IT-Digest

IT DIGEST

JANUARY, 2026

Department of IT

Meerut Institute of Engineering and Technology
NH 58, Delhi-Roorkee Highway, Baghpat Bypass Road Crossing,
Meerut, Uttar Pradesh 250005

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Meerut Institute of Engineering and Technology
NH 58, Delhi-Roorkee Highway, Baghpat Bypass Road Crossing,
Meerut, Uttar Pradesh 250005

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About the Program

About the Program

Information Technology (IT) is a broad subject which deals with technology and other aspects of managing and processing information. The umbrella of IT incorporates multiple technological aspects of computing. IT has changed the way of our life and the pace of change is very fast. This scenario is giving us new opportunities invaried domains. To continuously learn and grasp new technologies is a real challenge for IT professionals. Creating such professionals that take up this challenge and rise to the apex is our goal. Department also containswell qualified faculties with M.E. / M. Tech .They are technically and practically sound in various fields. The Department offers a unique combination of courses and project that helps the students to cope with the recent advancements in the computer industry and information technology. We are committed to give students an environment to nurture their talent in to its fullest potential. This is achieved by experienced faculty members, year round conduction of numerous seminars, guest lectures, and industry academia interaction, co-curricular & extra-curricular activities.

Vision

To become a prominent department in nation which provides quality education, keeping pace with rapidly changingtechnologies; and to create technical graduates of global standards, who develop capabilities of accepting new challenges in the field of Information Technology.

Mission

- To provide quality education in the core and applied areas of Information Technology, and developstudents from all socio-economic levels into globally competent professionals.
- To impart professional ethics, social responsibilities, moral values and entrepreneur skills to the students
- To invigorate students skills so that they deploy their potential in research and development, and inculcate the habit of lifelong learning.

Program Educational Objectives

- To produce graduates who pursue careers as: IT engineers in the field of software and allied sectors or; advanced studies in computational and other professional fields or; entrepreneur in related or other field.
- To produce graduates who have ability to adhere with standard & latest practices, methodologies, tools and technologies and; exhibit commitment to self-learning.
- To produce graduates who are able to provide solutions of problems on pilot or real scale and; to demonstrate an ability to comprehend, analyze, design and create software, component or product and system within realistic economic, social and ethical constraints.
- To produce graduates who are capable of exhibiting effective communication in a multilingual setting and can work in multi-disciplinary team in different roles and capacities.
- To produce graduates who are ethically strong, aspire to inculcate factors of safety while designingsystem that facilitate environment friendly solutions with legal aspect

Program Specific Outcomes

- **PSO-1:** Ability to apply and analyses computational concepts in the areas related to algorithms, machine learning, cloud computing, web designing and web services.
- **PSO-2:** Ability to apply standard practices and methodologies in software development and project management.
- **PSO-3:** Ability to employ fundamental concepts and emerging technologies for innovative research activities, carrier opportunities & zeal for higher studies.

Director's Message

At MIET College, we strongly believe that the holistic development of students is best achieved by emphasizing two core areas: concept-based learning and comprehensive industrial exposure.

We offer a 360-degree nurturing ecosystem that fosters overall grooming and equips our students with the global competencies required in today's dynamic world. Our commitment to academic excellence and innovation in teaching and learning has consistently helped us maintain high educational standards, while proactively working to bridge the gap between academia and industry.

With the rapid evolution of technology, it is essential for academic institutions to stay aligned with the ever-changing needs of the industry. Understanding these requirements, we ensure that our students are trained and groomed accordingly.

Our institution takes pride in its dedicated efforts towards this mission. We have established multiple state-of-the-art laboratories, Centres of Excellence (CoEs), and Advanced R&D Labs, and have signed numerous MoUs with leading industries at both college and departmental levels. These Centres of Excellence serve as corporate training hubs for reputed organizations.

Students are offered a cohesive platform to engage in live, industry-based projects and gain hands-on training in both core engineering and IT domains. Our objective is to bring out the best in every student through practical exposure and continuous mentoring.

We are proud of our world-class infrastructure and a team of dedicated, highly qualified faculty and staff. Their unwavering commitment ensures the comprehensive development of our students, preparing them to become not only successful professionals but also empathetic and responsible human beings.

Prof. (Dr.) S.K. Singh
Director

HOD's Message

It gives me immense pleasure to introduce the Department of Information Technology — a vibrant hub of innovation, academic excellence, and holistic development. At Team IT, our mission is to nurture future-ready professionals equipped with technical expertise, creative thinking, and a strong ethical foundation.

