



Department of Electronics & Communication Engineering

GOVERNMENT POLYTECHNIC FOR GIRLS, SURAT

APRIL -2023: Vol.-01

EC TRENDS

E-Newsletter



Electronics and Communication

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.

Message from Head of Department



Smt . K. N. Vaghela

Dear Readers,

It gives me great pleasure to present you this volume 01 of April 2023. This is a platform for students as well as faculty members and other stake holders like industrialist, alumni and other faculty members of peer institutes of the electronics and communication engineering. At this juncture, I would like to thank all my faculty members those who have participated directly or indirectly in editing, proof reading and designing this bit and implementing my idea and realizing thought in to reality with quite committed platform for technological, innovative, creative skills and forth coming development in the field of electronics and communication as well as its diversification for enhancing lifelong learning and project management with team building skills.

I acknowledge the efforts put by my students' and faculty members of electronics and communication engineering department.

Keep it up!!!

Supriya Mangalpalli have published a document in electronics4u on “The Relevance of Hardware in Software-Defined world” @ 1st Feb 2023. Here we have taken this document so that all can be aware of latest trends in electronics/technology.

TRENDS IN ELECTRONICS FIELD

The Relevance of Hardware in Software-Defined World

By Supriya Mangalpalli

The current state of the semiconductor industry worldwide is becoming digital, and semiconductors are the underlying technology powering this innovation. The need for exponentially more computing power is being met through innovations, new discoveries, and disruptions. But with increasing use of software-defined equipment, the importance of underlying hardware cannot be ignored.

The traditional fixed-function application-specific integrated circuits (ASICs) hold back network flexibility and prevent the developer from deciding how the network will work. Switch equipment manufacturers have to hard code that functionality into the silicon, which results in generic fixed protocols that aren't suited to every situation. As a result, anytime network administrators need to update their switch protocols, they have to replace the hardware in order to do so.

“The significant jump in performance is due to amazing innovations. We are capable of moving electrons through the channel faster by using increased strain and more low-resistant materials. We are also delivering better energy control through novel high-density patterning techniques and some streamlined structures, and we're going to be enabling improved power delivery and better routing with higher metal stacks,” says Nick McKeown, SVP/GM of the Network and Edge Group at Intel. Hence, it's safe to say that semiconductor innovation and Moore's law are alive.

Now, with technological advancement, we have a programmable switch ASIC and network owners can deploy new protocols as fast as they can develop them through the software layer by just downloading them in the field. As a result, network owners can update their switch functionality to keep pace with new cloud-based workloads without having to replace the hardware.

Reference:

<https://www.electronicsforu.com/technology-trends/relevance-of-hardware-in-software-defined-world>

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



Expert Lecture on “Importance of Human Values in Engineering” Dt.: 23/01/2023 by Mr. Samir Shah, Sr Lecturer, Mech Dept., MSU, Baroda @ Vivekanand Hall

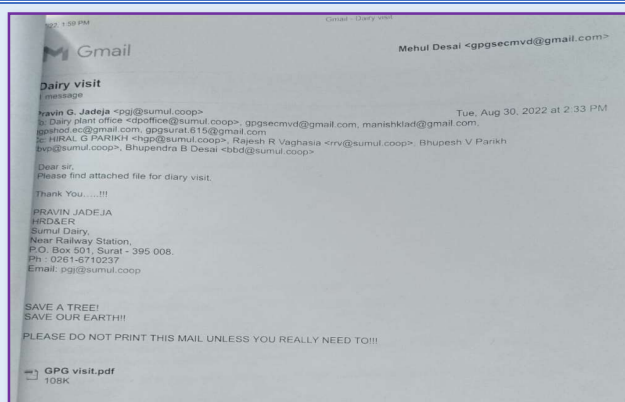
Expert Lecture on topic “Modern Trends in Communications” for EC department students on 2nd September 2022. The students explored potential areas for their development. The students appreciated the demonstration and expressed gratitude towards speaker for sharing his expertise with them.



**SEM-01 student's orientation program by EC- ICT staff @
Date: 22-09-2022**



**Visit to SUMUL DAIRY,
SURAT @ 05/09/2022 of 5th Sem
Students.**



Visit to Sports Complex Dt.: 20/12/2023



Gymkhana Activities

**Seminar on “Kidney Awareness
Program” Dt.: 23/01/2023 @ SP Hall**



**Seminar “ Woman Empowerment
” Dt.: 01/02/2023 @ Vivekanand Hall**



**Seminar on “Kanuni sikshan sibir तथा kanuni jagruti karykram” Dt.: 02/02/2023 @
Vivekanand Hall**



Rangoli Competition Dt.: 13/09/2022



**National Energy Conservation Day
Celebration Dt.: 15/12/2022**

NCC/NSS Activities

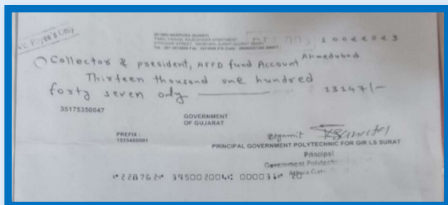
**NCC Awareness Program for first year
students Dt.: 03/10/2022**



