

TECHNOZOLA

A CSE Students Association



YOUR FEST
2K20

NEWS LETTER

THE OFFICAL LETTER OF THE DEPARTMENT OF CSE

JAN -2K20



DEC - 2K19

ARTICLE

GI-FI TECHNOLOGY

INTRODUCTION:

Wi-Fi(IEEE-802.167e) and WI-MAX(IEEE-802.16E)have captured our attention ,as there are no recent developments in technologies which cannot transfer data and video transformation at a faster rate and led to information of GI-FI technology. It offers some advantages over Wi-Fi, a similar wireless technology,that offers faster information rate in Gbps less power consumption and low cost for short range transmissions.

GI-FI or Gigabit Wireless is the world's first transreciever integrated on a single chip in which a small antenna used both Transmitter and Reciever are integrated on a single chip which is fabricated using complimentary metal oxide semiconductor (CMOS) process. Because of GI-FI transfer of large videos ,files can be done within seconds.

Researchers of Melboume university has come up with a wireless technology which promises high speed upto 5Gbps within a radius of 10 meters.The new wireless technology is named as GI-FI and operates on the 60GHz frequency band,which is currently mostly unused.The GI-FI chip developed by the Australian Researcher's measures 5mm square and is manufactured using existing complimentary metal oxide semiconductor (CMOS) technology,the same system that is currently used to print silicon chips.



For many years Cables ruled the world. Optical fibers played a dominant role because of its higher bit rates and faster transmission. But the installation of cables caused a greater difficulty and thus led to wireless access. The foremost of this is Bluetooth, which can cover 9-10 meters. Wi-Fi followed having its coverage area of 91 meters.

The development will enable the truly wireless office and home in the future. As the integrated transceiver is extremely small, it can be embedded into devices. The breakthrough will mean the networking of office and home equipment without wires will finally become a reality. In this paper we present a low cost, low power and high Broadband chip, which will be vital in enabling the digital economy of the future.

Short range wireless technology is a hotly contested area, with research teams around the world racing to be the first to launch such a product.

Introduction to Wi-Fi has brought a revolutionary solution to "last mile" problem. However the standards original limitations for data...exchange rate and range, number of channels, high cost of infrastructure have not yet made possible to make possible.

Why GI-FI?

The reason for pushing into GI-FI technology is because of slow rate, high power consumption, low range of frequency operations of earlier technologies i.e, Bluetooth and Wi-Fi.

A new silicon chip developed in Melbourne is predicted to revolutionize the way household Gadgets like Televisions, phones and DVD players talk to each other. The tiny five-millimeter-a-side chip can transmit data through a wireless connection at a breakthrough five gigabits per second over distances up to 10 meters. An entire high-definition movie could be transmitted to a mobile phone in few seconds, and the phone could then upload the movie to a home computer or screen at the same speed.



The chip shown in the above figure uses the 60GHz “millimeter wave” Spectrum to transmit the data, which gives an advantage over Wi-Fi (wireless internet). Wi-Fi’s part of the spectrum is increasingly crowded sharing the waves with devices such as cordless phones, which leads to interference and slower speeds. But the millimeter wave spectrum (30 to 300GHz) is almost unoccupied, the new chip is potentially hundreds of times faster than the average home Wi-Fi unit. However, Wi-Fi still benefits from being able to provide wireless coverage over a greater distance.

Bluetooth verses Wi-Fi

Characteristic	Bluetooth	Wi-Fi
Frequency	2.4 GHz	2.4 GHz
Range	10 meters	100 meters
Primary application	WPAN: cable replacement	WLAN: Ethernet
Data transfer rate	800 Kbps	11 Mbps
Power consumption	Low	Medium
Primary devices	Mobile phones, PDAs, consumer electronics, office and industrial automation devices	Notebook computers, desktop computers, servers
Primary users	Traveling employees; electronics consumers; office and industrial workers	Corporate campus users
Usage location	Anywhere at least two Bluetooth devices exist — ideal for roaming outside buildings	Within range of WLAN infrastructure, usually inside a building
Development start date	1998	1990
Specifications authority	Bluetooth SIG	IEEE, WECA

DISADVANTAGES OF BLUETOOTH AND Wi-Fi:

From above table we can conclude that the bit rates of Bluetooth is 800Kbps and Wi-Fi has 11Mbps. Both are having power consumptions 5mw and 10mw. And lower frequency of operation 2.4GHz. For transferring large amount of videos, audios, data files take hours of time. So to have higher data transfer rate at lower power consumption we move onto

Gi-Fi technology.