We are committed to the following objectives:

- **Outcome-Based and Skill-Oriented Education:**
- Delivering a balanced curriculum that integrates theoretical foundations with practical experience, live projects, and exposure to key domains like Artificial Intelligence, Machine Learning, and Cybersecurity.
- **Industry Collaboration and Innovation:**
- Partnering with top tech companies and research institutions to offer real-world learning, while encouraging faculty and students to engage in research, publications, and cutting-edge developments.
- **Mentorship and Holistic Development:**
- Supporting students through a structured Mentor-Mentee system, fostering academic excellence, career readiness, and active participation in co-curricular and extracurricular activities.
- **Infrastructure and Faculty Growth:**
- Providing access to advanced labs and learning resources while promoting continuous faculty development through FDPs, workshops, and collaborative initiatives.
- **Achievements and Placements:**
- Showcasing success through our bi-annual magazine Insight IT, and maintaining a strong placement record with students securing roles in leading IT industries and startups.

Dr. Swati Sharma
Prof. & Head (IT)

Placement Record

Top 3 Highest Placement

2025-26

3.6 LPA
SAHIL SHARMA

4.0 LPA
ARJUN

4.5 LPA
RAJ MALIK

Our Top Recruiters

STUDENTS ACHIEVEMENTS

Discover our student's incredible achievements! Dive in now for a glimpse into innovation and success. Don't miss out – join us on the journey to excellence!

Meerut Institute of Engineering and Technology
NH 58, Delhi-Roorkee Highway, Baghpat Bypass Road Crossing,
Meerut, Uttar Pradesh 250005

STUDENTS ACHIEVEMENTS

S.No	Roll No.	Name of the student	Name of the event/activity	Sports/ Cultural/Any Other	PARTICULAR
1	2200680130038	NIKHIL TIWARI	INTERNSHIP	Technical	GAOtek
2	2100680130047	SHIVAM CHAUHAN	skill certificate	Technical	Hackerrank
3	2100680130021	DEVANSHU CHAUHAN	INTERNSHIP	Technical	SOFTPRO
4	2100680130057	VINEET PANWAR	INTERNSHIP	Technical	SOFTPRO
5	2100680130046	SATYAM GOYAL	course	Technical	CISCO
6	2100680130046	SATYAM GOYAL	COURSE	Technical	INFOSYS
7	2100680130046	SATYAM GOYAL	INTERNSHIP	Technical	TCSion
8	2100680130046	SATYAM GOYAL	Virtual INTERNSHIP	Technical	EDUSKILLS

STUDENTS
ACHIEVEMENTS

GAO Tek Inc.

Internship Offer Letter

Certificate of Accomplishment

Java (Basic)

PRESENTED TO

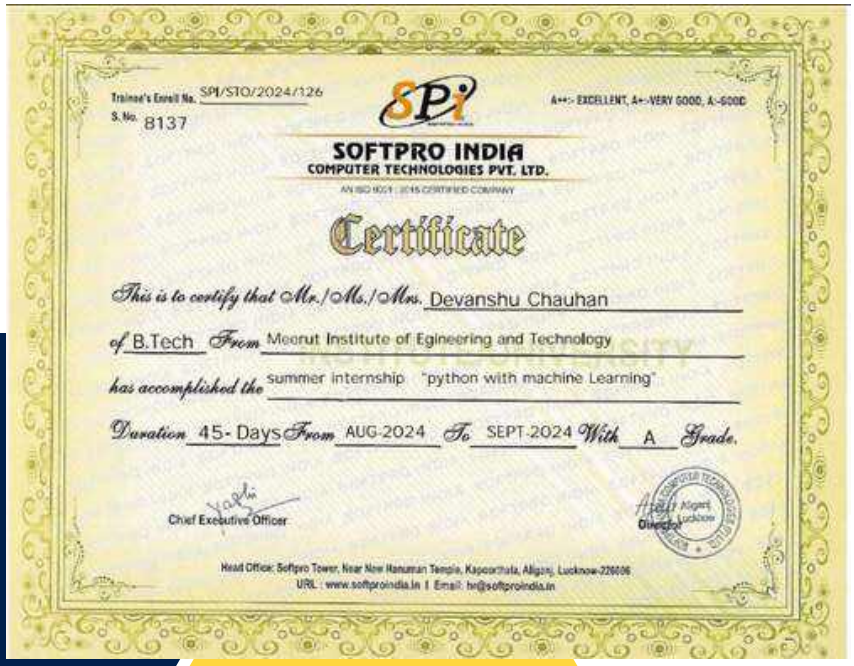
Shivam Chauhan

The bearer of this certificate has passed the HackerRank skill certification test

Earned on: 02 Oct, 2024

Harishankaran K

CTO, HackerRank



Trainee's Enroll No. SPI/STO/2024/126
S. No. 8137

SOFTPRO INDIA
COMPUTER TECHNOLOGIES PVT. LTD.

Certificate

This is to certify that Mr./Ms./Mrs. Devanshu Chauhan
of B.Tech From Meerut Institute of Egineering and Technology
has accomplished the summer internship "python with machine Learning"
Duration 45- Days From AUG-2024 To SEPT-2024 With A Grade.

