



Department of Information Technology



NewsLetter

Academic Year
(2021- 2022)



KCG
COLLEGE OF TECHNOLOGY



Department of Information Technology

News Letters
Academic Year
2021-22



VISION OF THE INSTITUTE

KCG College of Technology aspires to become a globally recognized center of excellence for science, technology & engineering education, committed to quality teaching, learning and research while ensuring for every student a unique educational experience which will promote leadership, job creation, social commitment and service to nation building.

MISSION OF THE INSTITUTE

- Disseminate knowledge in a rigorous and intellectually stimulating environment.
- Facilitate socially responsive research, innovation and entrepreneurship.
- Foster holistic development and professional competency.
- Nurture the virtue of service and an ethical value system in the young minds

VISION OF THE DEPARTMENT

The department of Information Technology aspires to become a globally acclaimed center of excellence offering quality education and enabling innovative research in Information Technology department by producing competent Information Technology graduates to contribute towards nation building.

MISSION OF THE DEPARTMENT

- Impart knowledge of fundamentals as well as emerging trends in Information Technology
- Inculcate innovative and entrepreneurial abilities as well as ethical values among the students
- Establish computing facilities and research activities to enhance the knowledge
- Enhancing competency of faculty with the advanced technologies in Information Technology



PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The graduates of B.Tech. (Information Technology) will

PEO 1	Outstand as technically skilled professionals in Information Technology and relevant sector.
PEO 2	Devise, Implement and Deploy software solutions for computational problems.
PEO 3	Build software solutions for the challenging problems in industry and research.
PEO 4	Manifest the ethical values and exhibit social responsibility.

PROGRAMME OUTCOMES (POs)

The graduates of B.Tech. (Information Technology) will be able to

PO 1	Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2	Problem Analysis: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	Design/ Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO 4	Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO 5	Modern Tool Usage: Create, select, and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO 6	The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO 7	Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.



PO 8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO 9	Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO 10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO 11	Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO 12	Lifelong Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAMME SPECIFIC OUTCOMES (PSOs)

The graduates of B.Tech. (Information Technology) will be able to

PSO 1	Design system to solve complex IT related problems using algorithm analysis, database technology, multimedia, web design, networking and principles of Software Engineering, to face the challenges in corporate and industries.
PSO 2	Communicate and function efficiently as an individual and as a member or leader in multidisciplinary teams in software development process.
PSO 3	Identify the need for sustainable development in software industries and follow the professional code of ethics.

COMPENDIUM

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KCG College of Technology - An Overview

KCG College of Technology was founded in 1998 to fulfil the Founder – Chairman Dr. K. C. G. Verghese’s vision – “To Make Every Man a Success and No Man a Failure”. It is affiliated to Anna University, Chennai and Approved by AICTE, New Delhi. KCG is an ISO 9001:2015 Certified Institution and is accredited by NBA.





AICTE-CII Best Industry Linked Technical Institute 2018: KCG is One Among the Top 21 Institutes in Platinum Category for all 5 Disciplines

KCG College of Technology received the “Prime Time Institution of the year 2019 (Social Welfare) Award”



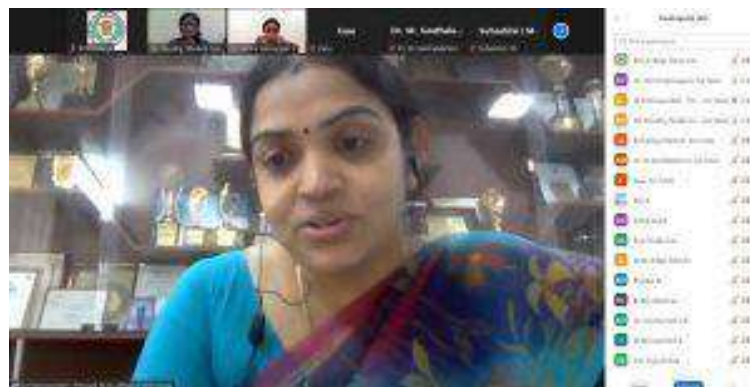
Trophy and certificate for the Prime Time Institution of the year 2019 (Social Welfare) Award



**Principal Dr. G. Prabhakaran receiving the award from Brad Hogg, Australian cricket player and
Mugdha Godse, Bollywood actress**

Suicide Gatekeeper Training Program

One in every 100 deaths worldwide is the result of suicide. It can affect every one of us. Each and every suicide is devastating and has a profound impact on those around them. The world we live in is a highly competitive world. This competition pushes people into high levels of stress and anxiety which leads to depression. The pandemic has taken a TOLL on people's physical health and mental health. The online classes have widened the gap between the teachers and students. The rate of suicide is very high at these stages and that too between the ages of 15 – 29.



However, by raising awareness, reducing the stigma around suicide and encouraging well-informed action, we can reduce instances of suicide. **World Suicide Prevention Day** is an opportunity **to raise an awareness** of suicide, to promote actions that will reduce the number of suicides and suicide attempts and to handle any situation

courageously. **International Association for Suicide Prevention (IASP)** announces the new World Suicide Prevention Day theme for 2021 – 2023 as “CREATING HOPE THROUGH ACTION”.



Teachers’ Day Celebration 2021

Dr Radhakrishnan took the office of the second President of India in 1962. His students approached him to celebrate September 5 as a special day. Dr Radhakrishnan instead made a request of them to observe September 5 as Teachers’ Day, **to recognise the contribution of teachers to the society.**





Teachers' Day Celebration 2021

Mental Wellness Awareness Campaign

The World Mental Health Day is observed on 10th October. The overall objective of World Mental Health Day is to raise an awareness of mental health issues around the world and to mobilize efforts in support of mental health.



The WFMH President Dr Ingrid Daniels has announced the theme for World Mental Health Day 2021 as 'Mental Health in an Unequal World'. Inequalities due to race and ethnicity, sexual orientation and gender identity, and the lack of respect for human rights, including for people living with mental health conditions. Such inequalities have an impact on people's mental health.



Launch of Skill Development Courses



KCG tech under the banner of Hindustan Engineering Training Centre in association with Tamil Nadu government got empanelled to conduct free training and placement for unemployed youth of Tamil Nadu. It was a landmark moment for us at KCG, we inaugurated a KCG Tech Skill Development Centre that will serve as the home to the Skill oriented Courses in association with Tamil Nadu Skill Development Corporation. This program is aimed at training candidates for the job of “Software Engineer” and “Web Developer” in the ‘IT-ITeS’ Sector/Industry.

