



# SAKSHIN

MONTHLY NEWSLETTER OF DEPARTMENT OF  
CSE/IT

## VISION

- Nurturing globally competent Computer Science and Engineering graduates capable of taking challenges in the Industry and Research & Development activities

## MISSION

- Imparting quality education to meet the needs of industry, and to achieve excellence in teaching and learning
- Inculcating value-based, socially committed professionalism for development of society
- Providing support to promote quality research

## CONGRATULATIONS !!!!

**Adi Shankara**  
Institute of Engineering & Technology

**Dept. of Computer Science & Engineering**

**Congratulations  
Top Performers**

Sruthilaya Jyothidas  
S2 CSE B

Jeswin James  
S2 CSE B

Aadhithyanarayanan V A  
S2 CSE A

Alfiya M J  
S2 CSE A

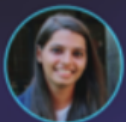
**Securing 10 Grade points in KTU S2 Examination May 2020**

Vidya Bharathi Nagar , Mattoor, Kalady - 683574    [www.adishankara.ac.in](http://www.adishankara.ac.in)

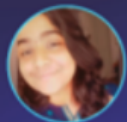
## National Innovation Challenge Finalists

FABLAB PROJECT :  
Automated Egg Incubator  
using E-waste

Team Members :



Sangeetha Prasad ECE



Devika Krishnakumar  
Menon CSE

## NATIONAL INNOVATION CONTEST 2020

Congratulations to our dear students Devika Krishnakumar(S4 CSE A) and Sangeetha Prasad (ECE) for securing a position among the top 127 finalists in NIC 2020. They had to compete with more than 1400 projects across the country to reach the final list. They will be receiving further training on startup and will also be assessed for funding support in the next stage. The project is guided by Asst.Prof.Anuroop KE of ECE Dept.



## EDITORIAL BOARD

CHIEF EDITOR & CREATIVE DESIGN : ASST.PROF.REMYA VINAYAKUMAR

CONTENT TEAM : DHIYA THOMAS (S3 CSE A), SUDARSAN (S3 CSE B),  
A.R NANDAGOPAL (S5 CSE A), VINDHUJA(S5 CSE B), ARATHY S KUMAR &  
NAVEEN S (S7 CSE) & ANU MARY & ANJANA BENNY (S7 IT)

CONTACT US:

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# ICRTAI'21

www.icrtai.com

## ICRTAI'21

International Conference on Recent Trends in Artificial Intelligence

Organized by  
Department of Computer Science & Engineering

Conference Dates 29, 30 June 2021	Online Mode Google Meet
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Extended Paper Submission Deadline : 31 May 2021

In association  
ScotsHunt United Kingdom,  
Computer Society of India,  
Instrumentation Society of Automation

Video poster presentation  
Artificial Intelligence Research Group  
International delegates for session chair  
National & International audience free entry  
International speakers from reputed universities  
Open collaboration with Multimedia Research Lab  
Open collaboration with projects in AI Domain

General Enquiry & Paper Submission: icrtai21@adishankara.ac.in

**Adi Shankara**  
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Vidya Bharathi Nagar, Mattoor, Kalyadi-683574  
www.adishankara.ac.in

## CALL FOR POSTERS

ICRTAI' 21 encourages poster submission in futuristic next generation technologies.

Poster Submission Email id:

**icrtai21@adishankara.ac.in**

with subject as '**Virtual Poster Presentation**'

Poster Submission Deadline :

**June 20, 2021**

Registration Amount:

**200 (Indian Rupees)**

Best Poster will be awarded with cash prizes

For more details visit:

<https://sites.google.com/adishankara.ac.in/icrtai21/call-for-papers/call-for-posters?authuser=0>

## DEPARTMENT ASSOCIATION PROGRAMME



**Asst. Prof. Ajay Basil Varghese**  
**Dept. of Computer Science & Engineering,**  
**Nodel Officer, IEDC/TBI, ASIET**

Department of Computer Science & Engineering conducted an outreach program on "How to plan for Start-up and IPR, Legal & Ethical Steps" in association with IIC. The session was handled by Asst. Prof. Ajay Basil Varghese, Nodel Officer, IEDC/TBI, ASIET and co-ordinated by Asst. Prof. Ramesh R, Sanjay Gireesan, Kshama P Kamath, U Harikrishnan and Linu Joy of S2 CSE B. The participants included both Engineering and plus two students.

## ONLINE COURSES/WEBINARS/EVENTS

- **Electric and future mobility**

Amritha R, Ann Mariya Jose and Amal Aji of S2 CSE A and Aishwarya Baiju, Abhijith V Manoj, Jannath Parvin, Aishwarya K Shaji and Akshay P Raj of S4 CSE A participated in the National event "Electric and future mobility" conducted by MA College, Kothamangalam in collaboration with Pravaig,KSEB and Kerala Volvo on 22/05/2021.

