



## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

# INSIDE THIS ISSUE















To be an academic institute of continuous excellence towards education and research in rural regime and provide service to nation in terms of nurturing potentially higher social, ethical and engineering companion araduands.

# MISSION

- > To foster and promote technically competent graduands by imparting the state of art Engineering education in rural regime.
- > To enunciate research assisted scientific learning by dissemination of knowledge towards science, agriculture, industry and national security.



CHAIRMAN'S MESSAGE

"The great growling engine of change - Technology." As a Chairman of Rohini College of Engineering and Technology, I immensely feel proud that our students and faculty of Computer Science have come out with the newsletter. Our college possesses all the qualities of an ideal college. We have excellent course curriculum and faculty members. Our lecturers hold a respectable place in the societies is my firm belief that education is the best way to enlighten young minds and it can only be imparted in a good environment having prosperous thinking.

Shri.K.Neela Marthandan, Founder Chairman

As a Pro Chairman of Rohini College of Engineering and Technology, I feel proud that our students and faculty of Computer are releasing a newsletter. I can proudly say that our college is the most modern and sophisticated multidisciplinary institution, imparting quality education and providing a wide and varied arena for the staff and students to showcase their academic and extracurricular talents. I would take this opportunity to urge you all to focus on all round development. You should always have your education laced with morality and ethics. You should all remember that, "Honesty is the first chapter in the book of wisdom," and we should inculcate honesty and integrity in all what we do.



PRO CHAIRMAN'S MESSAGE

"Education is for improving the lives of others and for leaving your community and world better than you found it."

-Dr. N. Neela Vishnu., MBA., D. Litt., Pro Chairman



MANAGING DIRECTOR'S

As the Managing Director of Rohini College of Engineering and Technology. I extremely feel proud that my students of Computer Science have created a newsletter. Our aim is to assist the students in building their skills and becoming proficient. Our institution acts as a bridge between the student's interest and his/her career path. A student can deduce numerous aspects about the industry and therefore, gets ready for the anticipated career challenges. RCET helps to build the technical as well as artistic skills and also in developing one's critical thinking. "Keep your mind open and be ready for anything that college life throws at you. I have my faith in you, you will ace the time. Congratulations and good luck in college."

- Dr. V.M.Blessy Geo., MSc., Ph.D., Managing Director

"Come to learn and go to serve." As a Principal of Rohini College of Engineering and Technology, I feel very much excited and proud that my students of Computer Science have prepared a newsletter. RCET facilitates to pave the way for the development of both mental and physical health of students. All the teachers are qualified and experienced. They teach us with great care and love. I wish you the best of luck as you head off to college. Changing the world starts here, so make it count. Good luck with your studies! - Dr.R.Rajesh.,ME.,Ph.D., Principal



PRINCIPAL'S MESSAGE



The Newsletter is presenting a glimpse of the growth of the institution on many fronts. Our students and faculties have performed exceedingly well and competent enough in all the fields. Beyond academics, the research activities are being conducted. We give students the advantage to lead themselves in any direction they want to proceed in life. Our aim is to create opportunity to the students to become more independent and to take on new responsibilities. "The first stair to failure is ignorance. Keep learning by leaning on the lap of information and you'll take the lead!

HOD'S MESSAGE -Mrs.R.Sahila Devi, HOD





#### CSE PRESIDENT'S MESSAGE

I find immense pleasure in sharing my thoughts on Computer Science department of or student, we always had our privilege in our performance and participation that could havihout the most supportive Head of Department and Staff members of our department with fearless wings. All the Best, friends...!

- Mr. R. Sudar



### **EDITORS MESSAGE**









Life is filled with obstacles along the way to our future and it is our responsibility to ove extremely proud to work for and be a part of our amazing department's newsletter. We all and working together as a team. Our department always achieves what it means to achie that. We hope we can contribute more of our work to our department and we hope that this year will be a better year than the last, for all of us. Wishing every one of you bright minds, a successful future ahead.