International Transgender Day of Visibility

International Transgender Day of Visibility (TDOV) is an annual event occurring on 31st March dedicated to celebrating transgender people and raising awareness of discrimination faced by transgender people worldwide, as well as a celebration of their contributions to society. The day was founded by transgender activist Rachel Crandall of Michigan in 2009 as a reaction to the lack of LGBT recognition of transgender people. The first International TDOV was held on March 31, 2009.



Transgenders worldwide face gender discrimination and do not gain access to public spaces, health care, family, employment, education etc. Generally they face numerous roadblocks in gaining access to the above and hence they cover their identity. Most often when their identity is revealed they are denied of opportunities. Diversity and inclusion training reduce biases and bring in a perception change to create an equitable society.

The **Transgender Day of Visibility (TDOV)** was observed at KCG College of Technology on 31st March, 2022 to create an awareness amongst KCG staff and students to accept and support their living in the society like any other human being.

Ugadi 22

Ugadi'22 was celebrated on 2nd April 2022 in the Fashion Technology (FT) Block Seminar Hall of our campus, a huge number of participants have registered for this event. It exhibits the hidden talents among the students who have participated in Ugadi'22 and the performance given by the students are more energetic and outstanding



Ugadi'22 Celebration -2nd April 2022 at Fashion Technology Block

. During this event, two competitions were conducted (i) Rangoli Competition – which brings out the traditional culture and (ii) pachadi cooking competition –which is the highlight of this ugadi'22.

Empowering the Youth

Ms Madhura Das Gupta Sinha – Founder & CEO Aspire for Her addressed our students and spoke about all the initiatives and programs that they run for the benefit of the students. The students were found to be more enthusiastic and their queries were answered by Ms Madhura. This collaboration will empower our young male and female engineers to enter and stay in work place with all the necessary skills required to be more inspiring and aspiring.



Suicide Prevention Campus Crisis Intervention Protocol

Seminar on “Suicide Prevention Campus Crisis Intervention Protocols” was held on 12th May 2022, 10am – 11:45am at F14 Seminar Hall for KCG faculties.

Dr. Rani George, Professor of Criminal Justice Statistics at Albany State University (ASU) in Albany, Georgia, USA was the resource person. Dr.DeivaSundari P, Principal, KCG College of Technology presided over the seminar and greeted the Guest of Honour and the faculty members who attended the seminar. Ms. Tephilla Joice P, welcomed and introduced Speaker to the gathering.



x

Power Up with LinkedIn- Empowering the Youth -Series #1

LinkedIn, the world's largest professional network with more than 830 million members in more than 200 countries and territories worldwide. It brings together the world's leading professional cloud and the world's leading professional network and creates economic opportunity for every member of the global workforce and connects the world's professionals to make them more productive and successful.

As a part of MOU with Aspire For Her (AFH), KCG College of Technology in collaboration with AFH, conducted a session on creating a strong LinkedIn profile, for KCG students. The resource person Mr Ramdas Kannan – Manager, APAC Growth Partnerships LinkedIn, briefed our students as how to create a strong profile on LinkedIn to attract the recruiters. He spoke on building a profile and a brand to get noticed, how to apply for jobs,

skills required to get a job. He spoke as how to close their network gap by connecting to alumni, telling their story on profile as their interests / hobbies, following companies, adding competencies and certifications.



Department Highlights

- Department of Information Technology conducted CODE RELAY - Problem solving using Data Structures on 23 April 2022. Problem solving is a key aspect for building any new product or even to debug an existing code on a real time basis. 32 teams from the departments of IT, CSE and AI&DS participated in the competition.
- The prize winners were: st I Prize: Team Techno Crats - Belgin Jarosh. S, S. P Baskar and S. Ajay Prasad of IT.
- Awareness Programme on Road Safety to Class IX students of Govt. School, Karapakkam by Department of Information Technology.

ACADEMIC ACHIEVEMENTS

The Information Technology department of the KCG College of Technology has grown leaps and bounds in terms of the technical collaboration and technological up gradations. This is evident in the humungous increase in the number of activities attended and co-ordinated by both the students and staff members of the department. Students have indeed made their presence felt in different arenas of Information Technology in various competitions.

With the vision to become a globally acclaimed centre of excellence offering quality education and enabling innovative research, the department of Information Technology, KCG college of Technology under the leadership of Dr. J. Frank Vijay and with the cooperation of the dedicated team of well-qualified faculty members are constantly striving to improve the academic standards. The Department which is a home for 138 students has excellent infrastructure in terms of laboratories, classrooms, seminar hall etc. The department had a tremendous achievement of filing five patents in the last academic year. **The department was ranked one among the Nation"s TOP 65 in AICTE – CII Survey.**

The department has equipped itself with indigenous mentoring programme which keeps a tab on the performance and improvement of students in various tests and addresses other curricular and extra-curricular needs of the students through 24x7 faculty-student interaction even using the WhatsApp platform. This is in addition to the institute promoted counselling programme where the teachers act as vital support mechanism for the students. Over the years such small group interaction has proved effective and is the kingpin factor which underscores the excellent performance of the department. The department always stays in touch with the parents. The messaging service is utilized for immediate communication regarding late arrival of students, fee default, etc. The teachers with the adequate help from IT secretary make it a point to communicate to the parents about the performance of their wards on a regular basis.

To cope up with the emerging challenges, various add on courses and other activities are offered to students apart from the curriculum syllabus specified by the Anna University. —Campus Connect|| – an INFOSYS Industry – Academia partnership program was conducted for students by the department faculty members.

Examinations were conducted on a regular basis to evaluate the knowledge level of students. Remedial programs were categorically designed to bridge the gap between what a student knows and what he's expected to know. The department organized specific library

hours to facilitate the reading habits of the students. Such a measure had evidently improved the analytical skills of the students 'manifold.

Placement training was another cynosure of the department. The department was specifically keen in handholding the students to successful placement processes. The effort did not stop there. Continuous training was given even after the successful placements with the intention to make them excel in their respective organizations in future. Special hour was allocated for final year students and training on core subjects was given. As a result of all these activities and initiatives, the Department of Information Technology was able to pull out success both in academic and allied activities. The students of the department secured university rank consistently in all the previous years

Department Activities

The Department is devoted to foster the fundamental principles and understanding of technology to enhance the students 'basic knowledge of Engineering. Its objective was to provide value-based education to the budding scientists and engineers. Both the students and faculty members had great opportunities for participating and conducting various technical events. A nutshell of all those initiatives and activities are categorized and listed below:

Awareness programme on Cyber Security led by Dr. Aksham MD, Senior Data Scientist and Mr. Vigneshram Ramakrishnan Manjula, Data Analyst from Cyber Security Works, Chennai was th organised on 13 October 2022.



