COMPUTER SCIENCE ENGINEERING

Vol-10
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Issue-5
Jan-Feb

Principal's Message

Dear Parents and Students,

It is with great pleasure that I welcome you to our College (DIET) Newsletter. As Principal I am hugely impressed by the commitment of the college and the staff in providing an excellent all-round education for our students with our state of the art facilities. We, as a team working together, strongly promote the zeal towards academic achievement among our students. The cultural, sporting, and other successes of all our students and staff are also proudly celebrated together. I congratulate the staff and students who brought the latest technologies and concepts onto the day-to-day teaching-learning platform. As long as our ideas are expressed and thoughts kindled we can be sure of learning, as everything begins with an idea.

I appreciate every student who shared the joy of participation in co-curricular and extracurricular activities along with their commitment to the curriculum. That little extra we do is the icing on the cake. 'Do more than belong – participate. Do more than care – help. Do more than believing – practice. Do more than be fair – be kind. Do more than forgive – forget. Do more than dream – work.' With a long and rewarding history of achievement in education behind us, our DIET community continues to move forward together with confidence, pride, and enthusiasm. hope you enjoy your visit to the website and should you wish to contact us, please find details at the www.diet.ac.in

Yours in Education

Dr.Ravi Kadiyala

Principal

HOD's Message

It gives me a great pleasure to congratulate the staff and students of the Department of Computer Science and Engineering for the publication of the newsletter "Tech Vivids -Insights of CSE". This newsletter mirrors the professional and academic achievements of faculty and students which would lead them to the overall development of their personality in the globalised world. Our effort would definitely create an impact in the minds of readers, by providing larger visibility and dimension. "Perseverance will always lead to diligence", with this in mind the department aims at quality teaching by exploring divergent events. The department motivates the students to improve their knowledge by organizing and participating in various events. This is only a small step towards a long journey to achieve progress. On our way towards reaching the objectives we may have face numerous milestones. I hope "Tech Vivids- Insights of CSE" would enlighten us with hope, confidence and faith in the journey ahead I congratulate the editorial board for the publication of the newsletter.

Dr.K.Sowmya
Professor & HOD
Dept. of CSE

Faculty Meeting

Date:06:01:2024

- **A faculty meeting was conducted in the department on 6-1-24**
- **several points about students monitoring and counselling were discussed**
- **what all responsibilities a faculty should take were explained in the meeting**

Sankranthi Sambaralu

Date:12:01:2024

- **Sankranthi celebrations were taken place in our college on 12-1-24**
- **on this day, several competitions like rangoli, mehendi, flying kite were conducted to the students**
- **the students have actively participated and enjoyed the eve.**
- **competition winners were given prizes**

Urban Area Road Safety week

Date:12:01:2024

- **In view of National Youth Day, an Urban Area Road Safety Week was taken place**
- **In this event, all the NCC students have actively participated and brought awareness about the urban area road safety**

Faculty Meeting

Date:12:01:2024

Orientation Program For IV years

Date:20:01:2024

- **An orientation program was held for the final year students to encourage and motivate them in getting placements**
- **In this meeting, the students were explained about how to get good placements and internships with good packages**