- **INTERAGIR - Know your opportunities**

Jeevan Nair PK, Lekshmi Sharma, Sruthilaya Jyothidas, S Shankarakrishnan and Sudharsan of S4 CSE B and Honey M,Issac Joy and Ajas Khan of S4 CSE A took part in the "Microsoft Learn Student Ambassador Program" conducted by IEEE Computer Society Chapter of IEEE SB ASIET on 13/05/2021.

- **Natural Language Processing - ORIGO**

Kishore Babu, Paul Martin, Jeevan Nair PK and Sudharsan of S4 CSE B attended a hands-on sessions for the initial five days on Natural Language Processing followed by few interesting competitions conducted by Signal Processing Society Chapter of IEEE SB ASIET from 24/05/2021-30/05/2021.

- **Calibrate 2.0**

C S Pooja, Honey M, Issac Joy, Ajas Khan, Bhagya Lakshmi M S and Dona Antony of S4 CSE A participated in the quiz competition "Calibrate 2.0" on 13/05/2021.

- **MOOC Courses**

- A S Lakshmi and Dona Antony of S4 CSE A completed a course on 'The Fundamentals of Digital Marketing' from Google Digital Garage
- Appu VA of S4 CSE A completed a course on "Python for everybody" from coursera.
- Joseph George Padayatty of S4 CSE completed a courses on "Introduction to IT & Cybersecurity" and "Introduction to Cybersecurity Tools & Cyber Attacks" from Coursera.

- **TECODIUM**

C S Pooja and Dona Antony of S4 CSE A participated in "TECODIUM" coding hackathon on 07/05/2021



- **Workshop/Webinar**

- C S Pooja and Honey M of S4 CSE A attended "Git and GitHub" workshop on 22/05/2021.
- Dane Jose of S2 CSE A attended a workshop on "chatbot design", organized by Pantech pro labs India Ltd from 26/05/2021-28/05/2021. She also attended an international webinar on "Journey as a scientist of ISRO", organized by TEAM 2020 HELPERS on 29/05/21
- Honey M of S4 CSE A participated in the Bootcamp on "Python and Computer Vision" on 17/05/2021.
- Issac Joy, Honey M and Ajas Khan of S4 CSE A attended the " Xtrinia 3.0 M S" workshop on 23/05/2021.
- Bhagya Lakshmi M S of S4 CSE A attended a webinar on "Insights on approaching placement" in the month of May 2021.

## FACULTY CORNER

### Paper Publication

Asst.Prof.Rose Mary Varghese, Asst.Prof.Jain Stoble B and Asst.Prof.Remya Vinayakumar has published a paper on "An Automated Landslide Detection System" in International Journal of Research in Engineering and Science (IJRES), Volume 9, Issue 3, pp: 09-15

### Faculty Development Programme/ Webinar

- Asst.Prof.Remya Vinayakumar, Asst.Prof.Jain Stoble B & Asst.Prof.Rose Mary Varghese attended the APIJAKTU-Sponsored 5 day FDP on "Analysis and Implementation of data security on hosts and networks" by Muthoot Institute of Technology & Science from 10/05/2021-15/05/2021
- Asst.Prof.Anaswara Jayan , Asst.Prof.Divya G and Asst.Prof.Ramesh R attended an FDP on "Art of Writing Research Paper and Proposals" by Dr. Vinod P at Christ College of Engineering, 29/05/2021.
- Asst.Prof.Simi MS attended KTU Sponsored 5 Day FDP on 'Research Trends in social network analytics' organized in online mode by Computer Science and Engineering Dept, SCMS School of Engineering and Technology, Cochin.
- Asst.Prof.Gripsy Paul Mannickathan attended a webinar on "Blockchain in shaping future economy" on 03/05/2021 conducted by Hyperledger ,India Chapter.
- Asst.Prof.Ramesh R attended a webinar on "Orchestrate Flow of Data Across Entire Big Data Pipeline"on 19/05/2021, conducted by Stonebranch.



## Research Talk

### Automated Modeling and Extraction of edges and contour of image objects



**Ass.Prof.Sobha T**  
Dept.of Computer Science & Engineering,  
ASIET

The Sixth research seminars of the department of Computer Science and Engineering was presented by Ass.Prof. Sobha T on 19/5/2021. The session focused on extraction of edges and contours. It began with introduction to the fundamental concepts like image processing, its applications, edge, contour, etc. Later several edge detection and contour identification methods were touched upon. The session was concluded with discussion on implemented results.

### Heterogeneous Data Fusion using Big Data Analytics



**Asst.Prof. Divya G**  
Dept.of Computer Science & Engineering,  
ASIET

The seventh research seminar of the department of Computer Science and Engineering was presented by Asst.Prof.Divya G on 19/5/2021. Variety of data or heterogeneous nature of the data is one of the main challenges of Big. As big data applications are on rise, data fusion should become an integral part of the big data application life cycle. In this seminar, a review of the different data fusion techniques and their applications was provided.

### An overview on cancer detection using deep learning neural networks



**Asst.Prof. M Gokilavani**  
Dept.of Computer Science & Engineering,  
ASIET

The eighth research seminar of the department of Computer Science and Engineering was presented by Asst.Prof.M Gokilavani on 28/5/2021. The session focused on how to detect skin cancer using CNN. Started with the brief introduction about ML and why we prefer deep learning, CNN and experimental analysis with result discussion and concluded with some use full information about the CNN and deep learning to the upcoming researcher.