A awareness session on Software Testing Tools & Job Opportunities was organised on 24th September 2022. Ms. Stephy Anna Varughese, Automation Engineer, GAVS Technologies was the resource person.



Knowledge Augmentation Programmes

Faculty members:

Online Certification Programmes:

ICT Academy:

ICT Academy is an initiative of the Government of India in collaboration with the state Governments and Industries. ICT Academy is a not-for-profit society, the first of its kind pioneer venture under the Public-Private-Partnership (PPP) model that endeavours to train the higher education teachers and students thereby exercises on developing the next generation teachers and industry ready students.

Skill Tester provides a Training – Assessment – Certification model for ICT Academy Member Institutions to be a Skill tester partner and develop their own expert faculty for training and delivering Skill tester training programs to students in their respective colleges. This provides an opportunity for colleges to develop their own skill development capabilities.



NPTEL:

National Programme for Technology Enhanced Learning is a joint initiative from IITs and IISc to offer online courses and certification in various topics. Many of the faculty members of the department completed the courses which are equivalent to FDP programmes.

- Ms.Tina Susan Thomas completed the course on "Knowledge Management" in Elite category
- Mr. V.P. Sreekantha kumar completed the course "Programming in C" successfully.
- Ms. R. Adline Freeda completed the course "Software Testing" successfully.
- Ms. Krithikaa Venket completed the course "Introduction to Machine Learning" successfully.
- Mr.N.Baskar completed the course "Data Mining" successfully.
- Ms. A. Anju completed the course "Cryptography & Network Security" successfully.



Oracle Certified Java Associate:

1. Mr. Bharath Kishore.B., Nishanth.K.R. and Venkata Lakshmi.D.completed the course on oracle java certification course successfully.

Students:

To cope up with the emerging challenges, various add on courses and other activities are offered to students apart from the curriculum syllabus specified by the Anna University. It was planned to conduct the value added programmes as four verticals to the 2017 -2021 batch in association with the CSE department.

Vertical 1 - Full Stack Developer

SPOC: - Dr. R. Anand, Associate Professor, IT Department

Resource Persons:-

1. Dr. R. Anand, Associate Professor, IT Department
2. Dr.S. Sankar, Associate Professor, CSE Department
3. Ms. R. Adline Freeda, Assistant Professor, IT Department
4. Ms. S. U. Shiny, Assistant Professor, CSE Department

Vertical 2:-CISCO CERTIFIED NETWORK ENGINEER

SPOC:- Dr. R. Dhanalaksmi, Professor, CSE Department

Resource Person :

1. Dr R Dhanalakshmi, Professor, CSE Department.
2. Dr Emilin Shini, Professor, CSE Department
3. Ms. A. Anju, Assistant Professor, IT Department
4. Mr T Deendayalan, Assistant Professor, CSE Department

Vertical 3:-Big Data Analytics & Machine Learning.

SPOC: - Ms.Soumya S

Resource Persons:-

1. Mr. V.P. Sreekantha Kumar, Associate Professor, IT Department
2. Mr. Prabhakaran, Assistant Professor, CSE Department
3. Ms.S. Soumya, Assistant Professor, CSE Department
4. Ms. Minju P George, Assistant Professor, CSE Department
5. Ms. Sudha, Assistant Professor, CSE Department

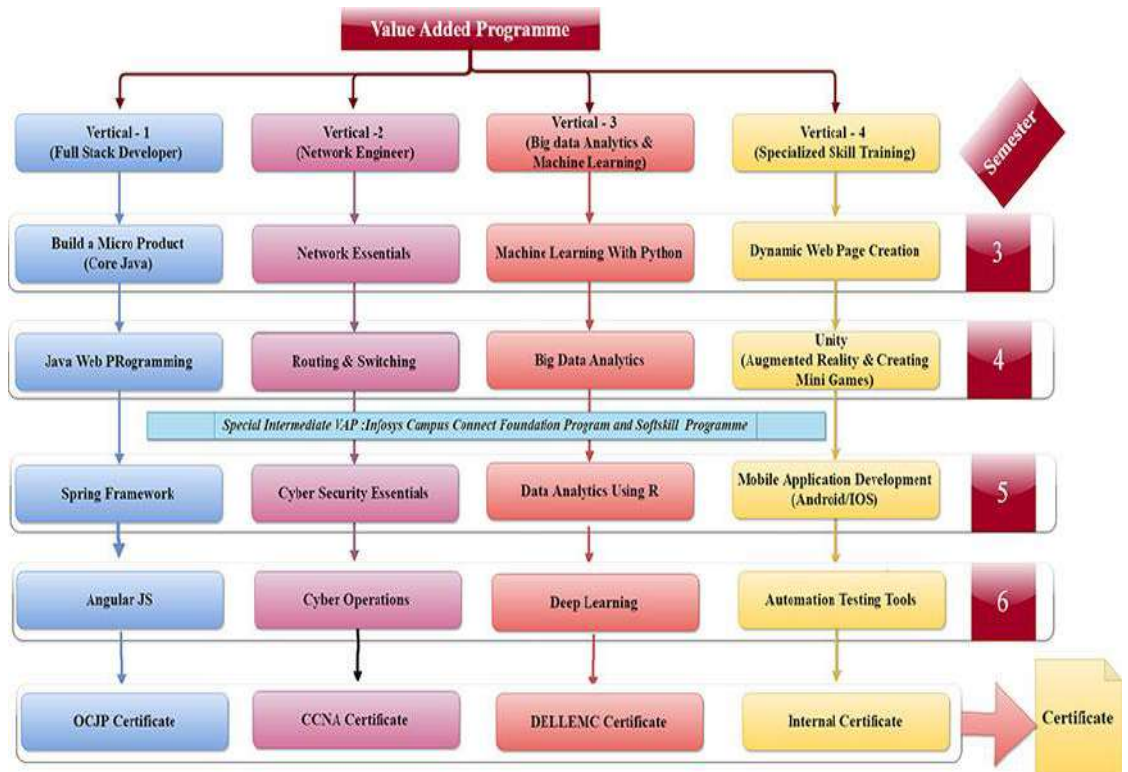
Vertical 4: - Animation & Web Designing

SPOC: - Dr. M. Baskar

Resource Person:-

1. Dr. M. Baskar, Assistant Professor, IT Department

2. Mr. S. Bairavel, Assistant Professor, CSE Department
3. Ms. Tina Susan Thomas, Assistant Professor, IT Department
4. Mr. Radhakrishnan, Assistant Professor, CSE Department



Software Testing Fundamentals, AWS, Angular JS - Value Added Course:-

Software Testing Fundamentals (STF) is a platform to gain (or refresh) basic knowledge in the field of Software Testing. Ms. R. Adline Freeda and Ms. Divya M conducted a Value Added Programme on Software testing for the pre – final year students. Since it being a fundamental course, all the students of the III yr were involved in the value-added program. The students were split into two batches. The Course was scheduled for 3 hours per week for each batch in both the labs of IT Department. It was a 45 hrs value added course in which the basic concepts were covered. A manual was given to each individual student covering all the topics taught.

