Bhoj Reddy Engineering College for Women
(Sponsored by Sangam Laxmibai Vidyapeet, Apporoved by AICTE and Affiliated to JNTUH)
Vinaynagar, IS Sadan Crossroads, Saidabad, Hyderabad-500 059, Telangana. www.brecw.ac.in.

Department of Computer Science and Engineering

CSE
Create Simulate Emulate
BRECW

SPARKLES

Technical Magazine

2023

Volume 5

Creativity is just connecting things...!

Founders of Sangam Laxmibai Vidyapeet

Sangam Laxmibai Vidyapeet is a voluntary social action group working for empowerment of women and girls. Registered under the Andhra Pradesh Societies Registration Act, It is a not-for-profit organization working in the field of education since 1952.

The Management of the Vidyapeet makes every effort to fulfill the vision of its founders K V Ranga Reddy, Sangam Laxmibai, Mamidi Bhoj Reddy, Bojjam Narsimhulu, Pasham Papaiah, A Shyamala Devi, P Lalitha Devi, B Ramdev, MH Guptha who are no more with us.

Sangam Laxmibai Vidyapeet

Established in 1952

K V Ranga Reddy
(1890-1970)
Founder President

Sangam Laxmibai
(1911-1979)
Founder Secretary

M Bhoj Reddy
(1919-2001)
Founder Treasurer

The Vidyapeet manages 5 Educational institutions for Girls and Women

- M H Guptha High School for Girls
- Sangam Laxmibai Junior College for Girls
- K V Ranga Reddy Degree College for Women
- Bojjam Narsimhulu Pharmacy College for Women
- Bhoj Reddy Engineering College for Women

INDEX

About BRECW

Bhoj Reddy Engineering College for Women is run by Sangam Laxmibai Vidyapeet, which has 72 years of experience in the field of education.

BRECW was established in the year 1997 and it is managed by an executive committee consisting of persons with a vast experience in the field of education. Within a short period, it has emerged as one of the premier Engineering colleges in the state.

The College campus has the unique advantage of being located in the heart of the city and yet free from noise and dust pollution. With considerable open space and greenery spread over 6.5 acers of land, the campus provides an ideal ambience for the engineering education of girls.

The academic performance of our students has been consistently outstanding with a pass percentage of 85 to 90.

BRECW Vision

BRECW develops confident and articulative young women into dynamic Engineers equipped with skills, knowledge, values and an attitude to contribute to the society.

BRECW Mission

- BRECW is committed to providing a challenging, enriching, safe and supportive technical learning environment through its core values of responsibility, respect and compassion.
- Fosters intellectual, spiritual and personal development of young women so that they develop the tools necessary to lead meaningful lives.
- Offers academic curriculum along with an extensive co-curricular program with the support of dedicated staff who ensure that students identify their strengths and develop their skills such as teamwork, leadership, creativity and entrepreneurship.
- Develops independent, adaptable thinkers with a passion for learning, courage to take risks and initiative to apply what is learned.

Department of Computer Science and Engineering (CSE)

The future of computing systems and information systems rests with the engineers in Computer Science and Engineering (CSE). The Course is meant to advance, evolve and enhance computer science and computing engineering fundamentals to build the intellectual and research capital in the domains of science, engineering and technology. The Course endeavors to equip the CSE in development of computing and IT systems and their proper applications. This has become the core branch of Engineering with all branches depending on it. The department has well established computer laboratories.

Department Vision

- To become a world-class technical center for making women into dynamic Computer Science Engineers of tomorrow.

Department Mission

- To impart high quality professional training in a challenging and safe environment with an emphasis on noble values.
- To encourage women engineers to upgrade their programming, analyzing, and developing skills in building computing algorithms for leading meaningful lives.
- To make learning process exciting and interesting through curricular and co-curricular program with staff moulding them into leaders and entrepreneurs.
- To nurture the students with the required skills to solve technical problems of modern society with courage and confidence.