Chief Executive Officer

Director

Head Office: Softpro Tower, Near New Hanuman Temple, Kapoorthala, Aliganj, Lucknow-226006
URL : www.softproindia.in | Email: hr@softproindia.in

NATIONAL INTERNSHIP PORTAL

EduSkills

Certificate of Virtual Internship

This is to certify that

Satyam goyal

Meerut Institute of Engineering & Technology

has successfully completed 10 weeks

Generative AI Virtual Internship

During July - September 2024

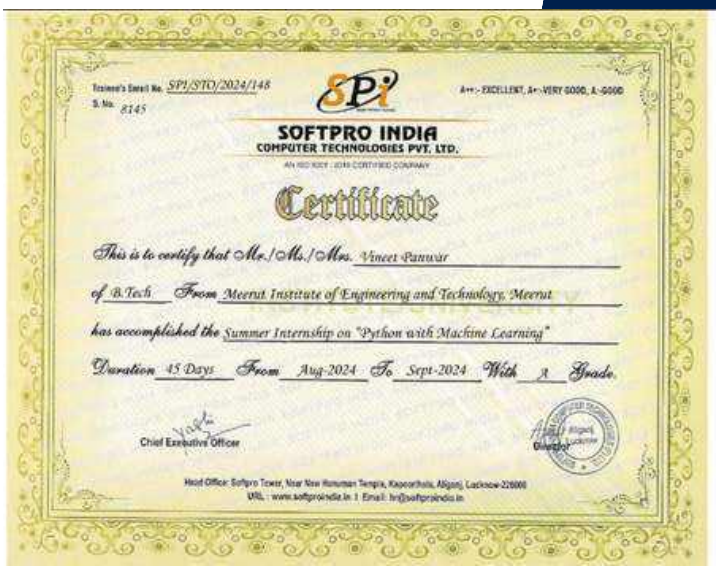
Curriculum Provided by:

Google Cloud

Shri Buddha Chandrasekhar
Chief Coordinating Officer (CCO)
NEAT GoI, AICTE

Dr. Satya Ranjan Biswal
Chief Technology Officer (CTO)
EduSkills

STUDENTS
ACHIEVEMENTS



RECORDS & PUBLICATIONS

S.no	TITLE OF PAPER	First /Second AUTHOR NAME	DESIGNATION	JOURNAL NAME
1	AI Virtual Mouse	Dr. Swati Sharma	Professor	International Journal for Reseaech in Applied Science & Engineering Technology (IJRASET)
2	Enhanced Helmet Detection in Surveillance Systems with YOLOv6 for Accident Prevention and Safety Compliance	Dr. Swati Sharma	Professor	Journal of Scientific and Industrial Reserch
3	Performance Estimation of Dual-Halo Dual-Material Silicon-On-Insulator with High K Dielectrics for Low Power Applications	Dr. Swati Sharma	Professor	Journal of Engineering Science and Technology Review
4	Electric Scooty Purchasing Recommendations Using Customer Review	Ms.Shobha Chaudhary	Assistant Professor	STM Journals
5	Stock Market Prediction System	Ms.Aarti Verma	Assistant Professor	International journal of engineering development and research(IJEDR)
6	Used Car Price Prediction Using One Hot Encoding	Rakesh Sambyal	Assistant Professor	Journal/(International Journal for Multidisciplinary Research (IJFMR))
7	A review of blockchain based security and authentication systems	Dr. Swati Sharma	Professor	International Journal for Research in Applied Science & Engineering Technology (IJRASET)
8	Benchmarking Machine learning algorithm for twitter sentiment prediction	Mr. Rahul Shivhare	Assistant Professor	International Journal of Innovative Research in Technology
9	Real Time NLP Integration: Advancing Accuracy and Productivity in Word Processing	Mr. Mohit Agarwal	Assistant Professor	International Scientific Journal of Engineering and Managment
10	IoT-based Crop Rcommendation System Using NPK sensor	Mr.Rajesh Thakur	Assistant Professor	International Journal of Innovative Research in Technology (IJIRT)

RECORDS & PUBLICATIONS

S.no	TITLE OF PAPER	First /Second AUTHOR NAME	DESIGNATION	JOURNAL NAME
11	Implementation and Design of a Python- Based Voice Assistant for Seamless User Interaction	Mr.Rajesh Thakur	Assistant Professor	International Journal of Novel Research and Development (IJNRD)
12	A Review of Deep Learning Models for Blood Cancer Detection	Mr. Peeyush Tomar	Assistant Professor	International Journal for Reseaech in Applied Science & Engineering Technology (IJRASET)
13	Genetic Algorithm Based Determinstic Workflow Scheduling with load balancing	Dr. Swati Sharma	Professor	IEEE International Conference
14	Comparative study of deep learning architectures for brain tumor classification	Dr. Swati Sharma	Professor	International Journal for Research in Applied Science & Engineering Technology (IJRASET)
15	Object Detection Using Deep Learning	Ms.Aarti Verma	Assistant Professor	Tuijin Jishu/Journal of Propulsion Technology
16	Autonomous Navigation Using Deep Learning	Mr. Rahul Singh	Assistant Professor	International Journal for Reseaech in Applied Science & Engineering Technology (IJRASET)
17	Thyroid Cancer Prediction using Optimizations	Dr. Swati Sharma	Professor	AI-Based Advanced Optimization Techniques for Edge Computing
18	Facial expression emotion recognition	Dr. Swati Sharma	Professor	International Journal for Research in Applied Science & Engineering Technology (IJRASET)
19	Social Media Monitoring Platform Jodview	Ms.Shobha Chaudhary	Assistant Professor	International Journal for Multidisciplinary Research (IJFMR)
20	CapsNet-based Precise and Rapid Traffic Sign Detection through AI in Adverse Environmental Scenarios	Dr. Swati Sharma	Professor	Journal of Scientific & Industrial Research