CERTIFICATE OF PARTICIPATION

This certificate is presented to

Prof. Tina Susan Thomas

KCG College of Technology

for participating in **Train The Trainer Program on Java Programming**
conducted by **Infosys Limited** from **July 5 – July 9, 2021**



Thirumala A
Head - Education, Training & Assessment



HINDUSTAN
INSTITUTE OF TECHNOLOGY & SCIENCE
(DEEMED TO BE UNIVERSITY)



Two Weeks AICTE Sponsored Online FDP(Phase-II)

organized by
School of Computing Sciences
in association with

Machine Intelligence and Data Analytics Research Centre

Certificate of Participation

This is to certify that Mr/Ms MRS.R.ADLINE FREEDA, ASSISTANT PROFESSOR

KCG COLLEGE OF TECHNOLOGY

has participated and

successfully completed a **Two-Week AICTE Sponsored Online FDP(Phase-II)**

on **Artificial Intelligence & Ambient Intelligence** between 15th to 27th February 2021.

Dr. John Aravindhar
Coordinator

Dr. Angelina Geetha
HOD SCS

Dr. Pon Ramalingam
Registrar

Technical Clubs

Engaging students in their first year of college is critical to student retention, as their first-year experiences can set the tone for the remainder of their educational careers. Today, millennials make up a large part of the student community, and the way in which these students communicate has changed. For millennials, it's all about mobile technology, including smart devices and apps, challenging higher education to find new ways to engage with our students. To make the students industry- ready by enlightening their technical skills, various clubs are initiated by the department like mobile app club, women coding club and women in technology forum.

Mobile App Club

The Mobile app club was inaugurated by Mr. B.Nikesh Kumar, Technical Staff, ZOHO Corp on 22nd Sep 2020 at Watts Humphrey Lab of KCG College of Technology for the first year students. In his address he pointed the applications of Mobile Apps in diverse fields and also stressed about commercial hybrid applications development. His speech was an eye opener for the students who were just beginners to App development.



Women's Coding Club

KCG WOMEN'S CODING CLUB is an exclusive club for women to learn coding and associated skills. It is a platform to create an awareness and interest among girl students on programming.

Session : Build2Learn

The first event Build2Learn session for the girl students was conducted on 14th July 2020 at KMC auditorium. The resource persons shared the motto of the program- Build2Learn is an initiative by a group of volunteers to help people learn to programme by building useful micro-products- Build to Learn and Learn to Build. Around 36 students had participated in the session. The students have been grouped into a different category and they started working as a group in different domains like web applications, basics of Python programming and Android Applications. The volunteers helped each group then there and explained the basic concepts of the applications.



Build2Learn Team Introduction Session



Students Exploring



Ashish Cherian (Build2Learn Volunteer) Honoring the Speakers helping the students

Research Activities

Publications By Faculty Members

1. N. M, P. N, Priyanka and P. Sambandam, "Speech Emotional Recognition Using CNN Algorithm," 2021 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2021, pp. 1-5, doi: 10.1109/CONECCT52877.2021.9622714.
2. Nayak, B., Thota, N. P., Kumar, J. D., Dhanalakshmi, R., & Bairavel, S. (2021, July).
3. Currency Detector for Visually Impaired using Machine Learning. In 2021 International Conference on System, Computation, Automation and Networking (ICSCAN) (pp. 1-5). IEEE.
4. Joy, M. R., Bairavel, S., & Dhanalakshmi, R. (2021, July). Implementing QR code–based contact tracing framework. In 2021 International Conference on System, Computation, Automation and Networking (ICSCAN) (pp. 1-6). IEEE.
5. Swathi, S., Saranya, E., Prabakaran, R. M., Kumar, M. S., & Bairavel, S. (2021, July).
6. Virtual Health Assistant. In 2021 International Conference on System, Computation, Automation and Networking (ICSCAN) (pp. 1-4). IEEE.
7. Ram, R. S., Murthi, S. S., Narayanan, R. S., Venkatesh, R., Dhanalakshmi, R., & Bairavel, S. (2021, August). Application to Filter Unwanted Messages from OSN User Walls. In 2021 International Conference on Simulation, Automation & Smart Manufacturing (SASM) (pp. 1-5). IEEE.
8. Anju, A., Abilash, M. R., Balaji, V., & Darshan, J. S. (2021, October). Third Vision for Safeguarding Women with A Live Surrounding Update using Deep-Learning for Computer Vision. In 2021 6th International Conference on Signal Processing, Computing and Control (ISPCC) (pp. 288-292). IEEE.
9. Anand, R., Aneehsa, D. M. S. M., & Thanuja, R. K. V. (2021, October). Breast cancer prediction in machine learning techniques using blockchain. In 2021 6th International Conference on Signal Processing, Computing and Control (ISPCC) (pp. 293-298). IEEE.
10. Anand, R., Kareem, S. F., Mubeen, R. M. A., Ramesh, S., & Vignesh, B. (2021, October). Analysis of heart risk detection in machine learning using blockchain. In 2021 6th International Conference on Signal Processing, Computing and Control (ISPCC) (pp. 685-689). IEEE.