## WEBINARS ORGANIZED BY THE DEPARTMENT

# **®ROHINI** MENT OF COMPUTER SCIENCE AND EN Y 4.0

### Seminar on Industrial Internet of Things & **Industry 4.0**

This seminar is about the industrial internet of things and also based on This seminar is about the industrial internet of things and also based on industry 4.0, organized by the CSE department. It was conducted on 14-03-2022 through online mode. Dr. T Subbu Lakshmi, IT Professor of Francis Xavier Engineering College was the speaker of the seminar. Our beloved principal of RCET, Dr. R Rajesh was the patron of the seminar. Shri. K Neela Marthandan, Chairman of RCET, Dr. N Neela Vishnu, Pro Chairman of RCET and Dr. V M Blessy Geo, Managing Director of RCET were the chief patrons of the seminar. Mrs R Sahila Devi, Head of Computer Science Department was the convenor of the seminar. Dr. A Lourdes Mary, Mrs. R Meenakshiammal and

Mrs A Haseena Beevi, Asst Professors of Computer Science Department were the co-ordinators for the seminar-The Industrial internet of things or HoT refers to interconnected sensors, instruments, and other devices networked together with computers' industrial applications, including manufacturing and energy management. This connectivity allows for data collection, exchange, and analysis, notentially This connectivity allows for data collection, exchange, and analysis, potentially facilitating inprovements in productivity and efficiency as well as other economic benefits. The IIOT is an evolution of a distributed control system or DCS that allows



a higher degree of automation by using cloud computing to refine and optimize the passession was very informative and helpful for our students. cess controls. This webit

#### **Machine Learning**



This webinar was about the basics and concepts of machine learning in computers, organized by the CSE department. It was conducted on 11-03-2022 through online mode. Dr. Ram Prasad K, Asst Professor, Department of CSE of Shiv Nadar University, Chennai. Shri. K Neela Marthandan, Chairman of RCET, Dr. N Neela Vishnu, Pro Chairman of RCET, Dr. V M Blessy Geo, Managing Director of RCET were the chief patrons of the webinar.

Our beloved principal of RCET, Dr. R Rajesh was the patron of the webinar. Mrs. R Sahila Devi, Head of



Our beloved principal of RCET, Dr. R Rajesh was the patron of the webinar. Mrs. R Sahila Devi, Head of Computer Science Department was the convenor of the webinar. Mrs. R Meenakshianmal and Ms A Haseena Beevi were the co-ordinators of the seminar.

Machine learning or ML is the study of computer algorithms that can improve automatically through experience and by the use of data. It is seen as a part of artificial intelligence. Machine learning algorithms build a model based on sample data, known as training data, in order to make predictions or decisions without being explicitly programmed to do so. Machine learning algorithms are used in a wide variety of applications, such as in medicine, email filtering, speech recognition, and computer vision, where it is difficult or unfeasible to develop conventional algorithms to perform the needed tasks. This webinar was informative, it helped our students learn more about the basics of machine learning and its concepts. about the basics of machine learning and its concepts.



### **Cyber Security Threats**

This webinar was about the threats we face from cyber crime and how to overcome them with the help of cyber security. It was conducted on 15-03-2022 through online mode. Dr. P Mano Paul, Associate Professor of CSE department, Alliance University, Bangalore was the speaker of the webinar. Our beloved principal of RCET, Dr. R Rajesh was the patron of the seminar. Mrs. R Sahila Devi, Head of Computer Science Department was the convenor of the seminar. Dr. A Lourdes Mary, Mrs. R Meenakshiammal and Ms A Haseena Beevi, Asst Professors of Computer Science Department were the co-ordinators for the seminar.



A cyber or cybersecurity threat is a malicious ct that seeks to damage data, steal data, or disrupt digital life in general. Cyber threats disrupt digital life in general. Cyber threats include computer viruses, data breaches, Denial of Service attacks, and other attack vectors. Cyber threats also refer to the possibility of a successful cyber attack that aims to gain unauthorized access, damage, disrupt, or steal an information technology asset. This webinar really helped out our students in tackling the obstacles of cyber security threats like hackers, ers, etc.

## WORKSHOPS CONDUCTED BY THE DEPARTMENT



### Linux Programming Workshop

The Linux Programming workshop was conducted for second year students, on 24-03-2022 and 25-03-2022. In this workshop, students, on 24-03-2022 and 25-03-2022. In this workshop, students were taught about how to operate and use Linux operating system and how to do several operations in this operating system, such as creating files and folders, creating and editing documents and how to use Linux GUI.Linus Torvalds first encountered the GNU Project in 1991, after another Swedish-speaking computer science student, Lars Wirzenius, took him to the University of Technology to listen to free software guru Richard Stallman's speech.

