



Department of Electronics & Communication Engineering

GOVERNMENT POLYTECHNIC FOR GIRLS, SURAT

SEP 2024 Vol.-02

EC TRENDS

E-Newsletter



Vision:

Be an excellent department for girls to empower them in the field of Electronics and Communication engineering to excel in industry and serve society.

Mission:

- To prepare professionally competent students and staff through academic excellence.
- To create a conducive environment in the department for exchange of ideas and knowledge.
- To provide opportunities in the department for skill development and innovation.
- To provide resources and infrastructure for best learning experience in the department.

Mrs. KUNDAN. N. VAGHELA



Hello students!

We are thrilled to announce the publication of our EC department E-Newsletter!

The Electronics and Communication Engineering (ECE) Department has a very robust foundation built on excellence in education that always inspires future technology leaders. We have an impressive growth both at departmental and institutional level. The kind of world we live in need to dwell upon these expressions in speech or through written material. The intention to provide platform for these expressions for students of the college is very natural need. E-Newsletter launched at website of the institute is right approach and is important milestone in this direction. I extend my heartfelt greetings to all staff & students associated in this endeavour. I also appeal to all that with these upcoming new dimensions of E-World, one shall adjust oneself with exhaustive reading on internet to encourage learning by oneself. I also express the deep desire that the wonderful, beautiful & creative expressions of some individuals shall promote better human values, culture & affection among all. The department is committed to creating socially committed graduates who are equipped to make a positive impact in the world. Your contributions have been the heartbeat of our e-newsletter, and we look forward to more in the future!

The journey doesn't stop here. We are committed to bringing you more exciting news, achievements, and engaging content in the upcoming volumes.

Thank you, for your continued support, readership, and engagement. We invite you to share your thoughts, feedback, and suggestions as we embark on the next phase of our e-newsletter journey.

Thank You.

Nidhi Agarwal have published a document in electronics4u on “**Cybersecurity Risks Found In EV Fast-Charging Systems**” @ 25 July 2024. Here we have taken this document so that all can be aware of latest trends in electronics/technology.

CYBERSECURITY RISKS FOUND IN EV FAST-CHARGING SYSTEMS

By Nidhi Agarwal

Discovering cybersecurity risks in EV fast-charging systems allows hackers to access network keys and data. Future work aims to enhance security measures. Engineers at Southwest Research Institute have identified cybersecurity vulnerabilities in electric vehicles (EVs) using direct current fast-charging systems, the fastest common charging method. This high-voltage technology uses power line communication (PLC) to transmit smart-grid data between vehicles and charging equipment. In a laboratory, the SwRI team exploited vulnerabilities in the PLC layer, gaining access to network keys and digital addresses on the charger and the vehicle.

In the latest project, SwRI explored vehicle-to-grid (V2G) charging technologies, following ISO 15118 specifications for communication between EVs and electric vehicle supply equipment (EVSE) to support electric power transfer.

The team have developed an adversary-in-the-middle (AitM) device with specialized software and a modified combined charging system interface. This AitM device enabled testers to eavesdrop on communication between EVs and EVSE for data collection, analysis, and potential attack. By identifying the media access control addresses of the EV and EVSE, the team discovered the network membership key that allows devices to join the network and monitor traffic.

The researchers noted that adding encryption to the network membership key would be an important first step in securing the V2G charging process. They explained that with network access granted by unsecured direct access keys, the nonvolatile memory regions on PLC-enabled devices could be easily retrieved and reprogrammed. This vulnerability opens the door to destructive attacks, such as firmware corruption.

However, encrypting embedded systems on vehicles presents several challenges. Added layers of encryption and authentication could potentially become safety hazards. If authentication or decryption fails, it could disrupt a vehicle’s functionality or performance.

SwRI has developed a zero-trust architecture to address these challenges by connecting several embedded systems through a single cybersecurity protocol. Future EV cybersecurity research at SwRI will test zero-trust systems for PLC and other network layers.

Reference: <https://www.electronicsforu.com/news/cybersecurity-risks-found-in-ev-fast-charging-systems>

EVENTS

A wide and diversified range of extracurricular activities exists on GGP, SURAT campuses. Students become involved in extracurricular activities not only for entertainment, social, and enjoyment purposes, but most important, to gain and improve skills and offer many social opportunities while also promoting service.

EC/ICT Department

12.08.2024 to 18.08.2024 antiragging week

Orientation program for awareness about what is ragging, to all students of the department is organized @GPG SURAT August 2024.



Induction Program Activities @GPG SURAT Dt.: 22/07/2024 to 02/08/2024



Alumini Activities

Smanvay Alumini meet held by GGP, SURAT at Shivgauri Hall Vanita Visharam Campus, Athwa Gate , Surat Dt.: 29.06.2024.