FEATURES OF Gi-Fi:

The Gi-Fi standard has been developed with many objectives in mind. These are summarized below:

1. High speed of data transfer:

The main invention of Gi-Fi is to provide higher bit rate. As the name itself indicates, data transfer rate is in Giga bits per second. Speed of Gi-Fi is **5 gbps**, which is 10 times the present data transfer. Because of wider availability of continuous 7 GHz spectrum, results in high data rates.

2. Low Power Consumption:

As the large amount of information transfer, it utilizes milli-watts of power only. It consumes only 2 mWatt power for data transfer of gigabits of information, whereas in present technologies it takes 10 mWatt power, which is very high.

3. High Security:

Point-to-point wireless systems operating at 60 GHz have been used for many years by the intelligence community for high security communications and by the military for satellite-to-satellite communications. The combined effects of O₂ absorption and narrow beam spread result in high security and low interference.

4. Cost-effective:

Gi-Fi is based on an open, international standard. Mass adoption of the standard, and the use of low-cost, mass-produced chipsets, will drive costs down dramatically, and the resultant integrated wireless transceiver chip which transfers data at high speed, low power, at low price \$10 only, which is very less. As compared to present systems, as development goes on, the price will be decreased.

Other features:

High level of frequency re-use enabled – communication needs of multiple customers within a small geographic region can be satisfied. It is also highly portable – we can construct wherever we want. It deploys line-of-sight operation, having only shorter coverage area, it has more flexible architecture.

APPLICATIONS:

There are many usage scenarios that can be addressed by Gi-Fi. The following are some mobility usage applications of Gi-Fi.

Office appliances:

As it transfer data at high speed which made work very easy. It also provides high quality of information from internet.

In wireless pan networks:



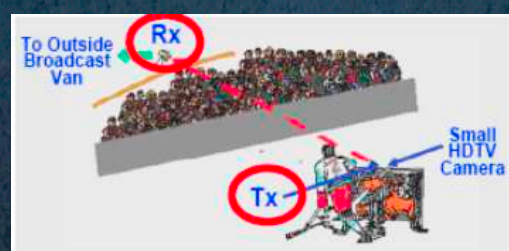
Inter-vehicle communication system :



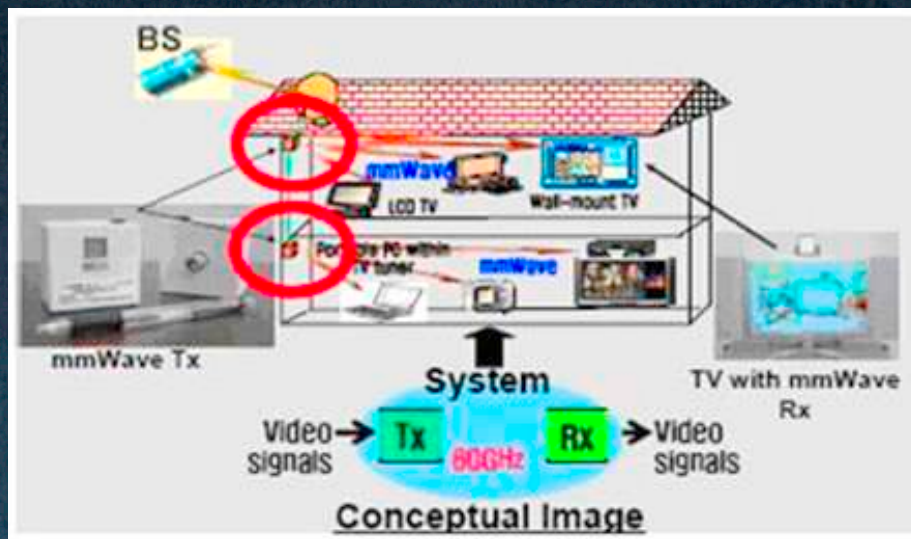
Huge data file transmission:

It will transfer gigabits of information within seconds

Broadcasting video signal transmission system in sports stadium :



n: Ad-hoc information distribution with Point-to-Point network extensio



Easy and immediate construction of temporal broadband network such as in exhibition-site for...Advertisement information distribution or Contents downloading service.