**IFA (Iron & Folic Acid) tablets
distribution Dt.: 03/01/2023**



Republic Day Celebration Dt.: 26/01/2023



**Cheque of 13,147/- INR for Sainik
welfare fund Dt.: 10/02/2023**



**Coatsal area cleanliness drive Dt.:
13/09/2022**

SSIP Activities



SSIP 2.0

STAFF ACHIEVEMENT



- ✚ Mrs. K. N. Vaghela has completed the training on “PATENT DRAFTING AND FILING”
- ✚ Mr. Ramesh P. Hun has edited a chapter in a book called “Lighter Than Air Systems” Proceedings of the International Conference on Design and Engineering (DELTA-2022) in international Springer Nature Singapore publisher.
- ✚ Dr. Mehul V. Desai, was a part of the paper publishing team of "Implementation and Analysis of Grid-Based Ionospheric Correction Technique and Positioning Errors of NavIC+ GPS ARAMIS SDR Receiver." IETE Technical Review (2021 Impact Factor: 1.932), pp. 1-7, 2022, (19/12/2022). <https://doi.org/10.1080/02564602.2022.2152880> SCI indexing journal.
- ✚ Mr. Divyesh U. Patel & Mr. Kalpesh F. Chaudhari has completed the training on “Lab Manuals Development for Outcome Based Curriculum”.
- ✚ Mr. Parth D. Patel has completed the training on “Development of lab manuals for outcome based curriculum”.
- ✚ Kum. Kalpana R. Chaudhari & Mrs. Purvi. A. Patel has completed the training on “Programming, Data Structures and Algorithms Using Python”.
- ✚ Dr. Mehul V. Desai has completed the training on “Principles of Modern CDMA/ MIMO/ OFDM Wireless Communications”.
- ✚ Mr. Dhruwank. Y. Vankawala has completed the training on “Outcome based Curriculum Design and Development”.
- ✚ Mrs. Paulomi N. Patel has completed the training on “Technology Enable Learning and Assessment”.
- ✚ Mr. G.R GAJJAR Has Completed the Training On “Outcome Based Education and Accreditation” & “Digital Innovations in Technology and Supply Chain Management”.

STUDENT'S ACHIEVEMENTS (Academics)

EC DEPARTMENTAL SEM-5 GTU EXAM TOPPERS OF WINTER -2022

SEMESTER 6



RANK 1ST SPI- 9.2
PADHIYAR
KOMALBEN S
(206150311002)



RANK 2ND SPI - 8.8
RIYA PATEL
(206150311005)



RANK 3RD SPI- 8.53
RAJAK KAJAL RAJU
(206150311003)

MID SEM EXAM DEPARTMENTAL TOPPERS

EC SEM-03



RANK 1ST 78%
SAHANI PRABHA P.
(216150311016)



RANK 2ND 61 %
SHUKAL MAITRY H.
(216150311001)



RANK 3RD 60%
YADAV SHUBHAM R.
(216150311007)

EC SEM-01



RANK 1ST 83%
PANCHAL RIYA K.
(226150311012)



RANK 2ND 71.5%
PATEL PRAGNIKA D.
(226150311006)



RANK 3RD 65.5%
RAJPUROHIT SHRIYAM
S. (226150311019)

ICT SEM-01



RANK 1ST 82.5%
CHAUDHRI
VAISHNAVI S.
226150332010



RANK 2ND 80%
PIPALIYA
NIDHIBEN M.
226150332056



RANK 2ND 80%
PANWALA
ALAFIYA T.
226150332037

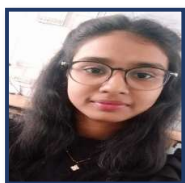


RANK 3RD 75%
PATEL FRENY S.
226150332039

STUDENT'S ACHIEVEMENTS (Co-Curricular)

AZADI KA AMRIT MAHOTSAV HACKATHON-2022

Following final year students' project have been selected for the **Grand Finale Round of Azadi ka Amrit Mahotsav Hackathon-2022** on date 10.02.2023 & 11.02.2023 at Drs. Kiran and Pallavi Patel Global University (KPGU), Vadodara. Firstly, they have participated in the Regional Round of Azadi ka Amrit Mahotsav Hackathon-2022 on date 07.10.2022 & 08.10.2022 at GEC Surat.



RAJAK KAJAL R.

Enrollement no: 206150311003



PATEL RIYA S.

Enrollement no: 206150311005



VALVI NEEVA S.

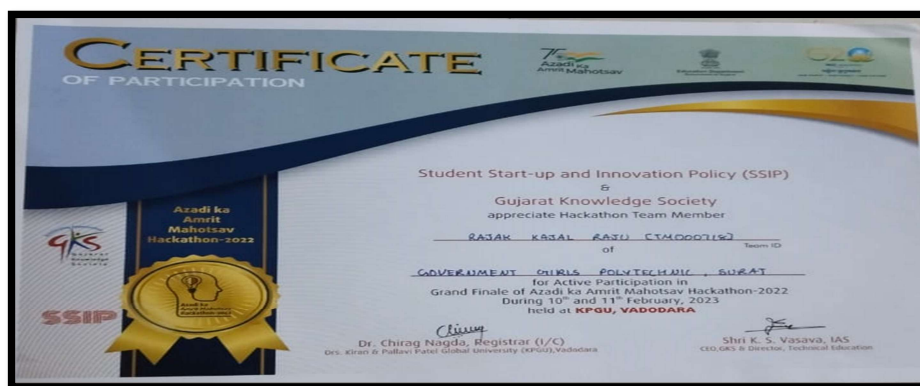
Enrollement no: 206150311009

Guided By: Mr. Ramesh. P Hun, Lecturer, E.C & Mr. Manish. K. Lad, Lecturer, E.C.

Description of the Project:

The main aim of our project is the live line detector should be able to indicate whether the line is ON or not. When the fault occurs, it is difficult to detect & Identify Fault location with the particular place or if any fault occurs then we need to turn off the whole area to repair the fault occur area Hence the Man power is also increased to identifying The Place of fault occurs.

The device should have the communication module fitted with it such that it should be able to send the data regarding power availability to the server. A person sitting at central control unit can check the status of power line with the help of cloud.



CERTIFICATE OF PARTICIPATION IN AZADI KA AMRIT MAHOTSAV HACKATHON-2022