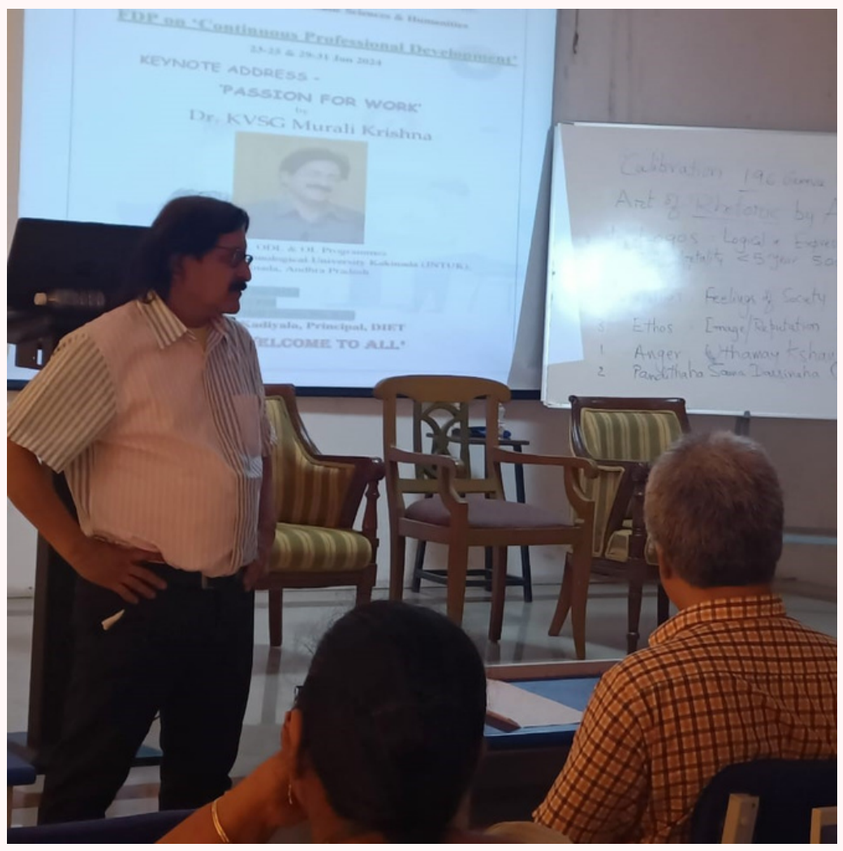
Meeting with Students

Date:20:01:2024

FDP on Contitinuous Professional Development

Date:23-25&29-31 Jan-2024

- **An FDP on Continuous Professional Development was taken place from 23-25 & 29-31 Jan 2024**
- **in this FDP on the first day, Dr.KVSG Murali Krishna, Director,ODL &OL Programs,JNTUK was invited as chief guest and sir has explained about PASSION FOR WORK**
- **Our Principal, Dr.Ravi has appeared as guest on the 2nd day and explained about how to improve the students outcome**
- **the faculty from CSE & other departments have participated in the FDP**



FDP on Contitinuous Professional Development

Republic Day

Date:26:01:2024

- **On the eve of Republic day, our students from DIET have participated in the JNTUK Republic day celebrations**

Pledge by Students

Date:25:01:2024

- **In view of voters day, our students have taken a oath to cast their vote for the best irrespective of caste, gender and other discriminates**

DISH RECOGNITION AND NUTRITION USING DEEP LEARNING

I. INTRODUCTION

On the global tourism map, food tourism is a popular trend. Dishes frequently reflect the traits of the locals and each culture. The geography, culture, religion, and climate of any country are just a few examples of the many distinct aspects that influence a culinary culture. For instance, olive oil and herbs are frequently used in Mediterranean cooking. Steak and cutlets are staples of Western European cuisine. Additionally, cheese and wine are well-known ingredients in sauces. Rice is the staple cuisine in Eastern Asia and Indochina, while fish, shrimp, and soybean are typically used to make sauces.

Many tourists are willing to pay to sample distinctive dishes from the surrounding areas. Therefore, there are lots of opportunities for economic growth with culinary tourism.

In order to enhance the culinary tourism experience, we concentrate on creating a method to identify food. Convolutional neural networks and transfer learning methods are used in the system's development, which is based on deep learning.

Food tourism is a hot trend in the tourism map of the world. Dishes often contain the characteristics of each culture and local people. The characteristics of a culinary culture depend on many different factors such as geography, culture, religion, and climate of each country. For example, in Mediterranean cuisine, the most prevalent ingredients are olive oil and herbs. For Western European cuisine, steak and cutlets are the common dishes. In addition, sauces from cheese, grape wine are famous ingredients. For Eastern Asia and Indochina, rice is a primary food, and sauces are usually made from fish, shrimp, and soybean. A large number of visitors are ready to pay for tasting characterized dishes of local regions Therefore, culinary tourism brings significant chances for economic development. Intending to improve the experience of culinary tourism, we focus on developing a system to recognize dishes. The system is developed based on deep learning with convolutional neural networks and transfer learning technique

The system focuses on Indian culture with 9 famous traditional dish classifiers: Bun, Com-Tam, Pho, Goi-Cuon, Banh-Xeon, Banh-Trang, Banh-Tet, Banh-Mi, Banh-Chung. The system can be easily extended for a larger number of classifiers, as well as for dishes of other countries. The significant contributions in this paper focus on the following manners. First, a novel convolutional neural network is developed based on Efficient Net and the transfer learning technique to recognize dishes. Second, providing a dataset of (Indian) dishes and trained data with learned features to let researchers/scientists reuse and extend it with a larger number of dish classifiers. Finally, a mobile application is developed based on the trained data to solve the task of dish recognition, and it also provided some useful information about dishes. The rest of the paper is organized as follows. Section 2 provided a systematic review of related methods. Section 3 presents materials and the proposed method to recognize dishes in 9 dish classifiers. Section 4 presents experimental results and the development of a mobile application to improve the experience of tourism visitors. Traditional image analysis approaches have achieved low classification accuracy in the past, whereas deep learning approaches enabled the identification of food types and their ingredients. The contents of food dishes are typicallydeformable objects, usuallyincluding complex semantics,which makes thetask of defining theirstructure very difficult.Deep learning methods have already shown very promising results in such challenges, so this chapter focuses on the presentation of some popular approaches and techniques applied in image-based food recognition. The three main lines of solutions, namely the design from scratch, the transfer learning and the platform-based approaches, are outlined, particularly for the task at hand, and are tested and compared to reveal the inherent strengths and weaknesses. The chapter is complemented with basic background material, a section devoted to the relevant datasets that are crucial in light of the empirical approaches adopted, and some concluding remarks that underline the future directions Traditional image analysis approacheshave achieved lowclassification accuracy in thepast, whereas deeplearning approaches enabled the identification of food types and their ingredients. The contents of food dishes aretypically deformable objects,usually including complexsemantics, which makesthe task of definingtheir structure verydifficult. Deep learning methods have already shown very promising results in such challenges, so this chapter focuses on the presentation of some popular approaches and techniques applied in image-based food recognition. The three main lines of solutions, namely the design from scratch, the transfer learning and the platform-based approaches, are outlined, particularly for the task at hand, and are tested and compared to reveal the inherent strengths and weaknesses. The chapter is complemented with basic background material, a section devoted to the relevant datasets that are crucial in light of the empirical approaches adopted, and some concluding remarks that underline the future directions.