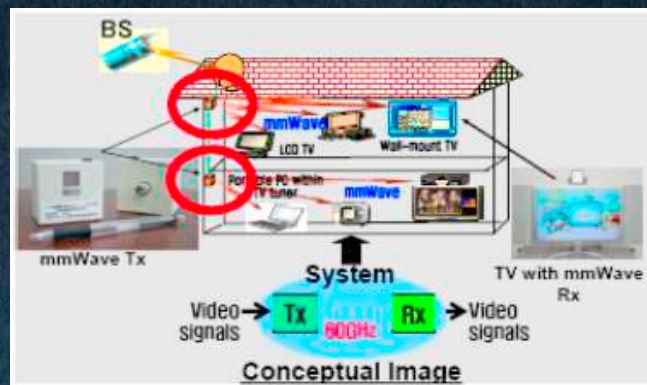
Households appliances:

Consumers could typically download a high definition from a kiosk in a matter of seconds to a music player or a smart phone and having got home could play it on a home theatre system or store it on a home server for future viewing, again within a few seconds .High speed internet access, streaming content (video on demand, HDTV ,home theatre etc),real time streaming and wireless data bus for cable replacement. It makes the Wireless Home and a Office of the future.

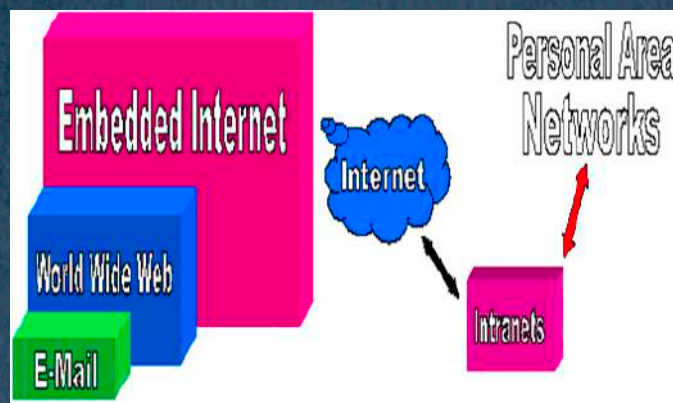
Video information transfer:

By using present technologies video swapping takes hours of time, where as by this we can transfer of gbps. Data transfer rate is as same for transfer of information from a PC to a cell or cell to PC. It can enable wireless monitors, the efficient transfer of data from digital camcorders, wireless printing of digital pictures from a camera without a need for an intervening personal computer and the transfer of files among cell phone handset and other handled devices like personal digital audio and video players.

mm-Wave video-signals transmission system



Media access control(MAC) and imaging and others:



Future:

As the range is limited to shorter distances only we can expect the broad band with same speed and low power consumption.

Technology Considerations:

The Gi-Fi integrated transceiver chip is may be launched by starting of next year by NICTA, Australia will be the first. Due to the less cost of chip many companies are forward to launch with lower cost. The potential of mw-WPAN for ultra fast data exchange has prompted companies like Intel,LG,Matsushita(Panasonic),NEC,Samsung,SiBEAM,Sony and Toshiba to from WirelessHD,an industry-led effort to define a specification for the next consumer electronic products.Specifically,WirelessHD has an stated goal of enabling wireless connectivity for streaming high-definition connect between source devices and high definition displays.

By;

Ch. RupaDevi,

18NG1A0507.

II CSE-A

PYTHON PROGRAMMING AN INDUSTRY PERSPECTIVE



A Five days Faculty Development Program (FDP) on “Python programming an Industry Perspective” was organized by the Department of Computer Science and Engineering , URCET in jointly organized by : Electronics & ICT Academics by the Electronics and Information Technology (MeitY), Government of India during 02 – 06 December 2019.

 **GLOBAL WINTER COURSE**  *Digital India*
PYTHON PROGRAMMING
AN INDUSTRY PERSPECTIVE

DATES: December 2-6, 2019  Ministry of Electronics and Information Technology
Government of India

Course Contents:
Introduction, Basic Syntax, Control Statements, Functions, Object Oriented Programming, Tuples, Lists, Dictionaries, Sets, File Handling, Pandas, Python Regular Expressions, Exception handling, Machine Learning

TIME: 9 AM – 5 PM
VENUE: NKN -2, MNIT Jaipur
FEE: Rs 1000/- Refundable

IBM
RESOURCE PERSONS
Dr. Mani Madhukar
University Relations IBM
Mr. Ishan Vaid
Trainer, IBM Partner

 **Global Coordinator**
Dr. Pilli Emmanuel S. **9549658131**

Local Coordinators
Dr. Dinesh Tyagi, Dr. Mushtaq Ahmed
9549658130, 9549654176



STUDENT'S ACHIEVEMENT

K.Surya of III B.Tech student of CSE department won 1st prize in Mock IELTS conducted by Literary Club of Usha Rama on 14/12/2019. Also got another award for Best in Listening round.