South Block

CSE

Ground Floor

&

First Floor

Programme Outcomes (PO's)

PO1 - Engineering Knowledge:

Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 - Problem Analysis:

Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 - 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.

PO4 - 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.

PO5 - 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.

PO6 - 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

PO7 - 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.

PO8 - Ethics:

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 - Individual and Team Work:

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 - 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.

PO11 - 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.

PO12 - Life-long 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.

Program Specific Outcomes (PSO's)

PSO I: Identify suitable data structures and algorithms to design and develop computing solutions for real-life problems.

PSO II: Able to excel in various programming, project competitions and technological challenges laid by professional societies.

Principal's Message

Dr J Madhavan
ME, Ph.D, MISTE, MIE
Principal
Email: principal.brecw32@gmail.com

Dear Students,

Bhoj Reddy Engineering college for Women (BRECW) has always evolved while maintaining the fundamentals of an outstanding education for our students. BRECW is committed to providing the best possible environment which encourages and celebrates student's academic achievements and love for learning. Our academic results manifest our vision for providing excellent teaching and learning methodologies. Our faculty team motivates students to develop skills specific to their career path and imperative for future job success.

Extra curricular activities stimulates students to discover and develop their unique talents and healthily building self-esteem as they try new things and learn how they are uniquely talented.

Our technical magazine, Tech-Pulse 2019-20 showcases such student generated extra curricular content which is designed and edited by students. My sincere appreciation to editorial and advisory members for their efforts in bringing out this technical magazine.

HOD's Message

Mrs K Usha Rani
M.Tech (CSE)
HOD-CSE
Email: hod.cse.brecw@gmail.com

Greetings! On behalf of staff and students of the Department of Computer Science and Engineering of Bhoj Reddy Engineering College for Women (BRECW) at Hyderabad.

Department of Computer Science and Engineering (CSE) is the centre of excellence providing in-depth technical knowledge and opportunities for innovation and scalable with up-to-date computer facilities at par with top engineering colleges in Telangana.

Ever since its inception in the year 1997 with an initial intake of 40 seats in B. Tech, the department has grown by leaps and bounds, not only in terms of quantity but also in terms of quality. Currently CSE department has an intake of 120 seats in B. Tech.

The department gives exposure to its students, about regular engineering curriculum as well as prepare them to face the challenges of today's corporate world, by inculcating a professional attitude in them. The highly qualified, immensely diligent and experienced faculty is continuously involved in developing the skill set of the students in core courses like Programming, Emerging Technologies, Professional Ethics, Open Source Technologies and as well as hands on experience. All the Very Best to all students.

FACULTY CONTRIBUTION

List of Workshops/FDP/Refresher courses attended for Academic year 2022-23

M Vineela - Associate Professor

- Prediction Of Genetic Diseases Based On DNA Journal of Engineering Sciences Vol 13 Issue 7, JULY 2022, ISSN:0377-9254 JULY 2022
- Face Mask Detection Using Classification METHOD Journal of Engineering Sciences Vol 13 Issue 7,JULY/2022, ISSN:0377-9254 JULY 2022
- Academic Performance Prediction Journal of Engineering Science Vol 13 Issue 7,JULY/2022, ISSN:0377-9254 JULY 2022
- 6 days Advancements in Security using Deep Learning GMR Institute of Technology and Velagapudi Ramakrishna Siddhartha Engineering College 21 March 2022 to 25 March 2022
- 12 weeks Problem Solving Through Programming In C NPTEL July 2022 to October 2022
- 2 Weeks Machine Learning And Data Science Jawaharlal Nehru Technological University Hyderabad 12/12/2022 to 24/12/2022
- Artificial Intelligence Enabled Framework For Business Process Anomaly Detection And Enhancement 8/11/2022

P Deepthi- Associate Professor

- Comparison of Pollard's rho algorithm based on cycle finding Methods International Conference on Intelligent Computing and Communication (ICICC-22) organized by G. Narayanamma Institute of Technology Science (for Women) 18th and 19th November 2022
- 2 Days Internet of Things Bhoj Reddy Engineering College for Women 27-28 and 29-30 June 2022

Dr E Madhusudhana Reddy- Professor

- Deep Learning System for COVID-19 Diagnostic and Predictive Analysis, International Journal of Scientific Research in Science, Engineering and Technology
- App Success Predictor, International Journal of Scientific Research in Science, Engineering and Technology.