Gymkhana Activities

The Annual Day Celebration “GOONJ” was held by GGP, SURAT at sanjeev kumar Auditorium, surat on 16th April 2024. The event was a grand success, showcasing the talents and achievements of our students and fostering a sense of community and pride among the participants.

The cultural performances were a highlight of the event, with students showcasing their talents in dance, music, drama, and various other art forms. The performances were not only entertaining but also reflected the diverse cultural heritage of our college. The participants had put in months of practice, and their dedication was evident in the seamless and captivating presentations. The event not only showcased the talents of our students but also strengthened the sense of unity and pride within the college community.

The Annual Day Celebration provided an opportunity to acknowledge and appreciate the academic achievements of our students. Medal were distributed to students who excelled in various GTU Exam.



Awareness talk about "Three New Criminal Laws" @GPG SURAT Dt.: 01/07/2024

This seminar focused on educating students about three important criminal laws and their relevance in today's society. The session encouraged students to understand their legal rights and responsibilities, contributing to a well-rounded education. It was attended by around 70 students who gained valuable insights into the legal system.

Anti-terrorism day pledge @GPG SURAT Dt.: 21. 05. 2024

In observance of Anti-Terrorism Day, a pledge-taking ceremony was held to raise awareness about the importance of peace, unity, and the role of individuals in combating terrorism. Approximately 80 students participated in this solemn event, where they took an oath to uphold national integrity and work towards a peaceful society.



NCC/NSS Activities

NCC AWARENESS at GPG SURAT Dt.: 06/08/2024

We have organised an event called "NCC Orientation" for 2024 admitted students of all the departments on 6 August, 2024. NCC cadets had given basic introduction about NCC, importance of NCC in personal growth to all. So that interested students can join the NCC. They provided brief to each class and laboratory during laboratory hours. Physical verification and interview will be done afterwards.



25.04.2024 free EYE CHECKUP CAMP after
2:30 P.M. @ Ground Floor, Girls Hostel,
GPG Surat.



02.05.2024 free EYE CHECKUP CAMP after 2:30 P.M. @ Ground Floor, Girls Hostel, GPG Surat.



Independence Day Celebration Dt.: 15/08/2024

The **Independence Day of India**, which is celebrated religiously throughout the Country on the 15th of August every year. The event saw the active participation of various segments of the college community, with NCC cadets, ex-cadets, and staff members coming together to commemorate the occasion. The collective participation of NCC cadets, ex-cadets, and staff members fostered a strong sense of community and patriotism, reinforcing the ideals that Independence Day stands for.

The flag hoisting took place at 9:30 am followed by the singing of the national anthem at GPG Surat. Mr.J.M.Joshi , Principal of GGP Surat, addressed in his speech that how India got independence;

Take a look at the images of the Independence Day Celebrations:



STUDENT'S ACHIEVEMENTS

GOVERNMENT POLYTECHNIC FOR GIRLS, SURAT

Information & Communication Technology Department

Wishing all of you a heartfelt congratulation for putting up such an extraordinary

DEPARTMENT TOPPERS OF GTU EXAM TERM 232

3rd YEAR SEM-05 EC TOPPERS



RANK : 1ST SPI – 9.43
SAHANI PRABHA P.
(216150311016)



RANK 2nd SPI – 8.43
YADAV SHUBHAM R.
(216150311007)



RANK 3rd SPI – 8.36
SHUKAL MAITRY H.
(216150311001)

2nd YEAR SEM-04 EC TOPPERS



RANK 1ST SPI – 8.91
PANCHAL RIYA K.
(226150311012)



RANK 2nd SPI – 8.77
**RAJPUROHIT SHRIYAM
SHAIENDRASINGH**
(226150311019)



RANK 3RD SPI – 8.32
**SARVAIYA MAMTABEN
JASHUBHAI** (226150311022)

1ST YEAR SEM-02 EC TOPPERS



RANK 1ST SPI –
7.53 PAL SWATI
KANAIYALAL(236150311014)



RANK 2nd SPI – 6.11
KALPANA LATWAL(236150311006)

STUDENT'S ACHIEVEMENTS

GOVERNMENT POLYTECHNIC FOR GIRLS, SURAT

Information & Communication Technology Department

Wishing all of you a heartfelt congratulation for putting up such an extraordinary

DEPARTMENT TOPPERS OF GTU EXAM TERM 232

2nd YEAR SEM-04 ICT TOPPERS



1ST RANK
SPI – 9.43
PATEL FRENY
SHAILESHBHAI
(226150332039)



RANK 2ND
SPI – 9.33
CHAUDHRI
VAISHNAVI
SAILESH
(226150332010)



RANK
SPI – 9.24
SONI SUSHMITA
RAMHARKHBAHAD
UR
(226150332067)