Score:

Listening: 9

Reading: 6.5

Writing: 7

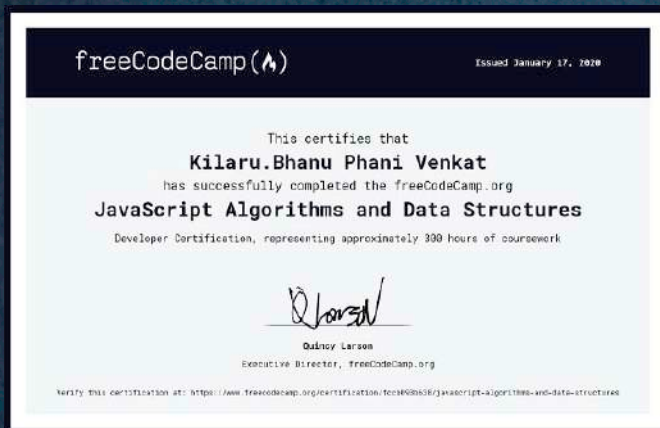
Speaking: 8.5

Band Score: 7.5

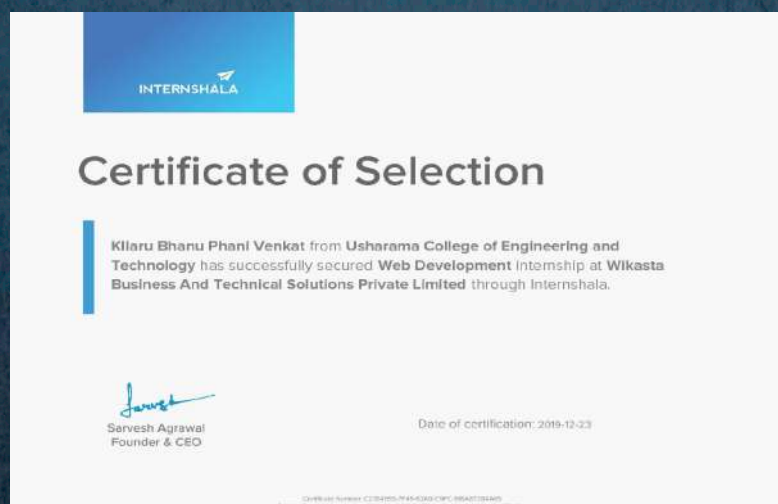
Prize: Rs. 2000 and Amazon Pay Voucher worth Rs. 500



K.Bhanu Phani Venkat of IV/IV B.Tech (Sec-B) CSE Department has completed the Free Code camp developer certification in "Responsive Web Desing" on january 17 ,2020.



K.Bhanu Phani Venkat of IV/IV B.Tech (Sec-B) CSE Department has secured Web developement intershiping at Wikastsa Business And technical Solutions private Limited on january 17, 2020.



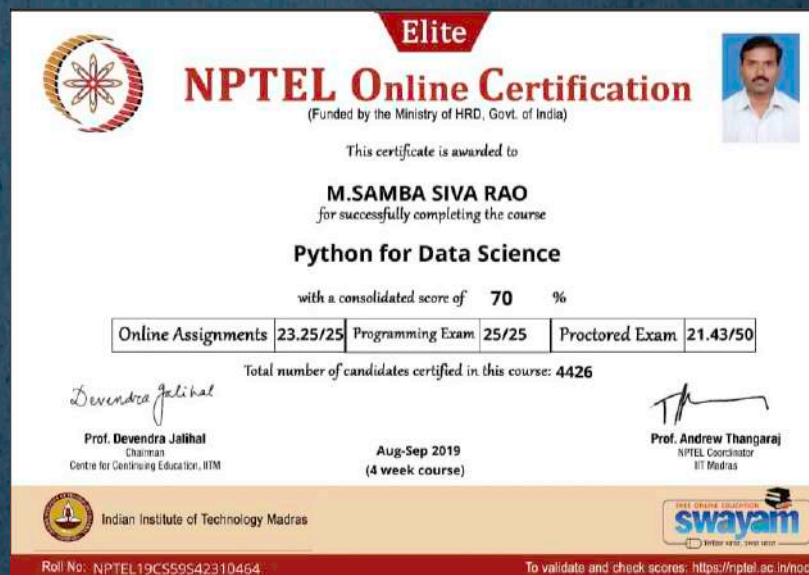
FACULTY ACHIEVEMENT

Dr.Kurra Rajasekhara Rao, Professor of CSE Department, Usha Rama College of Engineering and Technology, Chairman of CSI - Vijayawada Chapter was awarded with “**Patron Award**” for his outstanding and significant contribution to the CSI Activities, by India’s prestigious professional society, Computer Society of India (CSI) for the year 2017-19.