11. Rohit, S., & Bhaskar, N. (2021, December). Currency Identifier for Visually Impaired People. In *International Conference on Futuristic Communication and Network Technologies* (pp. 445-452). Singapore: Springer Nature Singapore.
12. Bhaskar, N., Kumar, P. M., & Renjit, J. A. (2022). HVIATC: Ontology-Based Efficient Query Optimization for Declarative Crowdsourcing System Using OAF Measures. In *Futuristic Communication and Network Technologies: Select Proceedings of VICFCNT 2020* (pp. 83-93). Springer Singapore.
13. Wankhede, J., Sambandam, P., & Kumar, M. (2022). Effective prediction of heart disease using hybrid ensemble deep learning and tunicate swarm algorithm. *Journal of Biomolecular Structure and Dynamics*, 40(23), 13334-13345.
14. Baruah, W. R., Dhanalakshmi, R., & Bairavel, S. (2022, January). Mitigating theft-of-service attack-Ensuring cloud security on virtual machines. In *AIP Conference Proceedings* (Vol. 2385, No. 1). AIP Publishing.
15. Issac, A. C., Issac, T. G., Baral, R., Bednall, T. C., & Thomas, T. S. (2021). Why you hide what you know: neuroscience behind knowledge hiding. *Knowledge and Process Management*, 28(3), 266-276.
16. Arunachalam, P. L., Krishna, P., Vignesh, M., & Thomas, T. S. (2021, October). Ambulance booking application. In *2021 6th international conference on signal processing, computing and control (ISPC)* (pp. 146-149). IEEE.
17. Abilash, C. S., Dinakaran, M., & Anju, A. (2022, February). Currency Recognition for the Visually Impaired People. In *2022 IEEE Delhi Section Conference (DELCON)* (pp. 1-3). IEEE.
18. Assegie, T. A., Rangarajan, P. K., Kumar, N. K., & Vigneswari, D. (2022). An empirical study on machine learning algorithms for heart disease prediction. *IAES International Journal of Artificial Intelligence*, 11(3), 1066.
19. Hemanth, D. J. (2021). Heart Disease Prediction Using Hybrid Random Forest Model Integrated with Linear Model. *Advances in Parallel Computing Technologies and Applications*, 40, 370.
20. Mageshwari, R., Sri Kiruthika, G., Suwathi, T., & Thomas, T. S. (2022). Detecting Six Different Types of Thyroid Diseases Using Deep Learning. In *Mobile Radio Communications and 5G Networks: Proceedings of Second MRCN 2021* (pp. 73-81). Singapore: Springer Nature Singapore.
21. Ezhilarasi, K., & Maria Kalavathy, G. (2023, February). Development of Contextual Crop Ontology for Effective Information Retrieval. In *Proceedings of 3rd International*

Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications: ICMISC 2022 (pp. 53-65). Singapore: Springer Nature Singapore.

Publications By Students

22. Adithya, A., Anisa, H., Monika, J. S., Thomas, T. S., & Kumar, A. (2022). Facial expression detection and classification using SVM, CNN and decision tree algorithm. *International Journal of Health Sciences*, 6(S4), 3954–3962. <https://doi.org/10.53730/ijhs.v6nS4.9770>
23. A. F. R, A. A. B, J. K and L. P, "Electronic Medical Record Management System Using Recommendation Algorithm," 2022 Third International Conference on Intelligent Computing Instrumentation and Control Technologies (ICICICT), Kannur, India, 2022, pp. 193-199, doi: 10.1109/ICICICT54557.2022.9917794.
24. L. A. Gabralla, R. Jammazi and A. Abraham, "Oil price prediction using ensemble machine learning," 2013 International Conference on Computing, Electrical and Electronic Engineering (ICCEEE), Khartoum, Sudan, 2013, pp. 674-679, doi: 10.1109/ICCEEE.2013.6634021.
25. Balaji, S., S. Vishagasudan, and K. Ezhilarasi. "Online voting system using block chain technology." *Int. J. Health Sci.(Qassim)* 6.S4 (2022): 3978-3987.
26. A. A, B. M, M. R, V. K and K. K. S R, "Sentimental Analysis for E-Commerce Website," 2022 10th International Conference on Emerging Trends in Engineering and Technology - Signal and Information Processing (ICETET-SIP-22), Nagpur, India, 2022, pp. 1-4, doi: 10.1109/ICETET-SIP-2254415.2022.9791606.
27. Ezhilarasi, K., and M. Rajeswari. "Enhancing Crop Productivity using Machine Learning." *Journal of Positive School Psychology* (2022): 8874-8879.
28. Sujanthi, K., Sushmitha, R. S., Swetha, M., & Ms Ezhilarasi, K. 3C's Algorithm for finding shortest path in Logistics Management.

Industry Institute Interaction

TITLE: Report On

JAVA TRAIN THE TRAINER PROGRAM

SPoC :Dr. Frank Vijay, HoD - IT Department

Staff Attended:- Ms. Minu Susan & Ms. Tina Susan Thomas

Mode of Meeting:online-

Infosys-webex.com Date time

of meeting:

Date	July 5 – July 9, 2021
Timing	9 AM – 12:30 PM on all days
Topics Covered	Basic Java, Object Oriented Programming and Data Structures
Mode	Virtual

Eligibility criteria:

- Should be a permanent member of faculty of the CSE / IT / ISE / MCA departments with experience ranging from 2 to 15 years
- The faculty member should not have participated in any of our previous enablement programs on Java Programming
- **Post the event, it is also expected that the participating members of faculty should take lead in disseminating the knowledge to students in the best possible way.**

AGENDA OF THE MEETING:

Digital literacy is all about the skills required to achieve digital competence and use of Information and Communication Technology (ICT) for work, leisure, learning and communication. To shape the younger generation who need quality education through digital literacy and to make them productive and self-reliant citizens, the Infosys Digital Literacy mission has been launched with rich contents made available for public consumption. Some of these contents available were introduced during the programme. The objective of the Train the Trainer Program on Java using Infosys Headstart Platform conducted by Infosys was to

sensitize the participants on a broad range of techniques for Java. Java is one of the most sought after programming language today. **The entire programme was based on Java programming.** The five-day program was progressively designed from elementary to advanced concepts of Basic Java, Object Oriented Programming and Data Structures.

Hosted by:

- Mr. Roy Antony Arnold George Charles
- Mr. Kannusamy Jegatheesan Sudarsanan

PROGRAM FLOW:

The complete training was based on “**Programming using java**” course available in the headstart portal. The programme started with the Pework wherein we are asked to learn the fundamentals of java given in the course and to complete the assignments given ahead of the training. The day wise split up of the topics and the details are given below:

Day 1:

The training started off with the welcome speech by Mr. Roy Arnold, Infosys . The speaker grouped us into teams, each team had participants from various colleges. The technical session started with oops concepts- Methods and Constructors using Java is discussed. it was more of self-learning sessions. The keynote speaker gave an introduction to the oops and constructors and instructed the participants to work on the and assignments for each module. It was a team work and few assignments were completed in the breakout session and the rest of the assignments given are solved individually. Three quizzes were given during the session.

Day 2:

The speaker gave introduction about abstraction and class diagram using java. Three quizzes were given during the session. We were divided in to groups for the breakout session and completed the assignments given. The rest of the assignments given were solved individually.

Day 3:

The topics Code analysis, Static, Association and relationship were dealt. Three quizzes were given during the session. We were divided in to groups for the breakout session and completed the assignments given. The rest of the assignments given were solved individually.