II. SYSTEM ANALYSIS & FEASIBILITY STUDY

Existing Method:

This model emphasizes an existing method that which is designed using the some of the algorithms of Machine learning. Here the process is performed using the SVM and ANN which is one of the transfer learning methods, but this could not get the high accuracy.
Disadvantages:

- Less feature compatibility
- Low accuracy

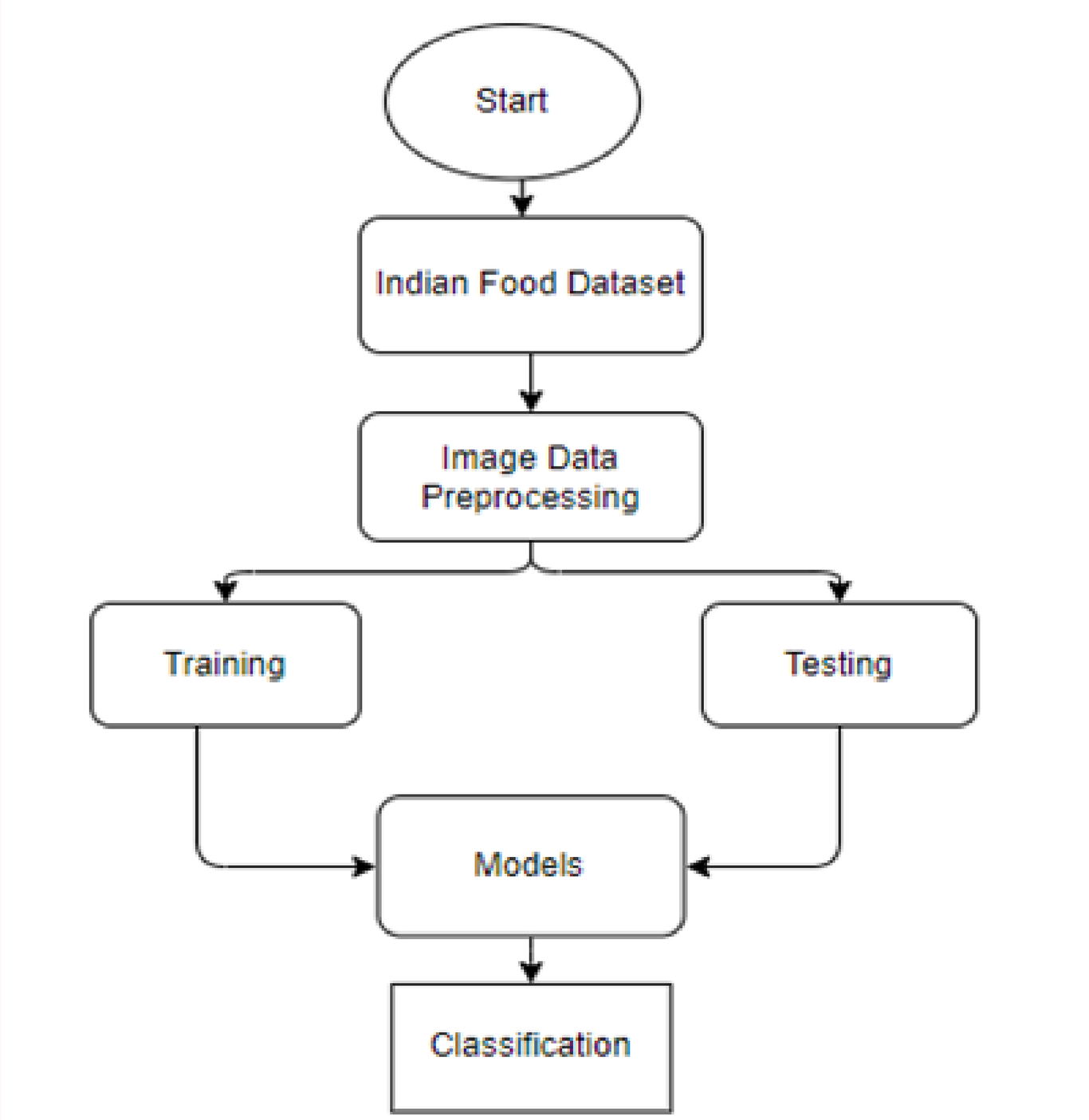
Proposed System:

In purposed method we are performing the classification of either the Dish identification using Mobile Net and Efficient Net of deep learning along with the Transfer learning methods. As image analysis based approaches for detecting and Nutrition. Hence, proper classification is important for the proper nutrition that which will be possible by using our proposed method. Block diagram of proposed method is shown below.

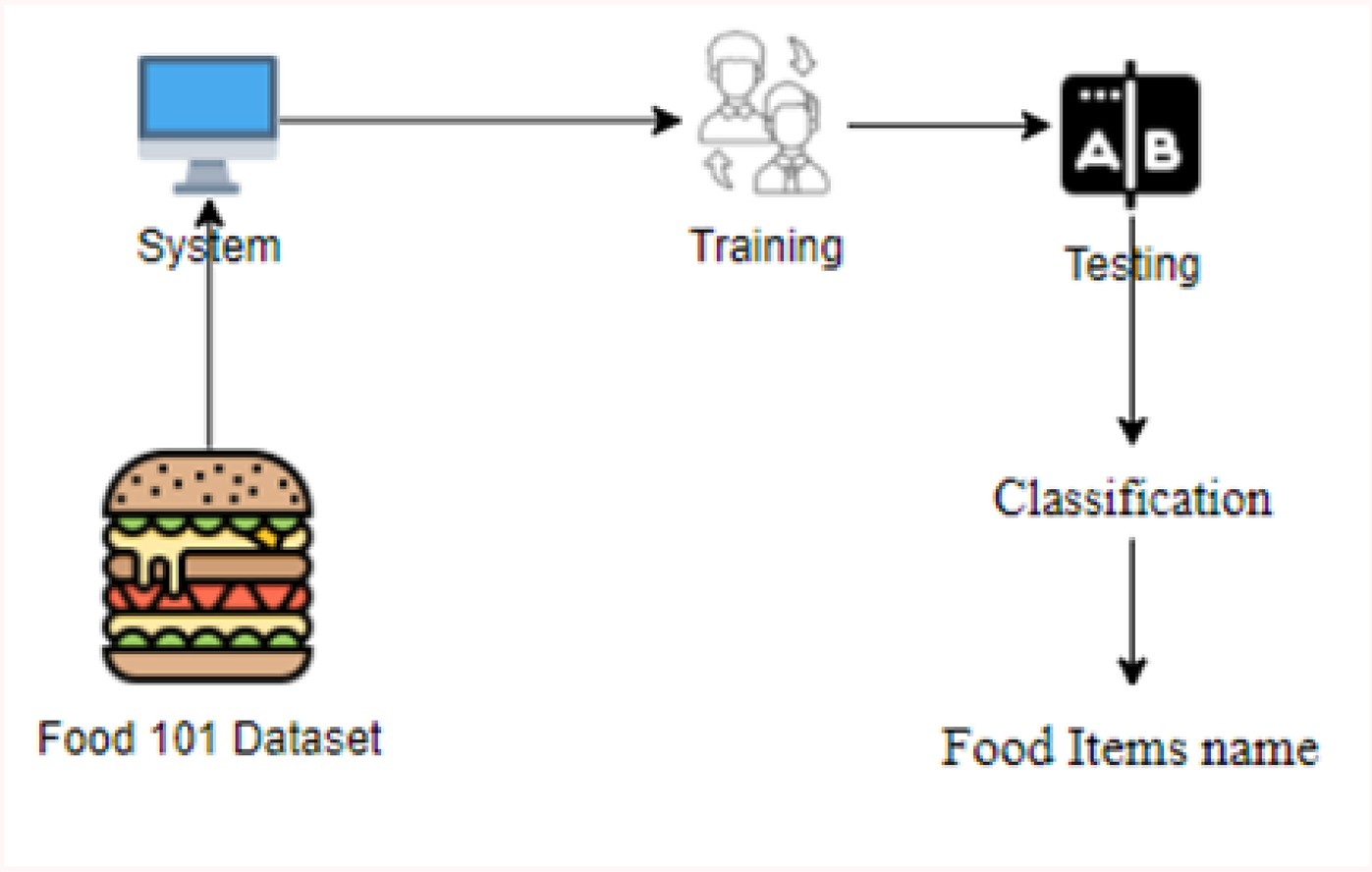
Advantages

- Accurate classification
- Less complexity
- High performance
- Easy Identification