### A novel approach for predicting purchase pattern by extant records using data mining techniques



**Asst.Prof. Raghi R Menon**  
Dept.of Computer Science & Engineering,  
ASIET

The ninth research seminar of the department of Computer Science and Engineering was presented by Asst.Prof.Raghi R Menon on 28/5/2021. The session was to know the purchase pattern of customer based on previous purchases using Apriori algorithm in datamining. Started with a brief introduction about data mining and techniques to find the frequent patterns using Apriori algorithm and concluded with comparison of Apriori and DCI closed algorithm and its experimental result.



# RESEARCH LAB ACTIVITIES

## DATA ANALYTICSS RESEARCH LAB (DARL)

### Purpose of the lab

- 1.To provide an overview about Big Data and its applications.
- 2.To give students hands-on experience in multi-node Hadoop & Spark cluster.
- 3.Setting up and running of Hadoop clusters in single mode as well as in pseudo-mode.

### Areas of Research

- 1.Smart Transportation
- 2.Deep Learning
- 3.Home Automation Security
- 4.Computational Biology
- 5.Gaming

### Faculties in-charge:

- 1.Asst.Prof.Ramesh R
- 2.Asst.Prof.Divya G
- 3.Asst.Prof.Sreereshmi TS
- 4.Asst.Prof.Anaswara Jayan

### Projects completed

- Fifteen projects have been completed under the DARL lab. A few of them include :
  - Real-Time Vehicular Traffic Analysis using Big Data Processing and IoT based Devices for Future Policy Predictions in Smart Transportation
  - Pedestrian Detection in Railway cross using video analytics for human safety
  - Computational Epidemiology Using Machine Learning

### Ongoing research works

- There are more than 8 ongoing research works in the area of Computational Frameworks in Big Data Analytics , Smart Transportation, IoT Data Analytics , Video Analytics , Sentimental Analysis and Data Fusion. A few of them are:
  - Improved Clustering Algorithm in Big Data Analytics
  - Smart Arrival or Departure Time Prediction using RFID
  - Wrist Wearable Quarantine Tracker using Geo-Fencing
  - Improved Decision Fusion for Big Data Analytics

### Patents published

- Aquaponics System Using Iot And Web Based Interface (No. 202041033498)
- Hyperledger based smart vehicle accident detection (No. 202041033666)



## TECH-News

### Microsoft releases Windows 10 21H1 as another minor OS refresh

The year's first feature upgrade for Windows 10 arrived in the month of May 2021 with little fanfare, largely because it offers little new functionality because Microsoft has abandoned its major-minor release cadence. Only customers throwing caution to the wind as early adopters can immediately upgrade to 21H1, and then only if their computers meet Microsoft's unspoken criteria. Alternately, IT administrators can deal out the refresh to workers' devices using their preferred management tools. In many cases, Microsoft will refuse to offer Windows 10 21H1 because the target machine has been tagged with an incompatibility of some kind. Often, those are linked to specific hardware configurations or problematic software.

#### Windows 10 version 21H1 update new features:

1. Windows Hello multicamera support:

Windows Hello multicamera support to allow users to choose an external camera priority when using high end displays with integrated cameras.

2. Windows Defender improvements:

Windows Defender Application Guard performance improvements including optimizing document opening scenario times.

3. TLS 1.3 protocols:

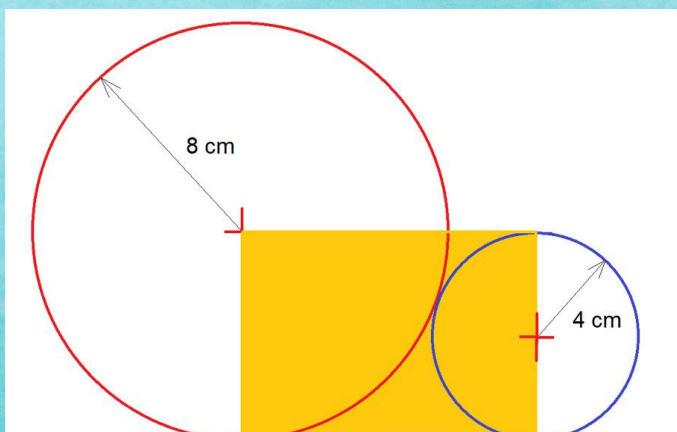
The Microsoft documentation reveals that Windows 10 21H1 update will enable TLS 1.3 protocols.

4. Improving your search experience:

5. Improvements for Enterprise:

Windows Management Instrumentation (WMI) Group Policy Service (GPSVC) updating performance improvement to support remote work scenarios.

Can you solve it?



Two perfectly circular wheels are resting on a perfectly horizontal plane just touching each other as shown in the figure. If the larger wheel is 8 cm in radius and smaller wheel is 4 cm in radius, what is the area of the yellow rectangle?