Day 4:

The topics Final Keyword, Exception Handling, Method overloading, Method Overriding weredealt. Three quizzes were given during the session. We were divided in to groups for the

breakout session and completed the assignments given. The rest of the assignments given weresolved individually.

Day 5:

The topics collections & Linked List coming under data structures were dealt. Three quizzes were given during the session. A final assessment was given based on the course and the duration of the assessment was 1 hour 30 minutes.

Performance of our

Nominated staff:

Ms.Minu Susan Jacob

TTT on Java Programming

5th July to 9th July 2021

Information for Certificate Issue

For Certificate	
Name to be printed	Minu Susan Jacob
College Name to be printed	KCG College of Technology

Final Score (Paste Screen Shot Here)

Email Ids Information	
Email Id(s) used for joining daily WebEx sessions	1.minu.cse@kcgcollege.com 2.minususanjacob@gmail.com
Email Id used in Headstart learning	minu.cse@kcgcollege.com
Email Id used in INFYTQ Portal	minususanjacob@gmail.com



CERTIFICATE OF PARTICIPATION

This certificate is presented to

Prof.Minu Susan Jacob

KCG College of Technology

for participating in **Train The Trainer Program on Java Programming** conducted by **Infosys Limited** from **July 5 – July 9, 2021**



Thirumala A
Head - Education, Training & Assessment

Ms. Tina Susan Thomas



REPORT ON CELONIS

Dates: 14.03.22 & 18.03.22

Organizer: Celonis Academic Alliance-ICT Academy

Participants:

1. Mr N Bhaskar – Assistant Professor-IT
2. Ms. Anju A – Assistant Professor-IT

Session Timing: 6:30 PM to 8.30 PM

The training started off with the warm welcome address by Ms. Angela-Sophia Gebert, Academic Alliance Manager Celonis SE, Munich, Germany. The session covered the theory introduction to Process Mining as well as software introduction to Celonis. Mr. Eugenio Hermendez Gomez had given a brief introduction about Process Mining and technologies associated with this.

Topics Covered:

Day 1:

➤ Understanding of Process Mining

Analyze the Fluidity of a *process*, detect Anomalies in real time and measure Performance. Thanks to AI, anticipate future flows and predict issues. Operational excellence. Intuitive dashboard. Game-changing insights. *Process Mining 2.0*. Predictive module.

• Contents include:

○ Introduction to Process Mining Theory & Applications

Process mining is a set of techniques used for obtaining knowledge of and extracting insights from processes by the means of analyzing the event data, generated during the execution of the process. The end goal of process mining is to discover, model, monitor, and optimize the underlying processes.

○ Celonis Software Intro to Academic Software License and Learning Platform

"What is Process Mining?"

Process Mining is a smart big data technology that analyses and advises you on how to improve your processes based on data generated in your organisation in real time.

- Process Mining lies at the intersection of **process science** and **data science**, bridging the gap between model-based process analytics and data-centered analytics.
- It allows users to **reconstruct, analyze and improve** business processes based on event logs from transactional IT systems like SAP, Oracle, Salesforce, etc.

Process Mining Technology

The diagram illustrates the relationship between Business Processes, Information Systems, and Event Logs. Business Processes (World*) are supported and controlled by Information Systems. Information Systems generate Event Logs. The Event Log is used for Discovery, Conformance, and Enhancement of the Process Model. The Process Model is implemented in Information Systems. The source is based on van der Aalst (2016).

Day 2:

➤ Extended Process Mining Theory & Applications

- Process mining** is a family of techniques relating the fields of data science and process management to support the analysis of operational processes based on event logs. The goal of process mining is to turn event data into insights and actions. Process mining is an integral part of data science, fueled by the availability of data and the desire to

improve processes.^[1] Process mining techniques use event data to show what people, machines, and organizations are really doing. Process mining provides novel insights that can be used to identify and address performance and compliance problems. Process mining has been applied in all industries (e.g., banking, insurance, production, logistics, transportation, telecom, energy, and healthcare).

- Examples of organizations applying process mining at a large scale are Siemens, BMW, Zalando, Uber, Lufthansa, AkzoNobel, ABB, Elsevier, Neste, and Vodafone. HSPI regularly publishes a database with example process mining applications. In 2020 there were 551 case studies from 27 countries around the world.

Process Mining techniques

The diagram illustrates three main process mining techniques:

- Discovery:** An Event Log is processed to generate a theoretical Model. Description: "Generate a theoretical model from processes in reality".
- Conformance:** A Model and an Event Log are compared to produce a Diagnosis. Description: "Compare reality and process model".
- Enhancement:** A Model and an Event Log are used to create a New Model. Description: "Enhance or extend an a prior model".