Torvalds used Stallman's GNU General Public License version 2 (GPLv2) for his Linux kernel. Linux is a family of open-source Unix-like operating systems based on the Linux kernel. It is usually used in multitasking and for multi users. Torvalds used Stallman's GNU General Public License version 2 (GPLv2) for his Linux

and for multi users. Torvalds used Stallman's GNU General Public License version 2 (GPLv2) for his Linux kernel. Linux is a family of open-source Unix-like operating systems based on the Linux kernel. It is usually used in multitasking and for multi users. Linux is much more lighter and faster than Windows, but it has less features compared to that of Windows. So in markets, Windows play a much bigger role than that of Linux. A number of Java virtual machines and development kits run on Linux, including the original Sun Microsystems JVM HotSpot, and IBM's J28E RE, as well as many open-source projects. Our students also learnt that the user interface, also known as the shell, is either a command-line interface or CLI, a graphical user interface of GUI, or controls attached to the associated hardware, which is common for embedded systems. For desktop systems, the default user interface is usually graphical, although the CLI is commonly available through terminal emulator windows or on a separate virtual

console. CLI shells are text-based user interfaces, which use text for both input and output. The dominant shell used in Linux is the Bourne-Again Shell or bash, originally



console. CLI shells are text-based user interfaces, which use text for both input and output. The dominant shell used in Linux is the Bourne-Again Shell or bash, originally developed for the GNU project. Most low-level Linux components, including various parts of the userland, use the CLI exclusively. The CLI is particularly suited for automation of repetitive or delayed tasks and provides very simple inter-process communication. The server distributions might provide a command-line interface for developers and administrators, but provide a custom interface towards end-users, designed for the use-case of the system. This custom interface is accessed through a client that resides on another system, not necessarily Linux based. Besides the Linux distributions designed for general-purpose use on desktops and servers, distributions may be specialized for different purposes including computer architecture support, embedded systems, stability, security, localization to a specific region or language, targeting of specific user groups, support for real-time applications, or commitment to a given desktop environment.



### Value Added Course

The Value Added Course workshop The Value Added Course workshop was conducted for final year students, from 23-02-2022 to 07-03-2022. To bridge the gap between the academic and industry need, Value Added Courses or VAC are conducted regularly in our College. It is important for higher education institutions to supplement the curriculum to make students better prepared to meet industry demands as well as develop their own interests and aptitudes.

The Value Added Course workshop teached our students about machine learning, especially in Python. Machine learning is the kind of programming which gives computers the capability to automatically learn from data without being explicitly programmed. This means in other words that these programs change their behaviour by learning from data. In this workshop, students learnt that machine learning means that an algorithm learns automatically. This means that it is capable of extracting the necessary knowledge from given data automatically. The goal is to make predictions on new, unseen data. There is another way of putting it: In traditional enteristic decision-making algorithms, the programmers set the rules according to which the decisions are made. With machine learning, this is algorithms, the programmers set the rules according to which the decisions are made. With machine learning, this is done independently by the program without interference from human beings. At the heart of machine learning is the concept of automating decision making from data without the user specifying explicit rules on how to make that decision. In the case of emails, the user does not provide a list of words or features that spam an email. Instead, the user provides examples of spam and non-spam emails that are marked as such. This is the so-called learning set. The goal of a machine learning model is to predict new, previously invisible data. In a real application, we are not

interested in marking an already marked email as spam or not. Instead, we want to make life easier for users by automatically classifying new incoming emails. The data is presented to the alcowithm wholls use a tray discountered. the algorithm usually as a two-dimensional array or matrix of numbers. Each data point, array or matrix of numbers. Each data point, also known as a sample or training instance, that we want to either learn from or make a decision on is represented as a list of numbers, a so-called feature vector, and its containing features represent the properties of this point. This workshop was really informative for the final year students.



final year students.

A core objective of a learner is to generalize from its experience. Generalization in this context is the ability of a learning machine to perform accurately on new, unseen examples/tasks after having experienced a learning data set. The training examples come from some generally unknown probability distribution (considered representative of the space of occurrences) and the learner has to build a general model about this space that enables it to produce sufficiently accurate predictions in new cases. This approach and objective motivates our students in learning more about the machine learning basics and concepts in this Value Added Courses workshop.