RECORDS & PUBLICATIONS

VIRTUAL MOUSE USING HAND GESTURE

Shreya Sharma (Student)[1], Mr. Ajay Kumar (Assistant Professor, MIET)[2]
Anushka Tyagi (Student)[3], Sahil Sharma (Student)[4]
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Email: [3]Department of Information Technology, Meerut Institute of Engineering and Technology, Meerut, India
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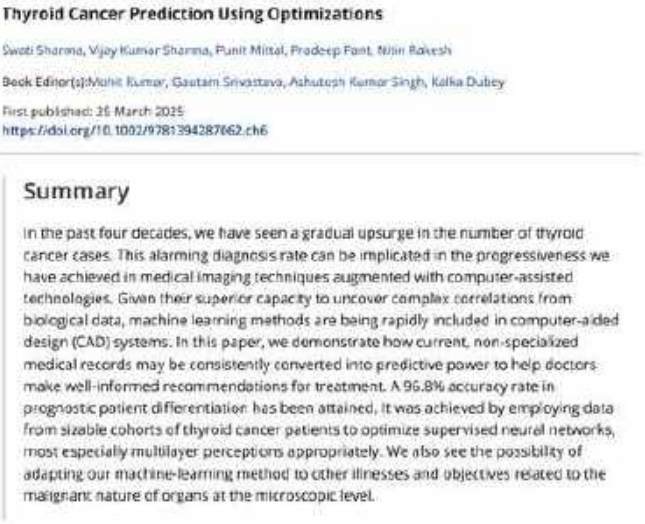
Email:

ABSTRACT – A "Virtual Mouse Using Hand Gesture" system is an advanced version of computer vision algorithms to translate hand movements captured by a camera to move mouse cursor actions on the desktop such as left click, right click, folder open, dragging, etc. It allows user to navigate and interact with their devices naturally through gestures. This paper reviews the methodologies, algorithms and hardware employed in the development of virtual mouse. The advancement of Human-PC Communication (HCI) has presented creative and natural ways to deal with interacting with innovation. One such progression is the advancement of virtual mouse frameworks using hand motions, which expect to supplant customary info gadgets like actual mice.

Keywords— *virtual mouse, hand gesture, computer vision algorithms, mouse cursor actions, human-computer interaction, gesture-based interaction, input devices, natural interaction, hand motion recognition, human-PC communication.*

1. INTRODUCTION

Human-PC Connection (HCI) is a quickly developing field, with critical steps being made in the improvement of additional natural and normal approaches to cooperating with gadgets. Customary info gadgets like the mouse and console, while successful, present impediments in unambiguous settings, like availability for people with handicaps or in touch-less conditions. The idea of a virtual mouse, controlled utilizing hand motions, addresses a change in perspective in how clients communicate with PCs. By using PC vision and AI innovations, a virtual mouse can offer a consistent and instinctive option in contrast to actual info gadgets. This paper investigates the ongoing progressions in virtual mouse frameworks utilizing hand motions, featuring their plan, advancement, and applications.



Thyroid Cancer Prediction Using Optimizations

Swati Sharma, Vijay Kumar Sharma, Punit Mittal, Pradeep Pant, Nitin Rakesh

Book Editor(s):Mohit Kumar, Gautam Srivastava, Ashutosh Kumar Singh, Kalka Dubey

First published: 26 March 2025
https://doi.org/10.1002/9781394287642.ch6

Summary

In the past four decades, we have seen a gradual upsurge in the number of thyroid cancer cases. This alarming diagnosis rate can be implicated in the progressiveness we have achieved in medical imaging techniques augmented with computer-assisted technologies. Given their superior capacity to uncover complex correlations from biological data, machine learning methods are being rapidly included in computer-aided design (CAD) systems. In this paper, we demonstrate how current, non-specialized medical records may be consistently converted into predictive power to help doctors make well-informed recommendations for treatment. A 96.8% accuracy rate in prognostic patient differentiation has been attained. It was achieved by employing data from sizable cohorts of thyroid cancer patients to optimize supervised neural networks, most especially multilayer perceptions appropriately. We also see the possibility of adapting our machine-learning method to other illnesses and objectives related to the malignant nature of organs at the microscopic level.