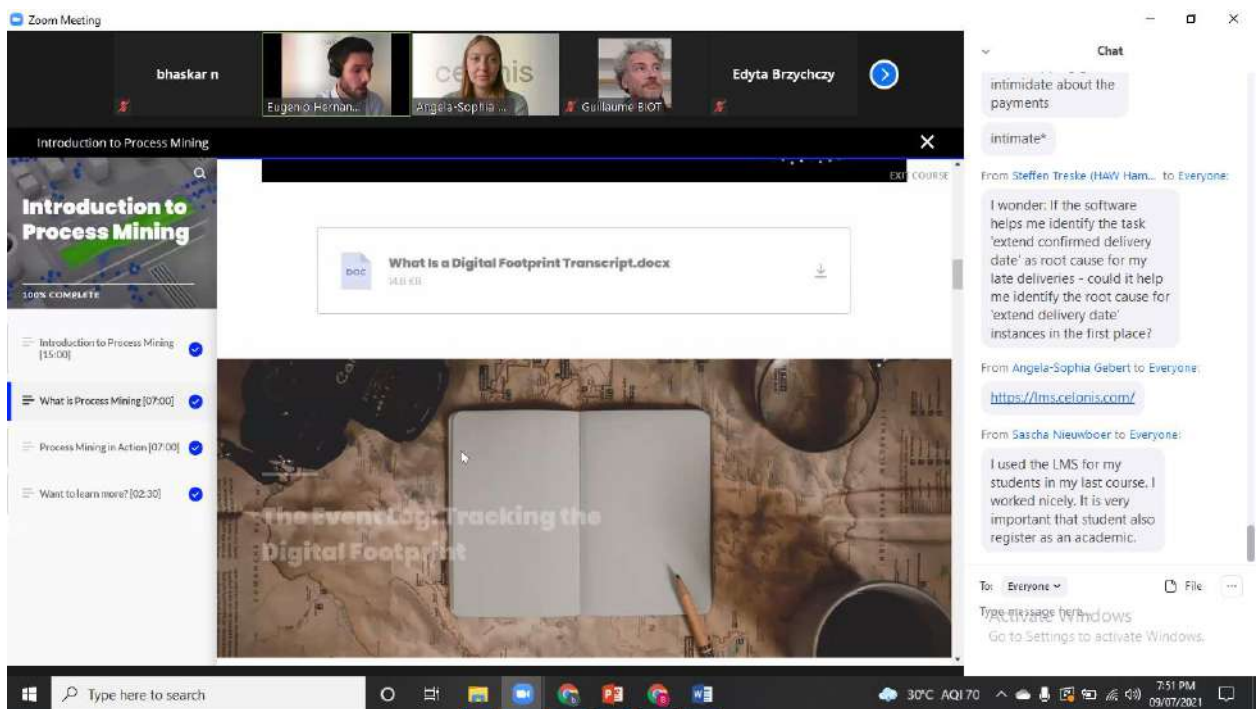
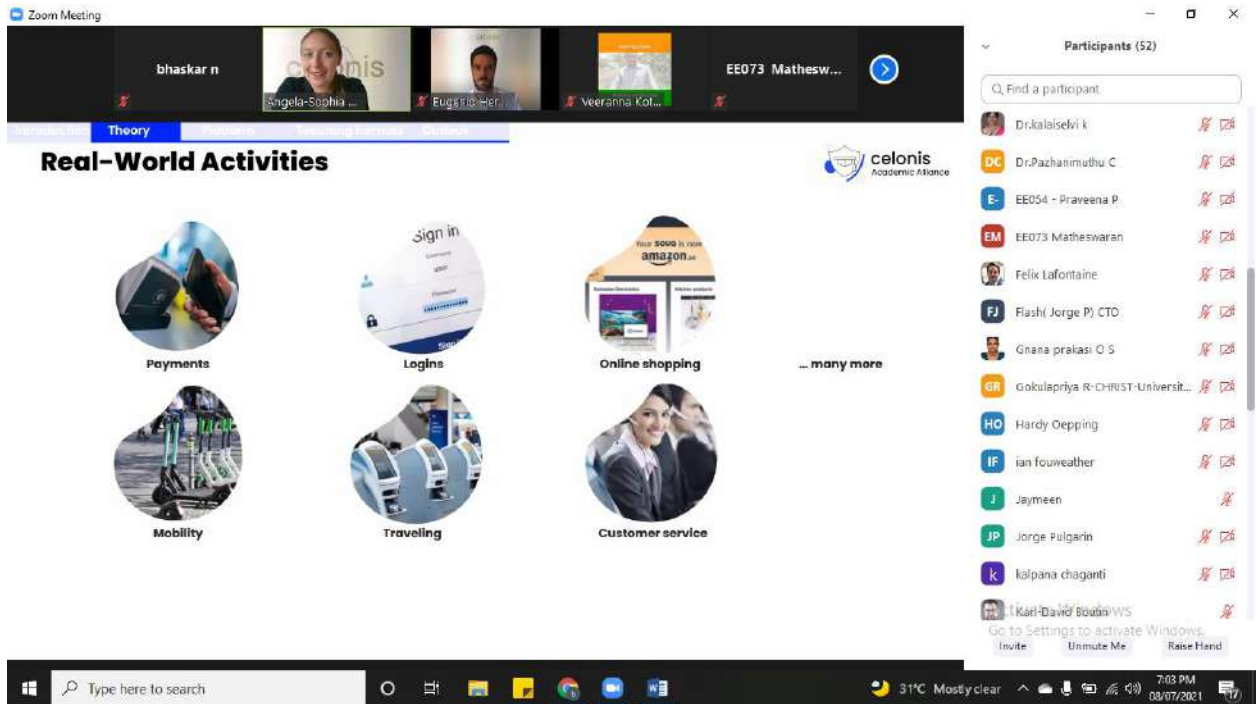
Additional text on the slide:

- **Discovery** uncovers the way processes are executed by replicating a process model from the event log.
- **Conformance Checking** compares the 'as-is' process from the log data with a 'to-be' model.
- **Enhancement** uses insights from discovery and conformance to improve the process.

van der Aalst (2016)

Participants (52):

- Dr.kalaiselvi k
- Dr.Pazhanimuthu C
- EE054 - Praveena P
- EE073 Matheswaran
- Felix Lafontaine
- Flash(Jorge P) CTO
- Gnana prakasi O S
- Gokulapriya R-CHRIST-Universit...
- Hardy Depping
- ian fouweather
- Jaymeen
- Jorge Pulgarin
- kalpana chaganti
- Tikari David soumis



Finally, we thank the Management, Principal and HoD-IT for providing us the opportunity to attend this programme.

Professional Bodies

CSI

The Computer Society of India (CSI) is a professional body where computer professionals meet to exchange views and information, to learn and share ideas. The wide spectrum of members is committed to the advancement of the theory and practice of Computer Engineering and Technology Systems, Science and Engineering, Information Processing and related Arts and Sciences. CSI is the oldest and largest organization of IT professionals in India having 25000 members and 63 chapters and more than 185 students Branches across the country exclusively focusing on the interest of the IT Professionals. In order to create value to its members and provide benefits, the Society has planned various schemes. All the faculty members of the IT department are the life time members of CSI. **Dr. J. Frank Vijay, Professor and Head of the IT department was elected as the Treasurer of CSI Kancheepuram Chapter.**

CSI Sponsored two Days Workshop on Web Application Development

The CSI Sponsored Two Days workshop on Web App Development was organized for the third-year students of IT & CSE by both the departments on 21st and 22nd June, 2021 in IT Lab II.

Mr. Vivek, Alumni of Computer Science Department, currently working as Program Analyst in Cognizant was invited as the special speaker for the first session.

The workshop commenced with a welcome note followed by speech of HOD-CSE about the objectives of the workshop. Mr. Vivek gave an insight about the architecture of web applications and also gave demo of the simple web application development using predefined tools. Web-based application is any application that uses a website as the interface or as front-end. It is a client-server computer program in which the client (including the user interface and client-side logic) runs in a web browser. Common web applications include webmail, online retail sales, online auctions, wikis, instant messaging services and many other functions.

The sessions were spread over two days from 9:00 A.M to 4:00 P.M. The sessions

used a variety of approaches—presentations, Hand-on Training, discussions etc.