### INTERNSHIP & INPLANT TRAINING

Jesu Raj .C

- Ravi Kumar

- Kavin Karthik

- Shan Rathish

- Marin Allwin

- Shan Mon

- Madhava Naresh

- Dhibisha

- Catherine Rishme

Catherine Rishma

Garuna Vishnu Hawra Singh

#### INDIANT TRAINING FOR THIRD YEARS

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#### Codebind Technologies

CodeBind Technologies is one of the intership companies our students were

Codebind Technologies is one of the intership companies our students were offered in. It offers best Internship for Computer Science Engineering, with project and free workshop and free placement training. CodeBind Technologies is ensuring to full fill your expectation than providing real time training to all engineering streams. They are upgrading the latest technologies in a periodical manner and that are delivering to the students on swiftly. This Implant Training was conducted by CodeBind Techno-

Implant Training was conducted by CodeBind Technologies, from 05-03-2022 to 09-03-2022. This implant training teached
the students about the basics and concepts of web development. Web
development is the work involved in developing a website for the Internet or an intranet or
a private network. Web development can range from developing a simple static page of
plain text to complex web applications, electronic businesses, and social networks services.

A more comprehensive list of tasks to which Web
development commonly refers, may include Web



A more comprehensive list of tasks to which Web development commonly refers, may include Web engineering, Web design, Web content development, client liaison, client-side/server-side scripting, Web server and network security configuration, and e-commerce development. They provide hands-on training by the experienced professionals from the reputed industries of MNCs like TCS, HCL and BSNL. Web development may be a collaborative effort between developing a simple single static page of plain text to complex web applications, electronic businesses, and social network services.

Group of Students Completed Training in Codebind Technologies

# SRISHTI INNOVATIVE

#### Srishti Innovative

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SRISHTI INNOVATIVE

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Srishti Innovative is one of the implane training companies our students tools part in. It is a leading, Technology Services Company for Web, Mobile and Solutions.

They are a Deloitte Technology Fast 50 India Company for 2014 and rank among Deloitte Technology Fast 500 APAC 2014 and 2014 Red Herring Top 100 for Asia. Some of the 2nd year students had their inplant trainings done in Srishti Innovative Srishti Innovative This inplant training teached our students about the basics and concepts of Python programming. Our students mentioned that this inplant training about Python was really helpul and informative for them, getting to know more about Python recramming. Python programming

> • Abbiiith A Have Completed Inplant Training in Rever Tech IT Solutions



Sneha Suba Sree Abisha Annie Brissy Pooja Alfia • Kalai Mathi

Abimanyu

Students list completed Training in Shrishti Innovative

- •J Archa
- S Archana
- ●S Anugraha ●Rahul R Nair
- B Harikrishnan
- •S Janakiraman
- R J Arjun
  Alex Thomas
- K P Jithamithra

# Revertech IT Solutions

Thits Technologies

Revertech IT Solutions is one of the inplant training companies our students took part in. It is a budding editech startup company that provides various services such as as online and offline internships, workshops, placement training, project support and faculty training. One of the 2nd year students had his implant training done in Revertech IT Solutions.

#### Info-tech

Info-tech
Infotech is a premier provider of IT courses training across Kerala. They offer true competency-based and job oriented programs for especially college students who wish to enhance their IT skills. In this inplant training, they teached one of our students about the basics and concepts of MS Office and how to use it.

Info-tech

Obhanuja D Have completed for Implant Training in Info-tech.



## Luminar Technolab





Luminar Technolab Luminar Technolab Luminar Technolab is one of the intership companies our students were offered in. Luminar Technolab is a No.l Software Training Institute in Kochi, offering you Job Oriented courses on Data Science, Data Analytics, Machine Learning. Python, Big Data & Other Certified IT programs. Their mission is to provide 100% placements to students those who enroll for our specialised courses. Their placement assistance starts with Resume preparation, Mock Interviews by real working professionals, aptitude test training & interviews. We are focused on providing advanced level software training Big Data Training, Hadoop Training, Data Science Training, Python Training, Machine Learning Training, Selenium Training in Cochin, Kerala.

Training, Machine Learning Training, Selenium Training in Cochin, Kerala.

This inplant training was conducted by Luminar Technolab, from 07-03-2022 to 11-03-2022. This inplant training the students about the basics and concepts of Python programming. Python is a high-level, general-purpose programming language. Its design philosophy emphasizes code readability with the use of significant indentation. Its language constructs and object-oriented approach aim to help programmers write clear, logical code for smalland large-scale projects. This inplant training was very helpful for the students, teaching them how to use Python easily and effectively and about its basics and concepts. about its basics and concepts.