III. BLOCK DIAGRAM



ARCHITECTURE



IV. MODULES:

SYSTEM
USER

1. System:

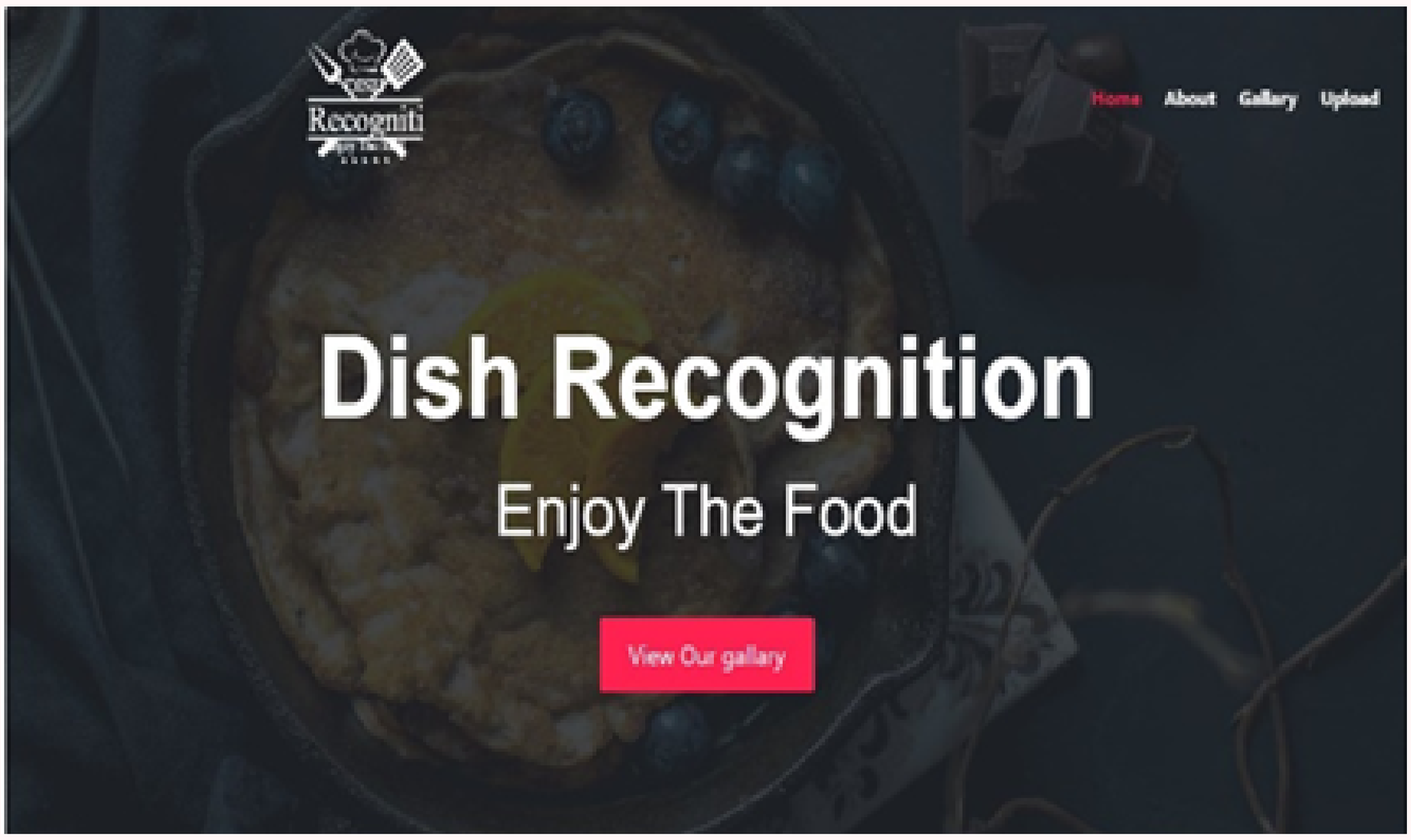
1.1 Create Dataset:
The dataset containing images of the Dish classification images with the Classification i.e., Dish, nutrition and ingredients prediction are to be classified is split into training and testing dataset with the test size of 30-20%.
1.2 Pre-processing:
Resizing and reshaping the images into appropriate format to train our model.
1.3 Training:
Use the pre-processed training dataset is used to train our model using CNN Deep learning along with Mobile Net and Efficient Net transfer learning methods.
1.4 Classification:
The results of our model are display of Dish classification images are either with different labels and Details

