut off in each round. Students from various colleges has participated actively, participation certificates given to every participant. Winners and Runners were awarded with Certificates and Mementos.

Round-1 (Written Test)

DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY
GANGURU: VIJAYAWADA – 521 139

Dhanush-2K19

Event Name	**Tech Trix**
Venue	**Communication Engineering Lab**
Date	**20-12-2019**
Time of conduct	**11:00AM To 4:00PM**
Participation from number of colleges	**04**
Total Number of participants	**19**
Name of winners	**MA SHAHINA**
	ALIET(Vijayawada)
Name of Runners	**P KULADEEPAK**
	M YASWANTH
	NRI(Aagiripalli)

Tech Trix was held on the 20th of December, 2019 where students show cased working models which can be used for learning various electronics concepts. The objective was not only to inculcate techniques and research-mindedness but also creating teaching aids. Students had made working models to present their topics. a total of 9 projects were exhibited.

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Dhanush-2K19

Event Name	**THEME BALLET**
Venue	**F-40**
Date	**20.12.2019**
Time of conduct	**11:00AM – 3:00 PM**
Participation from number of colleges	**2**
Total Number of participants	**22**
Name of Winners	**P. LAKSHMI MANJUSHA**
	DIET, GANGURU
Name of Runners	**V.NAVYA**
	M.ARCHISHMA
	VIKAS COLLEGE OF ENGG & TECH, NUNNA

This event is present the poster and the students will be able to answer questions on poster presentation. Each student should describe and discuss his or her exhibit, tailored specifically to make the work understandable to a non-expert audience.

Participant explaining about her Poster

Participant explaining about her Poster

Participants Collecting their Certificates

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Dhanush-2K19

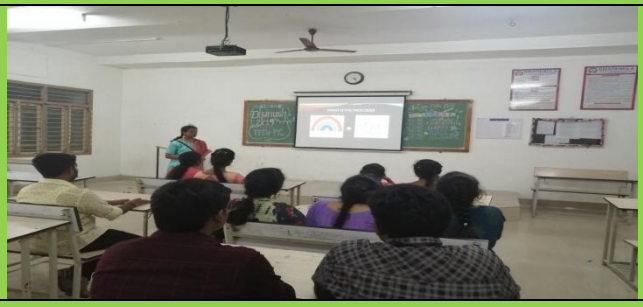
Event Name	**TECHPIC**
Venue	**F-41**
Date	**20/12/2019**
Time of conduct	**3:00 pm - 4:30 pm**
Participation from number of colleges	**3**
Total Number of participants	**24**
Name of Winners	**P.N.V.Satyanarayana Raju**
	N.Duraga Prasad
Name of Runners	**K.Yamini**
	Ajay Raja Ganesh
	B.Sireesha

There are maximum of 3 Participants for each team.
Round - 01: i) Each Team will get 10 Questions. Time limit is 1 minute.
ii)Participants from the teams need to identify the name of the Electronic Components/Electronic Devices/Electronic Equipment shown in the picture.
Round - 02: i) Selected Teams from Round - 01 have to frame the suitable Relation by looking at the two related
ii)Pictures shown. Time limit is 120 seconds per Question.

Banner

Round-1

Round-1



Round-2

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Dhanush-2K19

Event Name	**Circuit Maker**
Venue	**VLSI Lab**
Date	**21.12.2019**
Time of conduct	**12:20 PM to 01:30PM**
Participation from number of colleges	**02**
Total Number of participants	**06**
Name of Winners	**B PRAVALLIKA** **DIET-GANGURU**
Name of Runners	**G SRUTHI** **DIET-GANGURU**

Total 3 Rounds.

Round I: Odd one out (Pick odd one & give odd one description)

Round II: Find it out (Place right component in missing part of the ckt)

Round III: Circuit Simulation.(Connect the given circuit in Multisim and simulate it)

Participants Making Circuit

Participants Making Circuit

Participants with Judges

Participants with Certificates

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Dhanush-2K19

Event Name	**e-QUEST**
Venue	**F-35**
Date	**21.12.2019**
Time of conduct	**12:00 – 1:30 PM**
Participation from number of colleges	**2**
Total Number of participants	**60**
Name of Winners	**P. LAKSHMI MANJUSHA**
	FAZILA AFREEN
	M. KAVITHA
Name of Runners	**P. N. V. SATYANARAYANA RAJU**

This event is to find the electronic components which were placed in a particular place in the ECE department premises.

This event was organized in three levels.