K Shireesha - Associate Professor

- Dengue Disease Spread Prediction Journal of Engineering Sciences Vol 13 Issue 7, July 2022, Issn:0377-9254 July 2022
- Crime Analysis and Prediction JASC: Journal of Applied Science and Computation Volume IX, Issue VII, July 2022 ISSN NO: 1076-5131 July 2022
- Bird Species Identification Using Deep Learning JASC: Journal of Applied Science and Computations Volume IX, Issue VII, July 2022 ISSN NO: 1076-5131 July 2022
- 6 Days Amazon Webservices CMR Engineering College 22 August 2022 to 27 August 2022
- Two - days Internet of Things Bhoj Reddy Engineering College 4.07.2022 to 05.07.2022
- 12 weeks Problem Solving Through Programming In C NPTEL July 2022 to October 2022
- Artificial Intelligence Enabled Framework For Business Process Anomaly Detection And Enhancement 8 November 2022.

N Malathi- Assistant Professor

- 2 Days Internet of Things Edutech Innovations 04-05 July 2022
- 5 Days Universal Human Value on the theme “Inculcating Universal Human Values in Technical Education” AICTE
- 3 Days Python BrainOVision 24-26 November 2022.

N Sudha Laxmaiah- Assistant Professor

- Deep Learning Methods To Detect Hand Gestures For Deaf And Dumb IJRAR journal E-ISSN:2348-1269,P-ISSN:2349-5138 26 Oct 2022
- 6 Days Amozan Web Services MVSR Engineering College 22-08-2022 to 27-08-2022
- 30 days Java Full Stack Master Class Pantech E Learning pvt ltd 01-09-2022 to 30-09-2022
- One-Day Webinar on "Emerging Practices in Communication and Computer Technologies" Amity University 22 September 2022
- 2 Days Two Days International Workshop on Research Methodology D Y Patil Institute of MCA and Management, Akurdi, Pune 29 September and 30 September 2022
- 5 days Inculcating Universal Human Values in Technical Education AICTE 07 November to 11 November 2022
- Artificial Intelligence Enabled Framework For Business Process Anomaly Detection And Enhancement THE PATENT ACT 1970 11 November 2022.

T Anjali- Assistant Professor

- 12 weeks Problem Solving Through Programming In C NPTEL July 2022 to October 2022
- Enhanced Object Detection with Deep CNN for Advance Driving Assistance, The International journal of analytical and experimental modal analysis.

AVS Radhika - Assistant Professor

- Software Defined Networking based Network Security Architecture. 202241061992 Ordinary Application 31/10/2022
- 12 days Online Refresher Course on “Machine Learning and Data Science” JNTUH HRDC 12/12/2022-24/12/2022
- 6 days Amazon Web Services GMR Institute of Technology 22 August to 27 August 2022
- 7 days FDP on 21 st Century skills for Teaching and Learning GMR Institute of Technology 16 August to 22 August 2022
- 2 days Internet of Things BRECW 28-29 June 2022
- 3 days Python BRECW 24-26 November 2022
- 12 Weeks NPTEL Online Certificate Course in PPS NPTEL SWAYAM July to October 2022.