International Scientific Journal of Engineering and Management (ISJEM) ISSN: 2583-6129
Volume: 04 Issue: 05 | May – 2025 DOI: 10.55041/ISJEM03056
An International Scholarly | Multidisciplinary | Open Access | Indexing in all major Database & Metadata

Role of Data Fusion on Customer Profiling and their Lifetime in Retail Sector and it's Performance Evaluation.

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Meerut Institute of Engineering and Technology, Meerut UP, India Pin-250005 rohit.singh@miet.ac.in

Abstract- Being profitable was a crucial goal for the banking sector's long-term prosperity, and building solid, enduring connections with customers is largely dependent on their level of satisfaction. Through the analysis of buyer information, companies could offer customized services. Banks may improve customer experiences, personalize their product lines, and locate growth possibilities through the use of data analysis methods. The accomplishment of managing client relationships (CRM), which permits ongoing client development and retention, depends on customer classification and profiles. By employing these tactics, banks can increase their clientele, offer personalized products, make money, and maximize cross-selling and up-selling campaigns.

Keywords: *K-means clustering, hierarchical clustering, data mining, customer profiles, lifetime value and RFM analysis.*

I Introduction

Understanding consumer behaviour and preferences is crucial for business expansion in the cutthroat retail industry. This project looks at how data fusion enhances lifecycle value estimation and customer segmentation in the retail sector. It investigates how combining various data sources can:

- Improve customer profiles' accuracy and comprehensiveness.
- Make prediction models for lifetime value estimation stronger. Enhance mar- keting tactics

International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

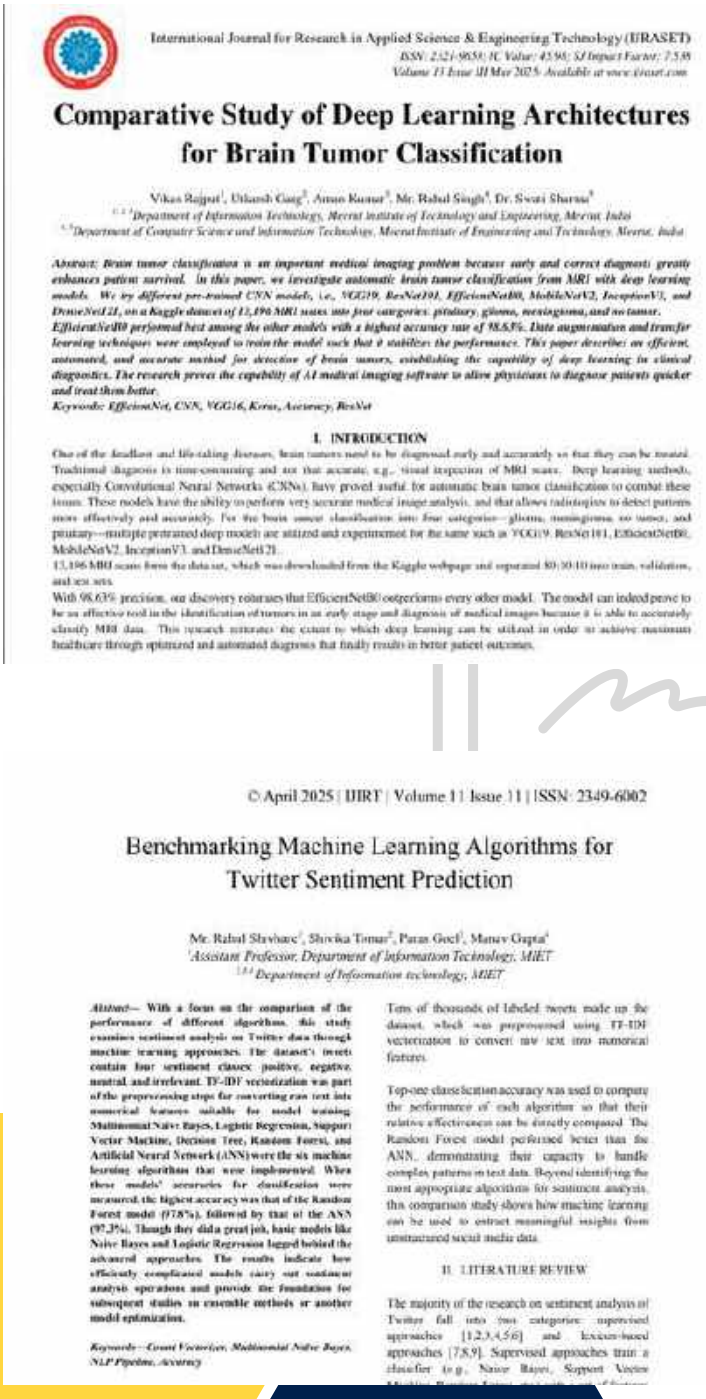
Social Media Monitoring Platform Jodview

Pranav Singh[1], Shobha Chaudhary[2], Pranav Gaur[3], Amit Kumar[4]

[1,2,3,4]Department Of Information Technology, Meerut Institute Of Engineering And Technology, Meerut, India