Day-I:Session –I

The first session commenced after the break and Mr.RamSanker, Mr.Rudraksh and Mr.Manjunath from III yr/CSE were the resource persons for the session. They introduced HTML and CSS to the students

Day-I :Session-II:

The resource person for the second session was Mrs.M.Dhivya lab Instructor/ IT Department.She gave an insight about the basic concepts of PHP.

Day II: Session I & II:

The resource person for the second day was Mr.SaiCharan, Alumni of CSE.He is currently owning his own start-up company. He discussed about the advanced concepts in HTML and CSS in session I and in session II the participants were asked to develop a simple Web Application on their own.



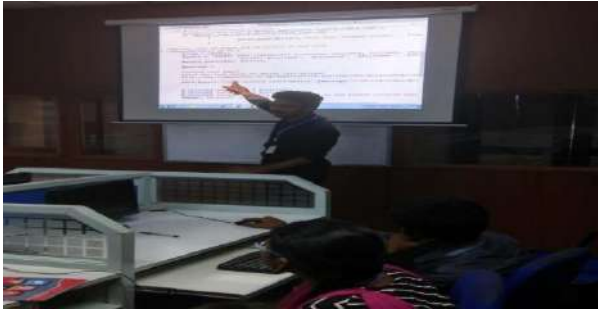
Welcome note by Ms.R. Adline Freeda Special note



Mr.Vivek talking about Web Apps



Mr.Vivek giving Dem



Mr.Ram Sanker explaining HTML tags
CSS



Mr.Manjunath Explaining



Mrs.M.Dhivya explaining PHP
session



Mrs.M.Dhivya giving Hands -on



Session on CSS by Mr.Saicharan



Hands-on session on CSS



Group photo with the Organizers, participants and resource person

CSI SPONSORED ONE DAY WORKSHOP ON WORD PRESS

CSI sponsored one day workshop on Word press was organised by Dr. M.Baskar on 17th July 2021. Word Press is a free and open source content management system based on PHP and MySQL. It is most associated with blogging but also supports other types of web content. The objective of the workshop was to make a great impact in developing a website in simpler way by the students. The various portions covered in the workshop includes: (i) introduction to Wordpress (ii) Navigate around the WordPress dashboard (iii) understand the main features of Wordpress (iv) Create pages and posts (v) Understand plugins and themes and how to find/install them (vi) to create a static homepage useful for most of the webpages (vii) to create a responsive website that looks good on any browser.

CSI SPONSORED ONE DAY WORKSHOP ON ICT TOOLS IN TLP (MOOC)

ICT tools have taken pivotal position in education nowadays. A fair bit of knowledge about the tools is quintessential. The department of Information Technology and Computer Science and Engineering, has taken the pioneering step in conducting a programme on the ICT TOOLS in TLP (MOOC) which

enabled the attendees to improve the teaching learning process on 18th July 2021. Dr. M. Baskar , Assistant Professor- Selection Grade was the Program Convenor and Ms. Tina Susan Thomas, Assistant Professor – Senior Scale was the Co-ordinator of the event. Ms.S. Revathy, Assistant Professor (SG) – Computer Science Engineering, Hindustan

Institute Of Science And Technology and Mr. A.Balagi, Assistant Professor (SG) – ComputerScience and Engineering, KCG College Of Technology were the resource persons.

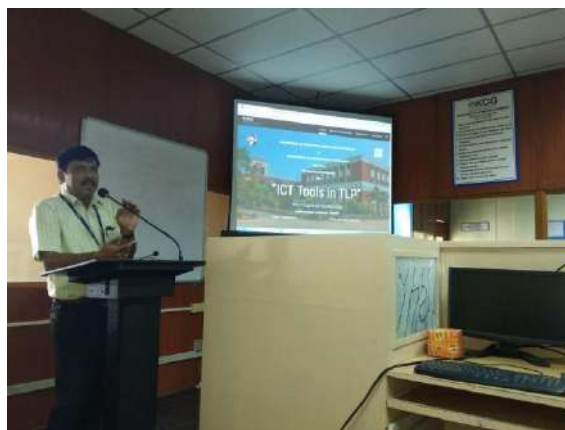
The program started with the felicitation by Dr. M. Krishnamurthy, HOD – CSE. He appreciated the convenors for organizing such a workshop, which was indeed the need of the hour. The objective of this workshop was to make a great impact in teaching learning process,while delivering the contents to the students in and outside the classroom. Online course havecreated great impact in the students learning process nowadays. This workshop empowered thefaculty members to effectively use the ICT tools in teaching and learning process.

The training session started by 9:30 am. Ms. S. Revathy and Mr. A. Balaji who are experts in ICT TOOLS and having years of vital experience set the ball rolling. Their technicalknow-how and software prowess impressed the attendees which includes teaching faculty members and research scholars from inside and outside the college.

The workshop was really interesting and informative. The workshop came to an end with the valedictory function and vote of thanks by Dr. M. Baskar. The certificates for all the participants were distributed, marking the end to another successful programme by the department of Information Technology and Computer Science and Engineering.



Participants of the workshop



Felicitation by Dr. M. Krishnamurthy



Session



Mr.A.Balaji handling the session



Certificate distribution



Certificate of Attendance

Adline Freeda

RECIPIENT

KCG

NAME OF COLLEGE/UNIVERSITY/ORGANIZATION

March 11, 2021

DATE

Developing Database Applications with Oracle Academy Cloud Program

WEBINAR NAME/TITLE

Thank you for joining us.

DAMIAN HAAS,



Certificate of Attendance

Adline Freeda

RECIPIENT

April 24, 2021

DATE

GIRLS IN ICT | Oracle Academy Data Visualization Bytes

EVENT/COURSE

Thank you for joining us.

DAMIAN HAAS,
ORACLE ACADEMY, SENIOR DIRECTOR, JAPAN & ASIA PACIFIC

Placement Achievements



KCG
COLLEGE OF TECHNOLOGY
(A Unit of Hindustan Group of Institutions)

Heartiest Congratulations

Placement Achievement

The Department of **Information Technology** appreciates the following Students and wishes them a blessed and fruitful outcome in all their future endeavours.



Batch: 2018 - 2022

 Lavanya P	 Jahnavi K	 Mahaalakshmi B	 Vishagasudan S
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Package: INR 4.5 LPA

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KCG
COLLEGE OF TECHNOLOGY
(A Unit of Hindustan Group of Institutions)

Heartiest Congratulations

Placement Achievement

The Department of **Information Technology** appreciates the following student and wishes her a blessed and fruitful outcome in all her future endeavours.



Batch: 2018 - 2022

 Rajeswari M
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Package: INR 4 LPA + Skill Bonus

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