P Sumalatha- Associate Professor

- Verification Of Academic Records Using Block Chain Technology,The International Journal Of Analytical And Experimental Modal Analysis(IJAEMA) (IF-6.3) ISO Certified Volume XV, Issue IV
- An Intelligent Career Guidance System,International Journal For Recent Development In Science And Technology Volume 7, Issue 2, Page No:179-187
- Project Automation System,International Journal for Advanced Research in Science & Technology (IJARST) Volume 13, Issue 4 Page No:276-279
- Two-Week Refresher Course on Artificial Intelligence(UGC-Sponsored Refresher Course), JNTUH, 23 May to 04 June 2022
- 12 Weeks AICTE recognized FDP course on “Compiler Design” NPTEL Online Certification Course, Jan 2022 – April 2022
- 8 Weeks AICTE recognized FDP course on “Introduction to Machine Learning” NPTEL Online Certification Course, July 2022 – September 2022
- UGC- Sponsored short term course(Online) on “Cyber Security and Forensics” held from 14-19 November 2022.

P Sumalatha- Associate Professor

Patent Details:

Title: Ensemble Machine Learning Based Predictive Model For Android Malware Detection

PATENT OFFICE
INTELLECTUAL PROPERTY BUILDING
G.S.T. Road, Guindy, Chennai-600032
Tel No. (091)(044) 22502081-84 Fax No. 044 22502066
E-mail : Chennai-patent@nic.in
Web Site : www.ipindia.gov.in