2. User:

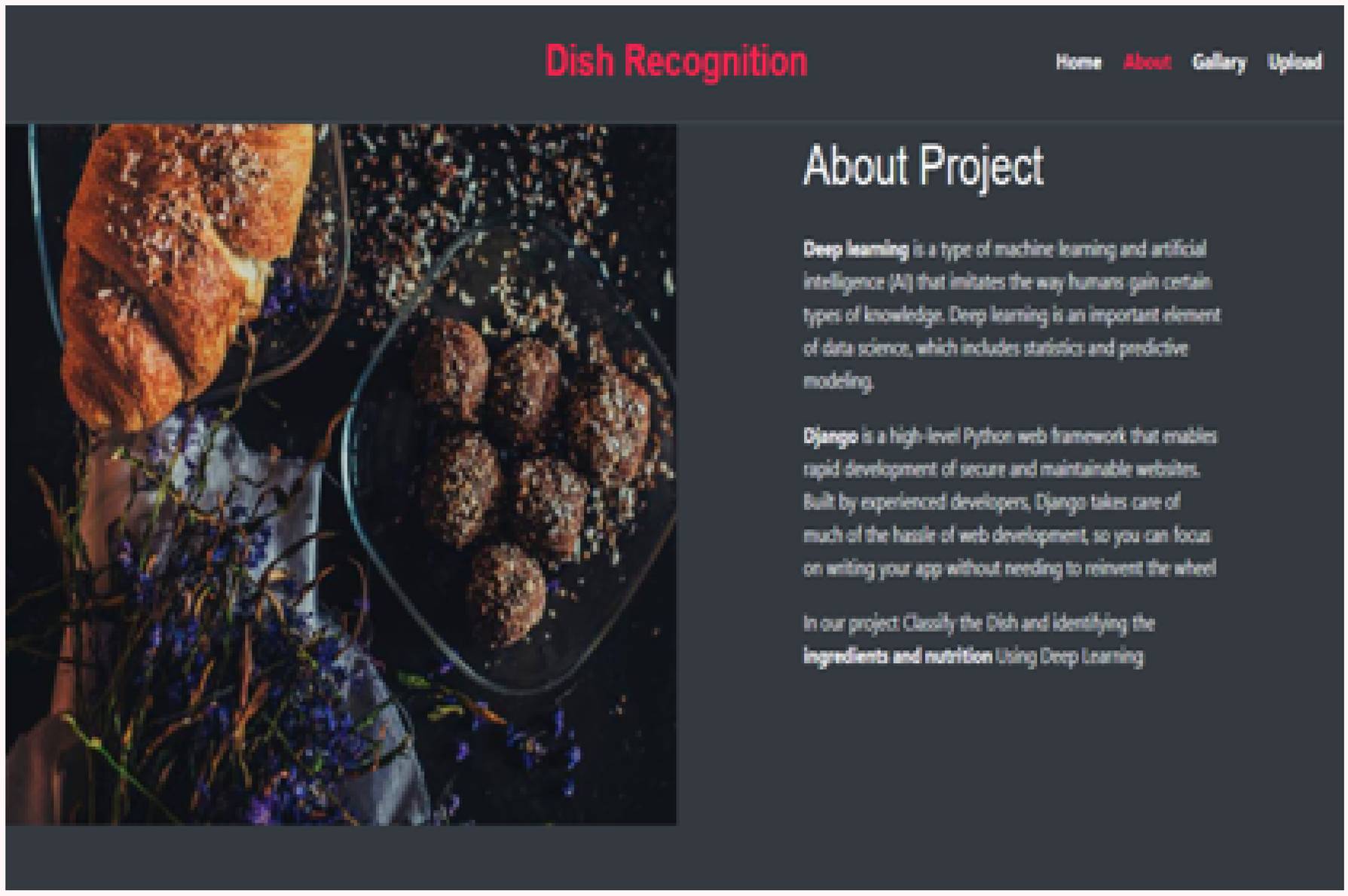
2.1 Upload Image
The user has to upload an image which needs to be classified.
2.2 View Results
The classified image results are viewed by user.

V. OUTPUT SCREEN SHOTS WITH DESCRIPTION.

Home: In our project, we are classifying the presence of Dish Recognition, with the help of deep learning and transfers learning.



About Page



BY

Mrs. V. Swarna

Assistant Professor

DHANEKULA
INSTITUTE OF ENGINEERING & TECHNOLOGY

I BELIEVE, I CAN

This is the logo which make me proud. It designed in the IBIC logo design competition. I specially thank to my mentor Prabitha Ganesh who make special in front of you and thanks to my father and my friends who helps to design this logo.