Dr. K.P.N.V Satyasree, Professor of CSE Department has successfully completed the course “The Joy Of Computing Using Python” with a consolidated score of 90%. She was one of the person who was awarded certificate out of 8505 certified candidates. The Joy Of Computing Using Python is a 12 week course from July 2019 to October 2019.



M. Samba Siva Rao, Associate Professor of CSE Department has successfully completed the course “Python for Data Science” with a consolidated score of 70%. He was one of the person who was awarded certificate out of 4426 certified candidates. Python for data Science is a 4 week course from Aug 2019 to Sep 2019.

PATENTS

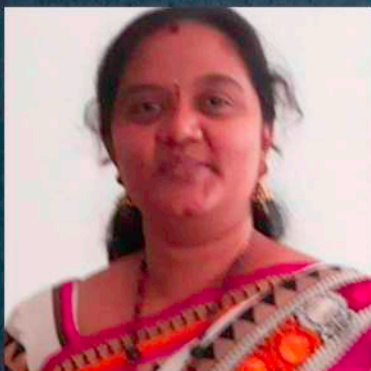


Dr.S M Roychoudri
(Head of the department)

* Patent inventor: Dr.S M Roychoudri title : "**Semantic web service composition using multilevel workflow orchestration and methode thereof**" -IPR, the patent office journal no .50/2019 date of publication : 13/12/2019, date of filing : 28/11/2019, Application no : 201941048886, no of pages :19

* Patent inventor Dr.S M Roychoudri title : "**Semantic data transmission and storage method for colude based network**" - IPR, the patent office journal no . 1/2020 date of publication : 3/1/2020, date of filing : 23/12/2019, Application no :201941053462 A, No of pages :23, No of claims :4

* Patent inventor Dr.S M Roychoudri title : "**smart scheduling method for low engergy consumption in wireless sensor** ." -IPR, the patent office journal no . 04/2020 date of publication : 24/1/2020, date of filing : 31/01/2020, Application no :201941054665 A, No of pages :19, No of claims :6



Dr.K P N V Satyasree

* Patent inventor: Dr.K P N V Satyasree Title : "**Semantic web service composition using multilevel workflow orchestration and methode there of**" -IPR, the patent office journal no .50/2019 date of publication : 13/12/2019, date of filing : 28/11/2019, Application no : 201941048886, no of pages :19

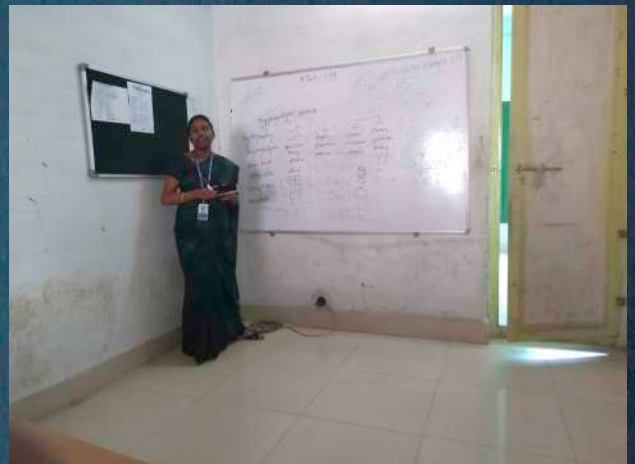
* Patent inventor Dr. K P N V Satyasree Title : "**Semantic data transmission and storage method for colude based network**" - IPR, the patent office journal no . 1/2020 date of publication : 3/1/2020, date of filing : 23/12/2019, Application no :201941053462 A, No of pages :23, No of claims :4

FACULTY ORIENTATION PROGRAM

Manimala, Assistant Professor of CSE department in Usha Rama College of Engineering College gave a Faculty Orientation Program on "Concurrent Parallel Processing" on 7th December 2019 in R304 room at 12:15 p.m.



K. Rampriya, Assistant Professor of CSE department in Usha Rama College of Engineering College gave a Faculty Orientation Program on "Cryptographic attacks" on 24th December 2019 in R304 room at 12:15 p.m.



Yamini, Assistant Professor of CSE department in Usha Rama College of Engineering College gave a Faculty Orientation Program on "Software Engineering" on 17th December 2019 in R304 room at 12:15 p.m.