सत्यमेव जयते
GOVERNMENT OF INDIA

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PATENTS | DESIGNS | TRADE MARKS | GEOGRAPHICAL INDICATIONS

CHALLAN : TR-5
DOCKET NO:115396

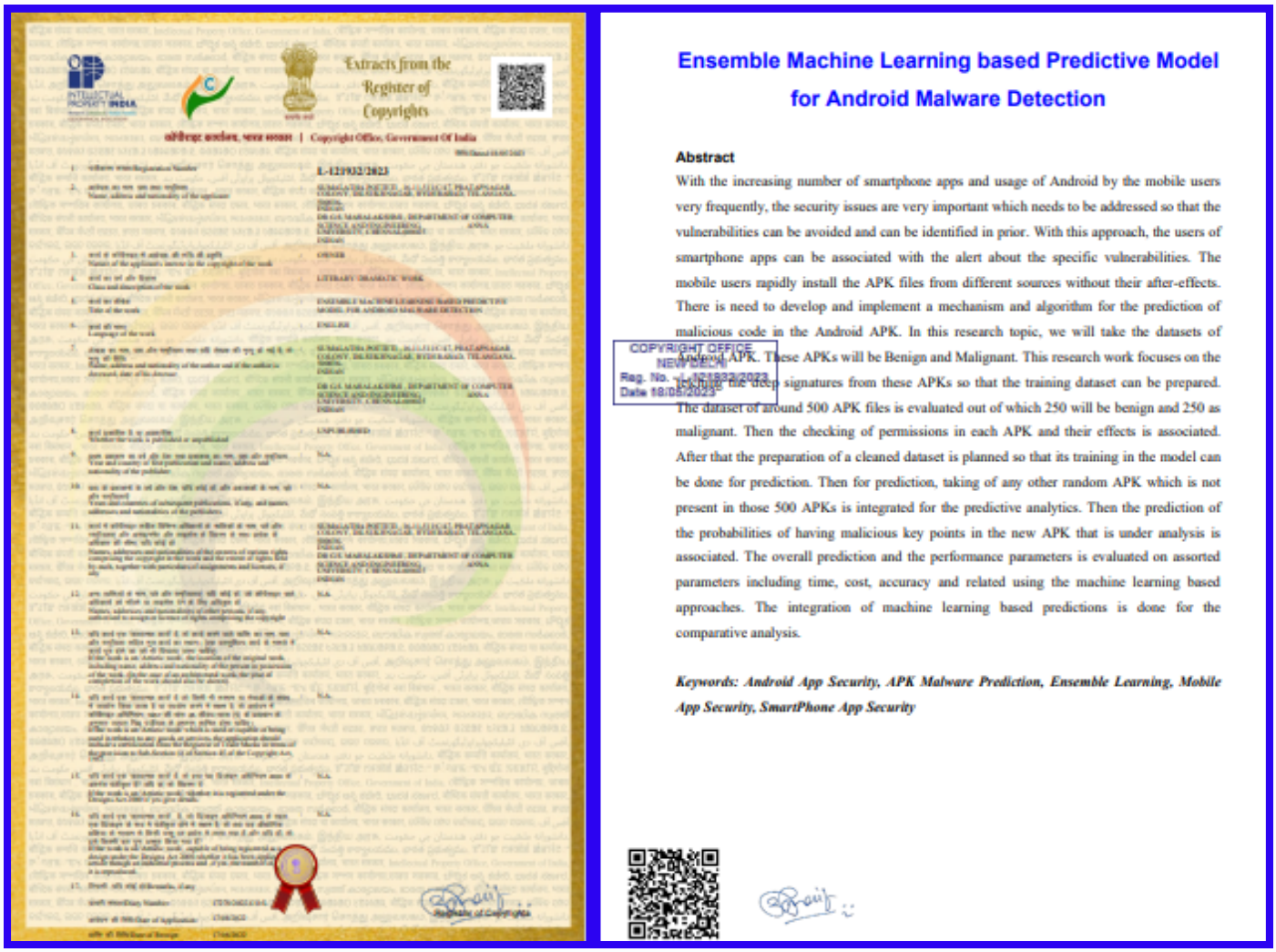
Date/Time : 28/11/2022

To,
SUMALATHA POTTETI and Dr G.S. MAHALAKSHMI
VINAYNAGAR COLONY, IS SADAN, SANTHOSHNAGAR CROSSROADS, HYDERABAD-500059, TELANGANA.

Agent Number:

Sr. No.	CBR No.	Reference Number /Application Type	Application Number	Title/Remarks	
1	47897	ORDINARY APPLICATION	202241068265	ENSEMBLE MACHINE LEARNING BASED PREDICTIVE MODEL FOR ANDROID MALWARE DETECTION	
2		E-101/20085/2022-CHE	202241068265	Correspondence	
3		E-2/4963/2022-CHE	202241068265	Form2	
4		E-3/36795/2022-CHE	202241068265	Form3	
5		E-5/4824/2022-CHE	202241068265	Form5	
Total :					

Note: This is electronically generated receipt hence no signature required.



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Date 18/08/2023

Ensemble Machine Learning based Predictive Model for Android Malware Detection

Abstract

With the increasing number of smartphone apps and usage of Android by the mobile users very frequently, the security issues are very important which needs to be addressed so that the vulnerabilities can be avoided and can be identified in prior. With this approach, the users of smartphone apps can be associated with the alert about the specific vulnerabilities. The mobile users rapidly install the APK files from different sources without their after-effects. There is need to develop and implement a mechanism and algorithm for the prediction of malicious code in the Android APK. In this research topic, we will take the datasets of Android APK. These APKs will be Benign and Malignant. This research work focuses on the techniques the deep signatures from these APKs so that the training dataset can be prepared. The dataset of around 500 APK files is evaluated out of which 250 will be benign and 250 as malignant. Then the checking of permissions in each APK and their effects is associated. After that the preparation of a cleaned dataset is planned so that its training in the model can be done for prediction. Then for prediction, taking of any other random APK which is not present in those 500 APKs is integrated for the predictive analytics. Then the prediction of the probabilities of having malicious key points in the new APK that is under analysis is associated. The overall prediction and the performance parameters is evaluated on assorted parameters including time, cost, accuracy and related using the machine learning based approaches. The integration of machine learning based predictions is done for the comparative analysis.