In the first round, 12 clues found out by students out of total 24 clues.

In the second round, based on the first round clues only 6 clues found out, out of 12.

In the third round, based on the second round clues, 2 clues were found out by students as Winner and Runner out of 6 batches.

Total Participants and Coordinators

Total Participants and Coordinators

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Dhanush-2K19

Event Name	**Racing Fever**
Venue	**In front of Canteen**
Date	**21/12/2019**
Time of conduct	**10:30 AM to 3:00 PM**
Participation from number of colleges	**5**
Total Number of participants	**51**
Name of Winners	**P.N.V.Satyanarayana Raju**
	Dhanekula Institute of Engineering & Technology
	Phone Number : 8463994961
Name of Runners	**B.Devendra**
	Dhanekula Institute of Engineering & Technology
	Phone Number : 9642221370

A two day technical fest of DHANUSH2K19 is held on 20th and 21st of December 2019. Our ECE department organizes eight events. Out of those eight events Racing fever is one of the interesting event for the students participation, there is a need to move a vehicle without touching bricks and threads in between bricks beside the track, and time duration taken by the vehicle to reach the destination point should be very low.

Instructions given by Volunteers

Faculty, volunteers and participants

Students Participation in event

Principal sir visit the event

NSS EVENTS

DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY
GANGURU: VIJAYAWADA – 521 139

NSS CELL:: EVENT REPORT

Date	**02-01-2020**
Event Names	PLASTIC AWARENESS & SOIL CONSERVATION
Venue	**Madduru Village**
In Association with	**JNTU, Kakinada**

As a part of NSS SPECIAL CAMP, DHANEKULA NSS UNIT has organized a Door-to-Door campaign on "PLASTIC AWARENESS" and "SOIL CONSERVATION in Madduru Village. Around 50 Volunteers have participated in this awareness campaign.

Volunteers have educated the people in the village about the harmful effects of plastic on Health, Environment, and Wildlife and urged them to avoid single use plastic. They have also asked the people to use Jute or Cloth bags in place of plastic.

On the same day, Volunteers also explained about the importance of soil fertility and enlightened the farmers of the village about the different ways of improving it. Also the harmful effects of chemical pesticides and insecticides on soil and health are explained in detail by the volunteers to the farmers.

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NSS CELL:: EVENT REPORT

Date	**03-01-2020**
Event Name	**HEALTH AND FAMILY WELFARE & AIDS AWARENESS**
Venue	**Madduru Village**
In Association with	**JNTU, Kakinada**

As a part of NSS SPECIAL CAMP, DHANEKULA NSS UNIT has organized a Door-to-Door campaign on "HEALTH & FAMILY WELFARE" and "AIDS AWARENESS in Madduru Village. Around 50 Volunteers have participated in this awareness campaign.

Volunteers have educated the people about the benefits of taking healthy diet, exercising and keeping premises clean. They also conveyed that only with clean surroundings we can avoid large number of diseases. The volunteers have also mentioned about various causes of common diseases and how to treat them with household remedies.

On the same day, volunteers have also tried to bring awareness among the villagers about AIDS disease and explained about the precautions that everyone must take.

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NSS CELL:: EVENT REPORT

Date	**04-01-2020**
Event Name	**POPULATION EDUCATION & WOMEN'S RIGHTS**
Venue	**Madduru Village**
In Association with	**JNTU, Kakinada**

As a part of NSS SPECIAL CAMP, DHANEKULA NSS UNIT has organized a Door-to-Door campaign on "POPULATION EDUCATION" and "WOMEN'S RIGHTS" in Madduru Village. Around 50 Volunteers have participated in this awareness campaign.

Volunteers enlightened the people of the village about the current population situation of the country and how it is affecting the progress of the nation and thereby individual. The limited resources of earth and their exploitation by these masses have also been told and conveyed the seriousness of controlling population.

On the same day, volunteers have also taken part in educating the women in the village about the basic fundamental constitutional rights of women and how they can utilise them. The rights regarding women safety were focused by the volunteers since that is the major issue right now in the current society in the form of eve teasing, domestic violence etc.

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NSS CELL:: EVENT REPORT

Date	**05-01-2020**
Event Name	**LITERACY AWARENESS**
Venue	**Madduru Village**
In Association with	**JNTU, Kakinada**

As a part of NSS SPECIAL CAMP, DHANEKULA NSS UNIT has organized a Door-to-Door campaign on "LITERACY AWARENESS" in Madduru Village. Around 50 Volunteers have participated in this awareness campaign.