Abstract
The widespread adoption of social media has reshaped digital communication, enabling users to connect, share, and engage on a global scale. However, this rise in online interaction has also brought challenges, particularly the unchecked spread of violent and harmful content. In response, this project introduces a Social Media Content Monitoring System designed to collect and evaluate data—primarily from Twitter—to distinguish between violent and non-violent content. At its core, the system utilizes a powerful AI model, specifically the 'bert-base-multilingual-uncased-sentiment', known for its proficiency in understanding and analyzing multilingual text to determine sentiment.
The platform is developed using a comprehensive technology stack: Python powers data collection and machine learning operations due to its vast library support and data science capabilities; Node.js handles backend services for fast, scalable processing and API management; React delivers a dynamic and intuitive user interface; and MongoDB is used to store and manage large volumes of unstructured social media data.
The process begins with the real-time extraction of tweets via Twitter's API, guided by relevant hashtags and keywords. Collected tweets are cleaned and processed to prepare them for sentiment analysis. The AI model then evaluates each post, classifying it based on its potential to incite or reflect violence. By offering continuous, real-time monitoring across multiple languages, the platform not only curbs the spread of harmful content but also promotes a safer, more responsible online environment.

RECORDS & PUBLICATIONS



International Journal for Research in Applied Science & Engineering Technology (IJRASET)
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Volume 13 Issue III Mar 2025 Available at www.ijraset.com

Comparative Study of Deep Learning Architectures for Brain Tumor Classification

Vikas Rajput[1], Utkarsh Garg[2], Aman Kumar[3], Mr. Rahul Singh[4], Dr. Swati Sharma[5]
[1, 2, 3]Department of Information Technology, Meerut Institute of Technology and Engineering, Meerut, India
[4, 5]Department of Computer Science and Information Technology, Meerut Institute of Engineering and Technology, Meerut, India

Abstract: *Brain tumor classification is an important medical imaging problem because early and correct diagnosis greatly enhances patient survival. In this paper, we investigate automatic brain tumor classification from MRI with deep learning models. We try different pre-trained CNN models, i.e., VGG19, ResNet101, EfficientNetB0, MobileNetV2, InceptionV3, and DenseNet121, on a Kaggle dataset of 13,196 MRI scans into four categories: pituitary, glioma, meningioma, and no tumor. EfficientNetB0 performed best among the other models with a highest accuracy rate of 98.63%. Data augmentation and transfer learning techniques were employed to train the model such that it stabilizes the performance. This paper describes an efficient, automated, and accurate method for detection of brain tumors, establishing the capability of deep learning in clinical diagnostics. The research proves the capability of AI medical imaging software to allow physicians to diagnose patients quicker and treat them better.*

Keywords: *EfficientNet, CNN, VGG16, Keras, Accuracy, ResNet*

I. INTRODUCTION

One of the deadliest and life-taking diseases, brain tumors need to be diagnosed early and accurately so that they can be treated. Traditional diagnosis is time-consuming and not that accurate, e.g., visual inspection of MRI scans. Deep learning methods, especially Convolutional Neural Networks (CNNs), have proved useful for automatic brain tumor classification to combat these issues. These models have the ability to perform very accurate medical image analysis, and that allows radiologists to detect patients more effectively and accurately. For the brain tumor classification into four categories—glioma, meningioma, no tumor, and pituitary—multiple pretrained deep models are utilized and experimented for the same such as VGG19, ResNet101, EfficientNetB0, MobileNetV2, InceptionV3, and DenseNet121.

13,196 MRI scans from the data set, which was downloaded from the Kaggle webpage and separated 80/10/10 into train, validation, and test sets.

With 98.63% precision, our discovery reiterates that EfficientNetB0 outperforms every other model. The model can indeed prove to be an effective tool in the identification of tumors in an early stage and diagnosis of medical images because it is able to accurately classify MRI data. This research reiterates the extent to which deep learning can be utilized in order to achieve maximum healthcare through optimized and automated diagnosis that finally results in better patient outcomes.

International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

A Review Bearmath Bearing Fault Diagnostics Using Machine Learning

Aayushi Chaudhary[1], Arjun Thakur[2], Ishan Chandra Joshi[3]

[1,2,3]Dept. of IT Meerut Institute Of Engineering and Technology Uttar Pradesh, India

Abstract

Condition monitoring, predictive maintenance, and intelligent fault diagnosis are important for the reliability of rotating machinery and industrial systems. Traditional fault detection methods have been greatly enriched by the recent development of deep learning and advanced signal processing techniques, which harness powerful reactionists, such as CNNs, recurrent architectures, and transfer learning for fail-safe and adaptive fault identification. This review provides a systematic survey of this transition from classical machine condition monitoring approaches (like wavelet transforms and spectral analysis) to modern data-driven deep learning schemes. Drawing on an extensive array of methodologies, such as convolutional and generative adversarial networks (GANs), domain adaptation, and hybrid models that combine deep learning with time- frequency representations for enhanced accuracy and generalization, we do a deep dive into the various methods of approach. Emphasis is placed on bearing fault detection, a crucial theme of rotating machinery health monitoring, encompassing a review of the Case Western Reserve University (CWRU) bearing dataset and further benchmark datasets for training and validation. Lastly, we present the challenges/gaps and future research directions, calling for the need for more generalized, interpretable, real-world applicable fault diagnosis models.