Keywords: Android App Security, APK Malware Prediction, Ensemble Learning, Mobile App Security, SmartPhone App Security

FACULTY CONTRIBUTION

Ensemble Machine Learning based Predictive Model for Android Malware Detection

Abstract:

With the increasing number of smartphone apps and usage of Android by the mobile users very frequently, the security issues are very important which needs to be addressed so that the vulnerabilities can be avoided and can be identified in prior. With this approach, the users of smartphone apps can be associated with the alert about the specific vulnerabilities. The mobile users rapidly install the APK files from different sources without their after-effects. There is need to develop and implement a mechanism and algorithm for the prediction of malicious code in the Android APK. In this research topic, we will take the datasets of Android APK. These APKs will be Benign and Malignant. This research work focuses on the fetching the deep signatures from these APKs so that the training dataset can be prepared. The dataset of around 500 APK files is evaluated out of which 250 will be benign and 250 as malignant. Then the checking of permissions in each APK and their effects is associated. After that the preparation of a cleaned dataset is planned so that its training in the model can be done for prediction. Then for prediction, taking of any other random APK which is not present in those 500 APKs is integrated for the predictive analytics. Then the prediction of the probabilities of having malicious key points in the new APK that is under analysis is associated. The overall prediction and the performance parameters is evaluated on assorted parameters including time, cost, accuracy and related using the machine learning based approaches. The integration of machine learning based predictions is done for the comparative analysis.

Permission in Android

Ms P Sumalatha
M.Tech (CSE), [Ph.D]
Assistant Professor, BRECW.

FACULTY CONTRIBUTION

An Evaluate on Ensemble Learning Approach for an Effective Android Malware Detection

Paper Details:

Website: www.neuroquantology.com
Journal Name: Industrial Engineering Journal ,ISSN: 1303-5150
Published in: Volume 20 Issue 13
Publication Date: October 2022
Paper link: https://www.neuroquantology.com/article.php?id=8970
Page(s): 722-736

Ms P Sumalatha
M.Tech (CSE), [Ph.D]
Associate Professor, BRECW.

Abstract:

As the number of Android-based devices grows in popularity throughout the world, so do the vulnerable to various attacks. The base installation package of Android is Android Package (APK). Lots of vulnerabilities are found in APK files in terms of malware and other assaults. The main focus is on predicting the malware in android APK files in order to better predict assaults with assorted vulnerabilities. To accomplish multi-dimensional outcomes, the research work incorporates the use of numerous methodologies in machine learning. With the growing number of smartphone apps and the widespread use of Android by mobile users, security concerns are becoming increasingly essential. These concerns must be addressed so that vulnerabilities can be avoided and recognised in advance. Users of smartphone apps can be linked to a warning about specific vulnerabilities using this method. Users of mobile devices can quickly install APK files from many sources without experiencing any negative consequences. A mechanism and algorithm for predicting harmful code in Android APKs must be developed and implemented. The work integrates the Android APK datasets for analytics using ensemble learning. There are two types of APKs: benign and malignant. The goal of this study is to extract deep signatures from these APKs so that a training dataset may be created. A number of APK files are analysed, with benign and the other being malignant. Then there's the checking of permissions in each APK and their consequences. Following that, the production of a cleaned dataset is planned in order to train the model for prediction. Then, in order to predict, any other random APK that isn't present in those APKs is added to the predictive analytics. Then there's a prognosis of the likelihood of having harmful key points in the new APK under investigation. The entire prediction and performance metrics are evaluated using machine learning based methodologies on a variety of parameters such as time, cost and accuracy.