STUDENT ' S PLACEMENTS

Students Recruited by **EFFTRONICS**

The following students got placed in Efftronics Placement Drive

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16NG1A0501 (ADDEPALLI TEJA SRI)

16NG1A0514 (GHANTA YOGENDRA NAGA SATWIK)

16NG1A0526 (KOLLIPARA PALLAVI)

16NG1A0556 (SURYADEVARA PRATUSHA)

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అమరావతి సాంకేతికాంశం
16
గన్నవరం
ఆంధ్రజ్యోతి 5
2020-10-16
16 అక్టోబర్ 2020
www.ajyoti.com

ప్రాంగణ ఇంటర్వ్యూలో నలుగురికి ఉద్యోగాలు

తెలంగాణ (ఉంగుటూరు) జనవరి 29: ఉషారామా ఇంజనీరింగ్ కళాశాలలో విజయవాడకు చెందిన ప్రముఖ కార్పొరేట్ సంస్థ ఎస్ ట్రానిక్స్ కంపెనీ వారు ఐదవ వారు ప్రాంగణ ఎంపికలు నిర్వహించారు. కళాశాలలో సీఎస్ఈ, ఈఈఈ, ఈసీఈ, ఎటీ విభాగాలకు చెందిన సుమారు 135 మంది విద్యార్థులు పాల్గొన్నారు. ఆన్ లైన్ పరీక్ష, టెక్నికల్ 1, టెక్నికల్ 2, హెల్త్, ఫీల్డింగ్ పరీక్షల్లో నలుగురు విద్యార్థులు ప్రతి ప కనబర్చి ఆర్ అండ్ డీ ఐఐసీఆర్ ట్రైని లోర్ కు ఎంపికైనట్లు ప్రెస్సిఫార్ జీవీకెఎస్ వివ్ర

విద్యార్థులను అభినందిస్తున్న చైర్మన్ సుంకర రామబ్రహ్మం

సాద్ తెలిపారు. విద్యార్థులను కళాశాల చైర్మన్ సుంకర రామబ్రహ్మం, డైరెక్టర్ కె.రాజ శేఖరరావు, కళాశాల ఇన్ఛేజ్, ఉపాధి అధికారి విమలహీష్ అధీనంబులారు.

STUDENT APPRECIATION LETTERS:(A.Y:2019-2020)

Students got appreciation Letters in academics by Dr. SM Roychoduri, Head of the department computer science engineering ,for securing 1st ,2nd and 3rd places in 2-1,3-1 and 4-1 results



DASU REVATHI ANNAPURNA,
19NG5A050



TALUPULA SAHITHI
18NG1A0548



KUKKAMALLA MAHIMA
17NG1A0529



ALURI HIMA BINDU
17NG1A0502



MARRAPU CHANDRIKA,
17NG1A0536



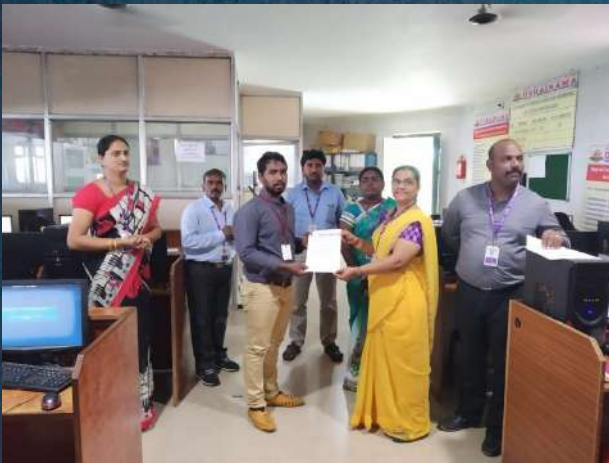
KALAKOTI JYOTHI,
17NG1A0523



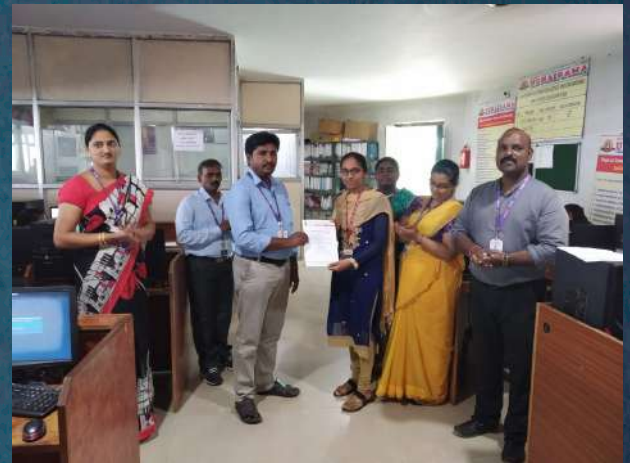
GUNTIMAHATHI
17NG1A0521



RAVURI MONIKA NAGA SAI
16NG1A05A5



PAMU RAJKIRAN
16NG1A0543



ADDEPALLI TEJA SRI
16NG1A0501



SURYADEVARA PRATYUSHA
16NG1A0556

UG FELLOWSHIP SEMINAR

Department of CSE, Usha Rama College of Engineering Technology ,organized a seminar on "UG Fellowship" (project based international summer internship program) on january 28,2020. The guest of honor for the seminar is Dr.Sandeep Inamdar, Director, CGC, India. The objective of this program is to take students from Project Based Learning (PBL) to Start-ups/Better Employment/Masters abroad.