~ KOSURI YASASWI VYSHNAVI (CSE-III)

Description:

The trencher (Unique hat) which is on the letter ' I ' gives a wonderful meaning about "Mentorship", That is every women is a mentor, who pilot herself and others for bright future.

The women logo which is at the left side of the letter 'I' represents "Women Empowerment" and the sparks comes from the women shows a best way to others, who are not able to reach the destiny.

The two hands below the letter ' I ' represents that a women can hold the weight and responsibilities of family and career, on the other side the hands shape the stones into the unique beautiful idols with bright future and handful of experience.

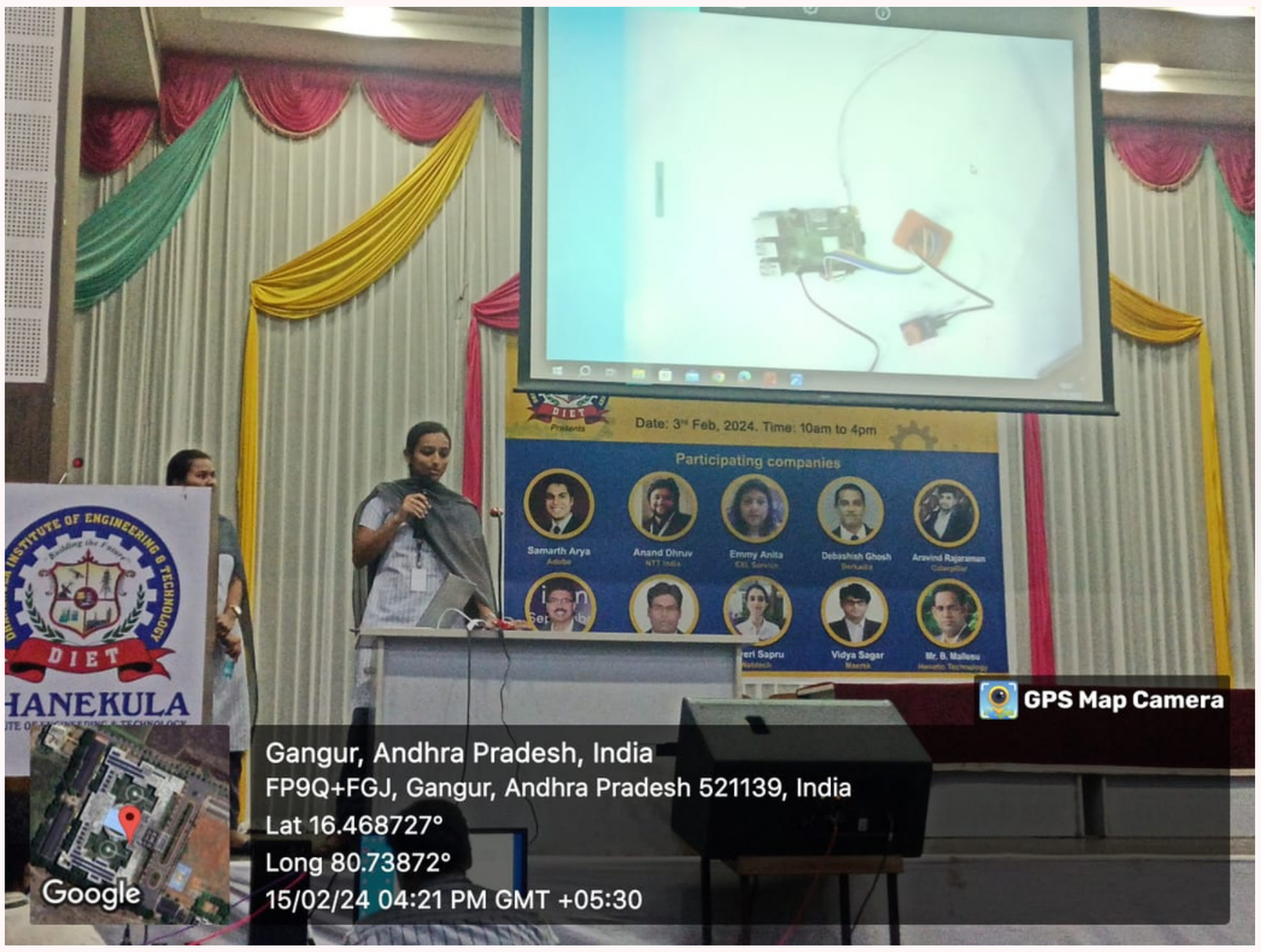
The helping hands of every women help others make to improve in their life style and improvement of growth in career.