FACULTY CONTRIBUTION

Intelligent Android Malware Detection System Using Ensemble Machine Learning

Paper Details:
Journal Name: Journal of Harbin Engineering University ,ISSN: 1006-7043
Published in: Volume 43 Issue 7
Publication Date: July 2023
Paper link: https://harbinengineeringjournal.com/index.php/journal/article/view/448/364
Page(s): 666-676

Abstract:

The privacy and security of users are seriously threatened by the exponential growth of Android devices and the rising prevalence of malware. Because malware is always developing, conventional signature-based malware detection technologies are becoming ineffective. As a result, the demand for sophisticated malware detection systems that can accurately identify fresh and undiscovered malware strains is rising. In order to improve detection accuracy and robustness, this study suggests an intelligent Android malware detection system that makes use of ensemble machine learning techniques. The suggested approach uses an ensemble model created by combining different machine learning algorithms, such as gradient boosting, random forests, support vector machines (SVM), and decision trees. Each base model is trained using a wide variety of features that are taken directly from Android applications, including permissions, API requests, and manifest data. In order to reach a final determination regarding whether an application is malicious or benign, the ensemble model combines the predictions from individual models. An extensive dataset made up of both known and undiscovered malware samples is utilised to assess the system's performance. The experimental findings show that in terms of accuracy, precision, recall, and F1-score, the ensemble model surpasses individual machine learning techniques. The ensemble model successfully lowers false positives and false negatives while achieving a high detection rate for both known and undiscovered malware. The suggested approach also demonstrates remarkable generalisation skills, enabling it to adjust to fresh and undiscovered malware types.

Ms P Sumalatha
M.Tech (CSE), [Ph.D]
Associate Professor, BRECW.

FACULTY CONTRIBUTION

Automated Diagnosis of "Rheumatoid arthritis" based on CNN

Paper Details:

Date of Conference: 25-26 May 2023
DOI: 10.1109/ACCAI58221.2023.10200053
Paper link: https://harbinengineeringjournal.com/index.php/journal/article/view/448/364
Published in: 2023 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)

Abstract:

Diseases like "rheumatoid arthritis" are chronic inflammatory conditions that wreak havoc on the body's tissue, most noticeably the joints. An efficient system analysis is necessary for manual "Rheumatoid arthritis" identification and diagnosis, especially in the pre-diagnostic stages. Using image processing and a convolutional neural network, this study aims to create an intelligent system capable of identifying hand "Rheumatoid arthritis" cases. There are two primary parts to the system. "Image processing" refers to the procedure that begins with the processing of images. Pre-processing, image segmentation, and Gabor filter-based feature extraction are all examples of such methods. In the second stage, the retrieved characteristics are sent into a neural convolution network, which determines whether or not the shown hands are healthy (arthritic). Using normal and abnormal hand pictures, the "CNN" algorithm does classification. The identification rate in the experiments was 83.5% when the same number of photos was used as in the test set.

Dr B Raveendranadh Singh
M.Tech(CSE), M.Tech(IT), M.Phil(CS), Ph.D(CSE-SE), Ph.D(CSE-DS),LMCSI, LMISTE, MIEEE(USA).
Professor & Head, Dept. of CSE, BRECW.

STAFF & STUDENT CONTRIBUTION

P Deepthi- Associate Professor

1. Paper Details:
Title of Paper: Build an Machine Learning Model For Prediction Flight Delays With Error Calculation
Journal Name: Journal of Engineering Sciences
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://www.neuroquantology.com/article.php?id=8970
ISSN No: 0377-9254
Listed in: UGC Care

2. Paper Details:
Title of Paper: Elliptic Curve Cryptography using Authenticated Encryption
Journal Name: International Journal of Engineering Research and Applications
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://www.neuroquantology.com/article.php?id=8970
ISSN No: 2248-9622
Listed in: UGC Care

K Shireesha- Associate Professor

3. Paper Details:
Title of Paper: Dengue Disease Spread Prediction
Journal Name: Journal of Engineering Sciences
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://jespublication.com/upload/2022-V13I762.pdf
ISSN No: 0377-9254
Listed in: UGC Care