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Benchmarking Machine Learning Algorithms for Twitter Sentiment Prediction

Mr. Rahul Shrivastava[1], Shrishti Tomar[2], Param Goel[3], Manav Gupta[4]
[1]Assistant Professor, Department of Information Technology, MIET
[2,3,4]Department of Information technology, MIET

Abstract **— With a focus on the comparison of the performance of different algorithms, this study examines sentiment analysis on Twitter data through machine learning approaches. The dataset's tweets contain four sentiment classes: positive, negative, neutral and irrelevant. TF-IDF vectorization was part of the preprocessing steps for converting raw text into numerical features suitable for model training. Multinomial Naive Bayes, Logistic Regression, Support Vector Machine, Decision Tree, Random Forest, and Artificial Neural Network (ANN) were the six machine learning algorithms that were implemented. When these models' accuracies for classification were measured, the highest accuracy was that of the Random Forest model (97.8%), followed by that of the ANN (97.3%). Though they did a great job, basic models like Naive Bayes and Logistic Regression lagged behind the advanced approaches. The results indicate how efficiently complicated models carry out sentiment analysis operations and provide the foundation for subsequent studies on ensemble methods or another model optimization.**

Keywords **—** ***Count Vectorizer, Multinomial Naive Bayes, NLP Pipeline, Accuracy***

Tens of thousands of labeled tweets made up the dataset, which was preprocessed using TF-IDF vectorization to convert raw text into numerical features.

Top-one classification accuracy was used to compare the performance of each algorithm so that their relative effectiveness can be directly compared. The Random Forest model performed better than the ANN, demonstrating their capacity to handle complex patterns in text data. Beyond identifying the most appropriate algorithms for sentiment analysis, this comparison study shows how machine learning can be used to extract meaningful insights from unstructured social media data.

II. LITERATURE REVIEW

The majority of the research on sentiment analysis of Twitter fall into two categories: supervised approaches [1,2,3,4,5,6] and lexicon-based approaches [7,8,9]. Supervised approaches train a classifier (e.g., Naive Bayes, Support Vector

International Journal for Multidisciplinary Research (IJFMR)
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A Review Bearmath Bearing Fault Diagnostics Using Machine Learning

Aayushi Chaudhary[1], Arjun Thakur[2], Ishan Chandra Joshi[3]

[1,2,3]Dept. of IT Meerut Institute Of Engineering and Technology Uttar Pradesh, India

Abstract

Condition monitoring, predictive maintenance, and intelligent fault diagnosis are important for the reliability of rotating machinery and industrial systems. Traditional fault detection methods have been greatly enriched by the recent development of deep learning and advanced signal processing techniques, which harness powerful reactionists, such as CNNs, recurrent architectures, and transfer learning for fail-safe and adaptive fault identification. This review provides a systematic survey of this transition from classical machine condition monitoring approaches (like wavelet transforms and spectral analysis) to modern data-driven deep learning schemes. Drawing on an extensive array of methodologies, such as convolutional and generative adversarial networks (GANs), domain adaptation, and hybrid models that combine deep learning with time- frequency representations for enhanced accuracy and generalization, we do a deep dive into the various methods of approach. Emphasis is placed on bearing fault detection, a crucial theme of rotating machinery health monitoring, encompassing a review of the Case Western Reserve University (CWRU) bearing dataset and further benchmark datasets for training and validation. Lastly, we present the challenges/gaps and future research directions, calling for the need for more generalized, interpretable, real-world applicable fault diagnosis models.

FACULTY DEVELOPMENT PROGRAM

S.No.	Name of faculty	Title of the program	Duration (DD-MM-YYYY) FROM -TO
1	Mr.Peeyush tomar	Artificial Intelligence Foundation Certification	Mar 5, 2025
2	Mr.Peeyush tomar	Artificial Intelligence Primer Certification	Mar 5, 2025
3	Mr.Peeyush tomar	Introduction to Deep Learning	Feb 21, 2025
4	Mr.Peeyush tomar	Computer Vision 101	Feb 21, 2025
5	Mr.Peeyush tomar	Introduction to Artificial Intelligence	Feb 21, 2025
6	Mr.Peeyush tomar	Introduction to Natural Language Processing	Feb 21, 2025
7	Mr.Peeyush tomar	Introduction to Robotic Process Automation	Feb 21, 2025
8	Dr. Swati Sharma	JavaScript Course	11th Feb2025
9	Mr.Rahul Singh	Artificial Intelligence for Digital Manufacturing	20th-25th Jan 2025
10	Ms Shobha Chaudhary	Artificial Intelligence for Digital Manufacturing	20th-25th Jan 2025

FACULTY DEVELOPMENT PROGRAM


Infosys

CERTIFICATE OF ACHIEVEMENT

The certificate is awarded to

Peeyush Tomar

for successfully completing

Artificial Intelligence Foundation Certification

on March 5, 2021

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Congratulations! You make us proud!