YOUR FEST 2K20

yoUR fest, is the annual techno culture festival of Usha rama college of Engineering and Technology, Telaprolu, Near gannaravam. yoUR Fest aimed at bringing out the best in engineers by accumulating thousand of students from all over different institution. There are many events conducted under this yoUR fest like poster presentation, Paper presentation, Code Royale, Technical quiz, Techno than, Google master, Tech synonym, Technical jam, Data visualization with R, Build the web, Guesstimate, Engineers ka Mahasangram, Telugu Ammayi



TELUGU AMMAI

yoUR fest, is the annual techno culture festival of Usha rama college of Engineering and Technology, Telaprolu, Near gannaravam. yoYR Fest aimed at bringing out the best in engineers by accumulating thousand of students from all over different institution. There are many events conducted one of the event is Telugu Ammayi



ఘనంగా ముగిసిన యువర్ ఫెస్ట్ - 2020

తేలవ్రోలు (ఉంగుటూరు), జనవరి 4: హార్మిస్టాయి వజ్రీత్వం కలిగిన వారిగా తీర్చిదిద్దాలనే లక్ష్యంతో యువజనోత్సవాలు నిర్వహిస్తున్నట్లు ఉపా రామా ఇంజనీరింగ్ కళాశాల సెక్రటరీ అండ్ కరస్పాండెంట్ సుంకర అనిల్ పేర్కొన్నారు. స్థానిక కళాశాలలో రెండు రోజులుగా నిర్వహిస్తున్న యువజనోత్సవాలు, యువర్ ఫెస్ట్ - 2020 శనివారం ఘనంగా ముగిశాయి. ఆయన మాట్లాడుతూ ఉద్యోగ ఉపాధి అవకాశాలు అందిపుచ్చుకునేందుకు యువత తమకున్న నైపుణ్యాల మెరుగుదలపై దృష్టిసారించాలన్నారు. పలు అంశాల్లో విజేతలకు చైర్మన్ సుంకర రామబ్రహ్మం బహుమతులు అందజేశారు దేశవ్యాప్తంగా 40 ఇంజనీరింగ్ కళాశాలల నుంచి సుమారు 3405 మంది ఇంజనీరింగ్ విద్యార్థులు 40 టెక్నికల్ అండ్ కల్చరల్ అంశాల్లో పోటీపడ్డారు.



తెలుగుమ్మాయి పోటీలో విజేతలుగా నిలిచిన జ్యోత్స దేవి, లక్ష్మీప్రసన్న

ఆంధ్రజ్యోతి ABN Sun, 05 January 2020 <https://epaper.andhrajyothy.com/c/47659665>



USHA RAMA COLLEGE IS PARTICIPATED IN UNNAT BHARAT ABHIYAN

Usha Rama College Of Engineering and Technology participated in Unnat Bharat Abhiyan (UBA), a flagship programme of ministry of Human Resource Development(MHRD) and adopted five villages Telaprolu, Pottipadu, Peddavutapalli, veeravalli, Bandarugudem villages for their development in collaboration with district administration.

It was attended by Sunkara Ramabrahmam, chairman and Director Dr.Kurra Rajasekhar Rao and Dr.G.V.K.S.V.Prasad,principal and UBA coordinator M.K.Kishore,NSS coordinator V.Srihari, K.Babu Rao, M.Ravi, N.Mounica Assistant Professor, CSE.

Two hundred and fifty students participated in public survey and interacted with the people, created awareness of central Government schemes, Air pollution, plastic ban, water conservation.