The volunteers have urged the people of the village about the importance of ability to Read and Write. The different ways in which fraudsters cheat illiterates and how misinformation / fake news from others can be avoided were explained.

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NSS CELL:: EVENT REPORT

Date	**06-01-2020**
Event Name	**SCHOOL DROPOUTS**
Venue	**Madduru Village**
In Association with	**JNTU, Kakinada**

As a part of NSS SPECIAL CAMP, DHANEKULA NSS UNIT has organized a seminar on "SCHOOL DROPOUTS" in Z.P. High School in Madduru Village. Around 50 Volunteers have participated in program.

Volunteers have demonstrated the students of the school about the importance of education in the current era and its significance. The different career prospects with their responsibilities and advantages were thoroughly explained to the young minds, which encouraged the students to understand the benefits of education. Volunteers have also interacted with the students individually and gave them valuable suggestions and advice related to education.

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NSS CELL:: EVENT REPORT

Date	**07-01-2020**
Event Name	**TREE PLANTATION & NON CONVENTIONAL ENERGY**
Venue	**Madduru Village**
In Association with	**JNTU, Kakinada**

As a part of NSS SPECIAL CAMP, DHANEKULA NSS UNIT has organized "TREE PLANTATION" and awareness program on "USE OF NON CONVENTIONAL ENERGY" in Madduru Village. Around 50 Volunteers have participated in this campaign.

The villagers were explained about the different health and environmental issues of using non conventional energy sources wood, coal, kerosene and petrol. The villagers are also urged not to burn their crop leftovers. The different benefits of alternate clean energy sources like solar and wind were explained by the volunteers to the people of the village.

On the same day, the volunteers have distributed and planted various trees throughout the village signifying the importance of trees for our health and environment.

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NSS CELL:: EVENT REPORT

Date	**10-01-2020**
Event Name	**MEDICAL CAMP**
Venue	**Madduru Village**
In Association with	**JNTU, Kakinada**

As a part of NSS SPECIAL CAMP, DHANEKULA NSS UNIT has organized a “FREE MEDICAL CAMP” in collaboration with doctors from Dr. Pinnamaneni Siddhartha Medical College in Madduru Village. Around 50 Volunteers have participated in this camp.

A total of 108 villagers have benefited by the medical camp where they received free consultation for various diseases like heart, lungs, knee, sugar, blood pressure and eyes etc. Volunteers played a major role in spreading the news of free medical camp throughout the village and also guided and helped the aged during consultation. Volunteers solely have taken the responsibility and succeeded in conducting the camp smoothly. The doctors were later honoured for their self-less service with mementos.

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NSS CELL:: EVENT REPORT

Date	**24-01-2020**
Event Name	**NATIONAL GIRL CHILD DAY CELEBRATIONS**
Venue	**ECE Seminar Hall**

On the eve of National Girl Child Day with the theme of "Beti Bachao Beti Padhao" on 24th JAN 2020, College NSS unit honoured 16 girl volunteers with certificates who have participated actively in various NSS events to bring a positive change in the society including creating awareness in adopted villages about girl child education in the special camp organized from 03-01-2020 to 10-01-2020. The session was conducted at ECE Seminar Hall and was presided by Dr. Ravi Kadiyala, principal of the institution.

About 100 Student volunteers with NSS Program officer and staff coordinators have participated in this and made the session fruitful. Students talked about the achievements and the capabilities of girls in current society citing various examples, and also discussed how girls play a crucial role in shaping the society.

Principal Dr. Ravi Kadiyala addressing the Volunteers

Volunteer expressing her views


Volunteer expressing her views


Certificate Distribution

DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY
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NSS CELL:: EVENT REPORT

Date	**26-01-2020**
Event Name	**REPUBLIC DAY CELEBRATIONS**
Venue	**JNTU, Kakinada**

On the occasion of 71st Republic Day celebrations held at JNTU Kakinada on 26th January 2020, about 10 volunteers from the college NSS unit took part in the celebrations. The volunteers have participated in the Republic Day parade along with other institutions and received participation certificates.

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NSS CELL:: EVENT REPORT

Date	**28-01-2020**
Event Name	**DRUG DE-ADDICTION**
Venue	**LBRCE, Mylavaram**

The National Institute of Social Defence Ministry of Social Justice and Empowerment, Government of India have sponsored a One Day conference on "Drug De-Addiction" in LBRCE College, Mylavaram. Two volunteers of Dhanekula NSS Unit have attended the conference and gained immense knowledge about the harmful effects of Drugs and the different ways in which the addicted can be treated. The volunteers have expressed that the conference was the need of an hour due to the increase in use of drugs by the youth in the country. They thanked the Ministry in sponsoring such conferences and urged them to put on more related programs in the future.

DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY

GANGURU, VIJAYAWADA – 521139

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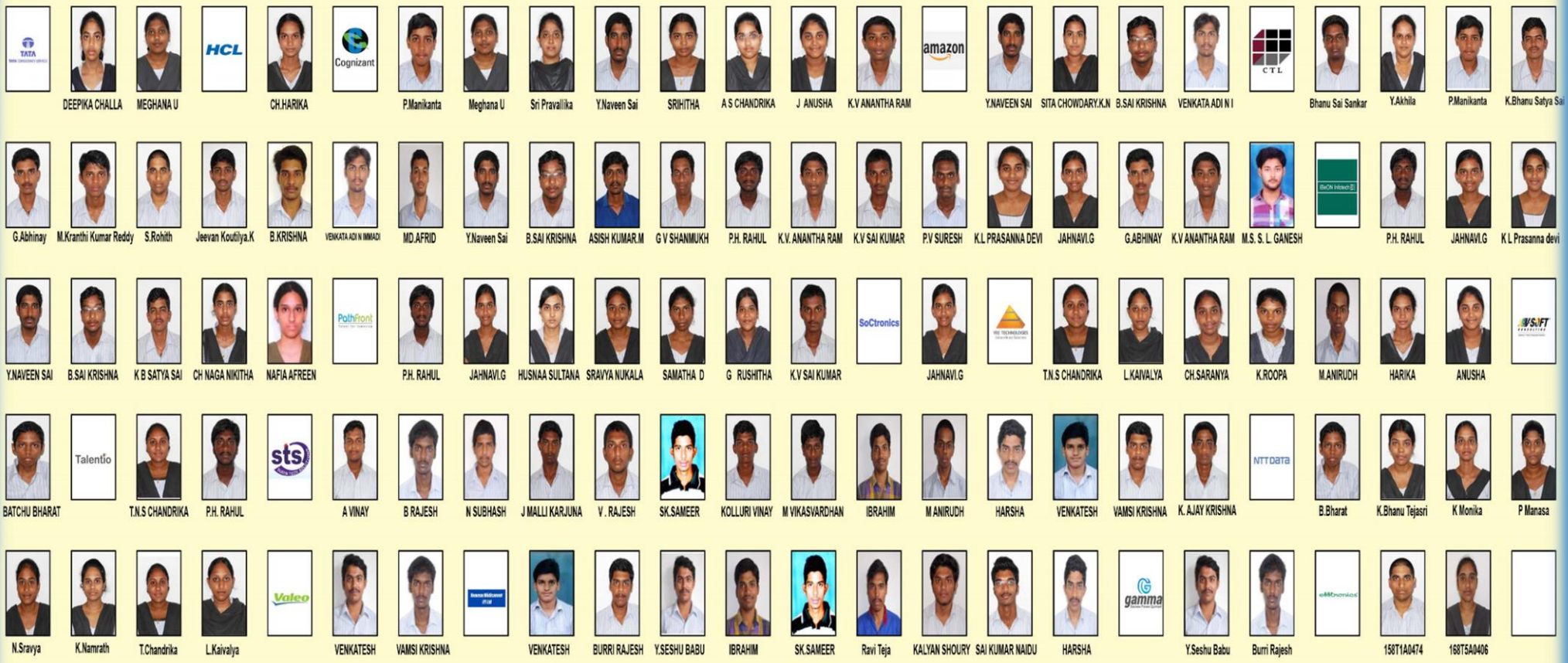
DEPARTMENT OF ECE

TRAINING, PLACEMENT & CAREER GUIDANCE CELL

WORDS REALLY FAIL TO EXPRESS OUR JOY AT THE NEWS OF YOUR SELECTION FOR THE REPUTED ORGANISATIONS RANGING FROM NATIONAL REPUTATION AND INTERNATIONAL RECOGNITION. YOUR SELECTION WAS HOWEVER, NO SURPRISE BECAUSE YOUNG AND TALENTED TECHNOCRATS OF YOUR CALIBER AND SUPERIOR INTELLIGENCE WERE BOUND TO FARE EXCELLENTLY.



DHANEKULA INSTITUTE OF ENGINEERING & TECHNOLOGY

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