#### INPLANT TRAINING FOR SECOND YEARS

# SHIRO

#### Shiro Software Solutions

Shiro Software Solutions is one of the inplant training companies our students took part in. It is one of the leading Web designing Company in Nagercoil. They offer services such as Website design, Web development, Web design services, Website redesign services, E-commerce web solutions, etc. Most of the 2nd year students of the department had their inplant trainings done in Shiro Software Solutions.

The students were taught about the basics and concepts of web development. Web development is the work involved in developing a website for the Internet or an intranet or a private network. Web development can range from developing a simple static page of plain text to complex web applications, electronic businesses, and social network services. A more comprehensive list of tasks to which Web development commonly refers, may include Web engineering. Web design, Web content development, client liaison client-side/server-side scripting, Web server and may include Web engineering, Web design, Web content development, client liaison, client-side/server-side scripting, Web server and network security configuration, and e-commerce development. They were also taught and explained about the security and privacy matters of web development is its security and how we make it more secure and private. Web development takes into account many security considerations, such as data entry error checking through forms, filtering output, and encryption. Malicious practices such as SQL injection can be executed by users with ill intent yet with only primitive knowledge of Web development as whole. Scripts can be used to exploit Web sites by granting unauthorized access to malicious users that try to collect information such as email addresses, passwords and protected content like credit card environment on which the scripting language



Malicious practices such as SQL injection can be exceeded by users with ill intent yet with only primitive knowledge of Web development as a completed his inplant training here. Inits Technologies, a global business and technology solutions provider, has been in the industry for the past 17 years offering an array of integrated services that combine technology, design and management consulting practices with deep sector expertise. Their professional services help clients, who are leaders in private sectors, resource transform their business, operations and technology models for the digital era.

Enterprise resource planning or ERP is the integrated management of main business processes, often in real time and mediated by software and technology. ERP is usually referred to as a category of business management software environment on which the scripting language of the scripting language and interpret data from many business activities. A human resources management system or HRMs a form of Human Resources software that combines a number of systems and processes to ensure the easy management of human resources, business processes and data. Human resources management, and tracking competency and training records.

# ACHIEVEMENTS OF 2022

Second Year Students Achievements



Completed a C Programming course in International Conference on Recent Engineering and Techn (ICRET).



Completed a Python/Data Science course in ReverTech IT Solutions, Kerala.



▶ Completed Programming, Data Structures and Algorithms using Python courses in NPTEL.



► Completed Programming, Data structures and algorithm using python. Completed Programming, Data structures and algorithm using python.



► Completed Object Oriented Programming (OOPS) course in STUCOR Learn.



▶ Got the first place in Paper Presentation in the symposium attended at PSN Institute of Techn

⇒ Got the Second prize in Paper Presentation in the symposium attended at VV College of Engine

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## Third Year Students Achievements



- Completed Introduction to Operating Systems in NPTEL
- Completed Introduction to the Internet of Things in Gyna
- Reshmi

Completed a Java Programming Boot Camp course in ED SPREAD.



- Got the first place in Paper Presentation in the symposium attended at PSN Institute of
  - Technology and Science.

    ⇒ Got the Second prize in Paper Presentation in the symposium attended at VV College of Engineering.
  - ⇒Got the First prize in Ouiz in the symposium attended at VV College of Engineering.



⇒Got the first place in Paper Presentation in the symposium attended at PSN Institute of Technology and Science.



- ⇒ Internship Training and Development of UI and UX design course in NSIC.
- ⇒ Got the first place in Debugging in the symposium attended at PSN Institute of Technology and Science.

   ⇒ Prepare Data for Exploration course in Coursera.
- Foundations: Data, Data, Everywhere course in Coursera.
- ⇒ Convolutional Neural Networks in Coursera.
   ⇒ Process Data from Dirty to Clean course in Coursera. 
   ⇒ Web development, Machine Learning, Deep Learning and Big Data Hadoop course in
   Udemy
- ⇒ Neural Networks and Deep Learning in Deep Learning.ai.
   ⇒ Google Analytics course for Beginners in Google Analytics Academy.



⇒Completed a Python 101 for Data Science course in Cognitive Class.ai.



- Completed Responsive Web Design course in freeCodeCamp.org.
- Completed the assessment test for the skill CSS in HackerRank.

#### **Final Year Students Achievements**