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CERTIFICATE OF ACHIEVEMENT

The certificate is awarded to

Peeyush Tomar

for successfully completing

Artificial Intelligence Primer Certification

on March 5, 2021

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Infosys

COURSE COMPLETION CERTIFICATE

The certificate is awarded to

Peeyush Tomar

for successfully completing the course

Introduction to Deep Learning

on February 21, 2021

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COURSE COMPLETION CERTIFICATE

The certificate is awarded to

Peeyush Tomar

for successfully completing the course

Computer Vision 101

on February 21, 2021

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FACULTY DEVELOPMENT PROGRAM

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Meerut, Uttar Pradesh 250005

Student Council of Information Technology

MIET

SCIT MIET

scit@miet.ac.in

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NH 58, Delhi-Roorkee Highway, Baghpat Bypass Road Crossing,
Meerut, Uttar Pradesh 250005

The Student Council of Information Technology (S.C.I.T.) is a dynamic community of tech enthusiasts, innovators, and leaders lead by IT Department of Meerut Institution of Engineering & Technology. We are passionate about harnessing the power of technology to shape the future and empower individuals in the digital era. Through collaboration, education, and advocacy, we strive to create an inclusive and forward-thinking environment where students can explore emerging technologies, develop their skills, and make a meaningful impact. Join us as we pave the way for innovation, connect minds, and drive the digital transformation on our campus and beyond.

VISION

The vision of the Student Council of Information Technology is to foster innovation, collaboration, and leadership among IT students, creating a dynamic and inclusive community that empowers individuals to excel in technology, make a positive impact, and shape the future of the digital world.

MISSION

The mission of the Student Council of Information Technology is to foster collaboration, leadership, and innovation among IT students. We aim to enhance academic and professional growth through networking opportunities, skill development workshops, and industry engagement. Our goal is to create a supportive environment that empowers students to excel in their studies and succeed in the dynamic field of information technology.

(President)

Ankit Bansal

(Vice President & Seceratary)

Ayush Kumar

Aishwarya Singhal

Joint Secretary & Treasurer

Vashu

Gorangi

Heads

Varun Kumar
Web designer

Avni Sharma
Web developer

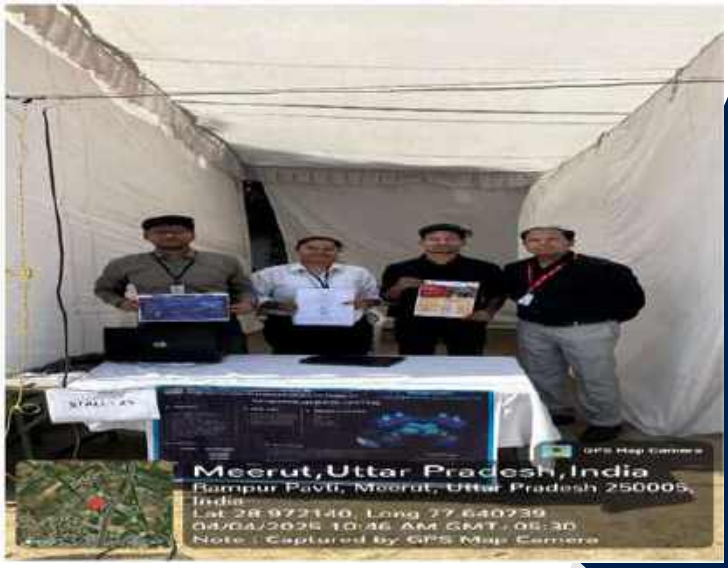
EVENTS & PROGRAMS

S. No.	Title of the Activity	Seminars/ Conferences/	Date of Activity
1	Industrial Visit	Technical	8th April 2025
2	Journey with AWS /AZURE	Seminar	22nd April 25
3	Industrrial Revolution 4.0	Webinar	3rd April 25
4	ARVR	Workshop	12thApril 2025
5	SCIT Orientation	Orientation	11th April 2025
6	Industrial Visit	Technical	8th April 2025
7	Project Expo	Expo	4th April 2025
8	Holi Celebration	Celebration	12th March 2025
9	SCIT Orientation	Orientation	10th Febrauary2025
10	SAP Awareness	Technical	3rd March 2025

EVENTS & PROGRAMS

SAP AWARENESS

PROJECT EXPO - 2025



EVENTS & PROGRAMS

INDUSTRIAL VISIT

SCIT ORIENTATION

EVENTS & PROGRAMS

AR/VR WORKSHOP

HOLI CELEBRATION

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EVENTS & PROGRAMS

SEMINAR ON INDUSTRIAL REVOLUTION

SEMINAR ON AWS/AZURE

FEEDBACK & SUGGESTIONS

Scan the QR Code and provide your valuable feedback/suggestions we might consider in the next issue.....

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