SHOT ON MI A3 VAMSRIKAA



తేలప్రోలులో పర్యావరణ పరిరక్షణ ర్యాలీ చేస్తున్న విద్యార్థులు

పర్యావరణ పరిరక్షణ - ప్లాస్టిక్ నిషేధంపై అవగాహన

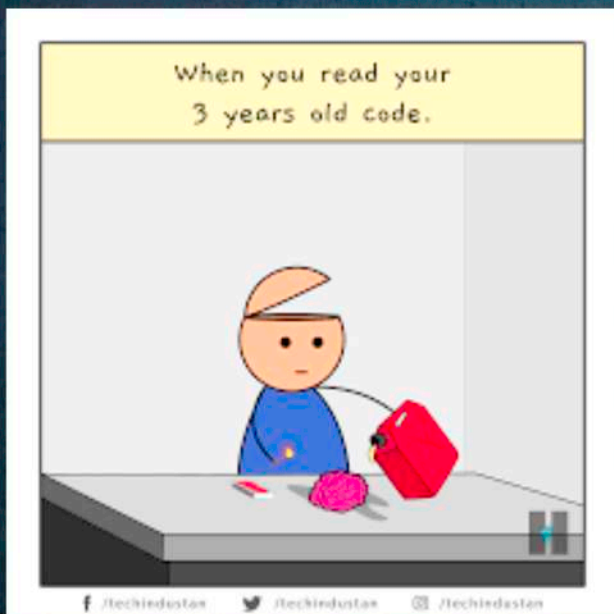
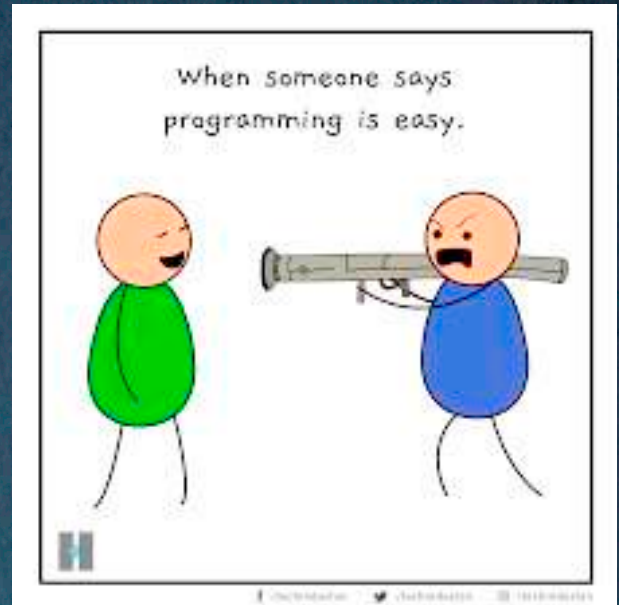
తేలప్రోలు (ఉంగుటూరు), జనవరి 30: కేంద్ర ప్రభుత్వ మినిస్ట్రీ ఆఫ్ హ్యూమన్ రిసోర్స్ డెవలప్ మెంట్ వరదిలోని ఉన్నత భారత్ అభియాన్ భాగంగా తేలప్రోలు ఉపాధ్యక్షులు ఇంజనీరింగ్ కళాశాల యాజమాన్యం వారు గ్రామాలను దత్తత తీసుకొంది. గత ఐదు రోజులుగా పెద ఆవులపల్లి, పొట్టి పాడు, బండారుగూడెం, తేలప్రోలు, వీరవల్లి గ్రామాల్లో అధ్యాపకులు, విద్యార్థులు ఇంటింటికీ తిరిగి ప్రజా సమస్యలపై సర్వే నిర్వహించారు. కేంద్ర ప్రభుత్వ పథకాలు, వాతావరణ

కాలుష్యం, నీటి సంరక్షణ, ప్లాస్టిక్ నిషేధంపై అవగాహన కల్పించారు. పర్యావరణాన్ని పరిరక్షించాలని ఆయా గ్రామాల్లో ర్యాలీలు నిర్వహించారు. ప్రజలకు ఉచితంగా గుడ్ల సంఘలు పంపిణీ చేశారు. కళాశాల వైర్లెస్ సుంకర రామబ్రహ్మం, డైరెక్టర్ కె.రాజశేఖర రావు, ప్రెసిడెంట్ జి.వి.కె.ఎన్.వి.ప్రసాద్, ఉన్నత భారత్ అభియాన్ కో-ఆర్డినేటర్ ఎం.కె.కిషోర్, ఎన్.ఎన్.ఎస్ కో-ఆర్డినేటర్ వి.శ్రీహరి, అధ్యాపకులు కె.బాబురావు, ఎం.రవి, ఎన్.మౌనిక పాల్గొన్నారు.



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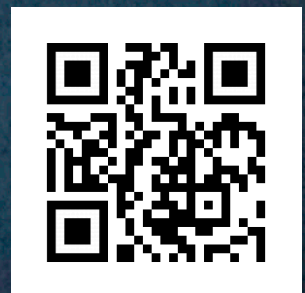
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