3RD



3 RD RANK
SPI – 9.24
SHUKLA RASHI
OMPRAKASH
(226150332064)

DEPARTMENT TOPPERS OF GTU EXAM TERM 232

1ST YEAR SEM-02 ICT TOPPERS



1 ST RANK SPI –
8.67 DALAL
ANJALI SUNIL
(236150332013)



1 ST RANK SPI –
8.67 KESHARI
MANSHI RAJNISH
(236150332024)



2ND RANK SPI – 8.52
CHAMRIYA
KHUSHILA
UMEDBHAI
(236150332008)

2



3 RD RANK SPI –
8.43
VARSAIDIYA
PALAK
RAJENDRAKUM
AR
(236150332075)

PRIZE DISTRIBUTION CEREMONY FOR ELECTRONICS GTU RANKER HELD AT
ANNUAL FUNCTION GOONJ -2024

SEM-02 RANKER Students of EC Department in GTU EXAM



PANCHAL RIYA K.
226150311012
1ST RANK
SPI- 8.58



PATEL PRAGNIKA D.
226150311014
2ND RANK
SPI- 7.32



RAJPUROHIT
SHRIYAM S.
226150311019

3RD Rank
SPI- 7.21

PRIZE DISTRIBUTION CEREMONY HELD AT ANNUAL FUNCTION GOONJ -2024
SEM-04 RANKER Students of EC Department in GTU EXAM



SAHANI PRABHA P.
216150311016
1ST Rank
SPI- 8.86



SHUKAL MAITRY H.
216150311001
2ND Rank
SPI- 8.05



YADAV SHUBHAM R.
216150311007
3RD Rank
SPI- 7.95

PRIZE DISTRIBUTION CEREMONY HELD AT ANNUAL FUNCTION GOONJ -2024
SEM-06 RANKER Students of EC Department in GTU EXAM



PADHIYAR
KOMALBEN
206150311002
1ST RANKER
SPI- 9.33



RIYA PATEL
206150311005
2ND RANKER
SPI- 9.27



NEEVA VALVI
206150311009
3RD RANKER
SPI- 8.53

PRIZE DISTRIBUTION CEREMONY FOR ELECTRONICS GTU RANKER HELD AT ANNUAL FUNCTION GOONJ -2024

SEM-02 RANKER Students of ICT Department in GTU EXAM



SHUKLA RASHI OMPRAKASH
(226150332064)
1ST RANK SPI - 8.62



SAHANI NANDA PRAHLAD
(226150332058)
2ND RANK SPI – 8.29



CHAUDHRI VAISHNAVI
SHAILESH (226150311019)
3RD RANK SPI – 8.24

APPRECIATION CEREMONY HELD GPG. SURAT -2024

EC & ICT SEM -04 Term 232



2nd YEAR SEM-04 EC TOPPERS



RANK 1ST SPI – 8.91
PANCHAL RIYA K.
(226150311012)



RANK 2nd SPI – 8.77
RAJPUROHIT SHRIYAM
SHAILENDRASINGH
(226150311019)



RANK 3RD SPI – 8.32
SARVAIYA MAMTABEN
JASHUBHAI (226150311022)

2nd YEAR SEM-04 ICT TOPPERS



1ST RANK
SPI – 9.43
PATEL FRENY S.
(226150332039)



2ND RANK
SPI – 9.33
CHAUDHRI
VAISHNAVI S.
(226150332010)



3RD RANK
SPI – 9.24
SONI SUSHMITA R.
(226150332067)



3RD RANK
SPI – 9.24
SHUKLA RASHI O.
(226150332064)

STUDENT'S ACHIEVEMENTS

Special Collage Handprint Art on E.C. department walls made by Electronics and communication department students at Government Polytechnic for Girls, Surat. The future architects, artists, creatives, and designers have explored and expressed themselves by their creativity.



The Information and Communication Technology (ICT) department students at Government Polytechnic for Girls, Surat decorated the lobby including both the side with beautiful photographs of different activity & event held at Government Polytechnic for Girls, Surat.



STAFF ACHIEVEMENT

- Mrs. J.R. Patel , Ku. P.A. Patel and Ku. I.M. Mistry participated in industrial training on "Integration of Electronics & Communication Engineering in Dairy Technology" at Sumul Dairy, Surat, from July 8 to July 28, 2024.



- Mrs H. R. Mehta has participated in industrial training at hydro Power Station, Kevadia from July 8 to July 28, 2024.



- Mr. D.Y. Vankawala and Mr. R.P. Hun attended industrial training on "Integration of Electronics & Communication Engineering in Dairy Technology" at Sumul Dairy, Surat, from July 8 to July 28, 2024.



- Mr. G.R. Gajjar and Mr. A.D. Dobariya participated in industrial training at BSNL, Surat, from July 15 to August 3, 2024.

- Mr. K.F. Chaudhari attended industrial training at Thermal Power Station, Ukai, from July 15 to August 4, 2024.