Let us come to our moto "I Believe I Can". If a women think that I believe I can then she will do anything and everything and become a successful person

09-02-2024

Our students from diet have participated in Kabaddi in a fest conducted by QIS and won 2nd prize

15-02-2024



PROJECT EXPO

DHANEKULA
Institute of Engineering and Technology

Approved by AICTE, Affiliated to JNTUK, An ISO-9001 Certified Institute

AUTONOMOUS

DEPARTMENT OF
COMPUTER ACIENCE AND ENGINEERING

Dr. NAGARAJU BAYDETI
ASSISTANT PROFESSOR
NIT NAGALANDR

A TWO-WEEK ADDON CERTIFICATION COURSE ON
"FOUNDATIONS OF DATA SCIENCE USING PYTHON"

DATA SCIENCE
USING PYTHON

CONVENOR

DR. K. SOWMYA, PROFESSOR & HOD OF CSE

CO-ORDINATOR

MRS. L.N.B JYOSTNA, ASSISTANT PROFESSOR
MR. K. SRIKANTH, ASSISTANT PROFESSOR
DEPARTMENT OF CSE.

26 FEB
TO
12 MAR

9:30AM
TO
4:30PM

CSE
LABS

15-02-2024

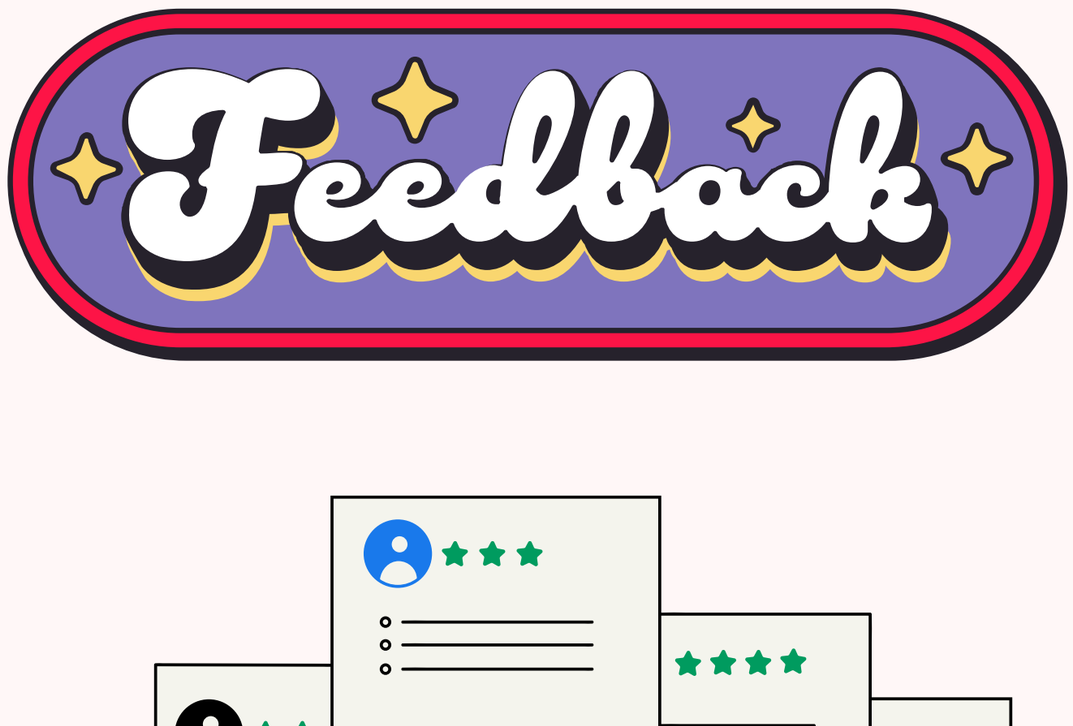
24-02-2024

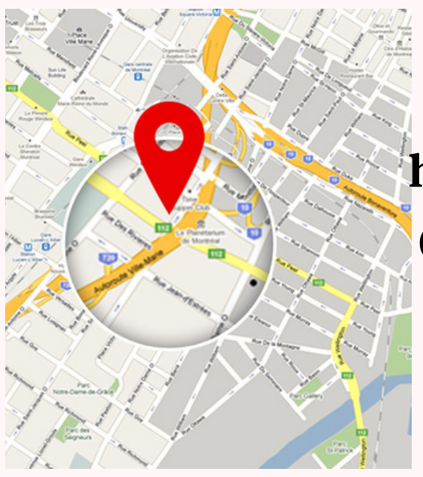
Students Achievements

Kabaddi Winners!

you can send your feedback as well as articles to the below mail provided

mail id:newslettercsediet@gmail.com





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Mrs. Srivalli

Mrs. V. Swarna