4. Paper Details:
Title of Paper: Crime Analysis and Prediction
Journal Name: JASC: Journal of Applied Science and Computation Volume IX, Issue VII, July/2022
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://drive.google.com/file/d/1v1NXrHsYZh5x3_EaX-bz1OTPsgsJyc1p/view
ISSN No: 1076-5131
Listed in: UGC Care

STAFF & STUDENT CONTRIBUTION

K Shireesha- Associate Professor

5. Paper Details:
Title of Paper: Bird Species Identification Using Deep Learning
Journal Name: JASC: Journal of Applied Science and Computations Volume IX, Issue VII, July/2022
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://drive.google.com/file/d/14M2XKoxxBne2RHsP7Mg3UwfzTwpnahtV/view
ISSN No: 1076-5131
Listed in: UGC Care

M Vineela- Associate Professor

6. Paper Details:
Title of Paper: Face Mask Detection Using Classification Method
Journal Name: Journal of Engineering Sciences
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://jespublication.com/upload/2022-V13I762.pdf
ISSN No: 0377-9254
Listed in: UGC Care

7. Paper Details:
Title of Paper: Academic Performance Prediction
Journal Name: Journal of Engineering Sciences
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://jespublication.com/upload/2022-V13I7025.pdf
ISSN No: 0377-9254
Listed in: UGC Care

8. Paper Details:
Title of Paper: Prediction of Genetic Diseases Based on DNA
Journal Name: Journal of Engineering Sciences
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://jespublication.com/upload/2022-V13I741.pdf
ISSN No: 0377-9254
Listed in: UGC Care

STAFF & STUDENT CONTRIBUTION

N Sudha Laxmaiah & A Hima Bindu- Assistant Professor

9. Paper Details:

Title of Paper: Deep Learning Methods to Detect Hand Gestures for Deaf and Dumb
Journal Name: IJRAR: International Journal of research and analytical reviews
Website Link: www.ijrar.org
Year of Publication: 2022
Paper link: https://www.ijrar.org/papers/IJRAR22D1482.pdf
ISSN No: 2349-5138
Listed in: UGC Care

B Pravalika- Assistant Professor

10. Paper Details:

Title of Paper: A Framework to Estimate the Nutritional Value Of Food In Real Time Using Deep Learning Techniques
Journal Name: Journal of Engineering Sciences
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://jespublication.com/upload/2022-V13I747.pdf
ISSN No: 0972-2750
Listed in: UGC Care

Syeda Qurratul Aine- Assistant Professor

11. Paper Details:

Title of Paper: Prediction Of Cardiac Disease Using Supervised Machine learning Algorithms
Journal Name: The International journal of analytical and experimental modal analysis
Website Link: https://ijaema.com/
Year of Publication: 2022
Paper link: https://drive.google.com/file/d/1alMoIQGsWFod_ktjL8kyKNdRpehsT-Y1/view
ISSN No: 0886-9367
Listed in: UGC Care

T Anjali- Assistant Professor

12. Paper Details:

Title of Paper: Review Of Vision-Based Fall Detection Systems
Journal Name: Journal of Engineering Sciences
Website Link: https://jespublication.com/
Year of Publication: 2022
Paper link: https://jespublication.com/upload/2022-V13I744.pdf
ISSN No: 0377-9254
Listed in: UGC Care

STUDENT CONTRIBUTION

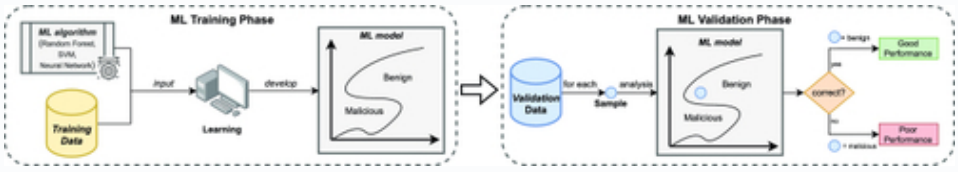
The Role of Machine Learning in Cybersecurity

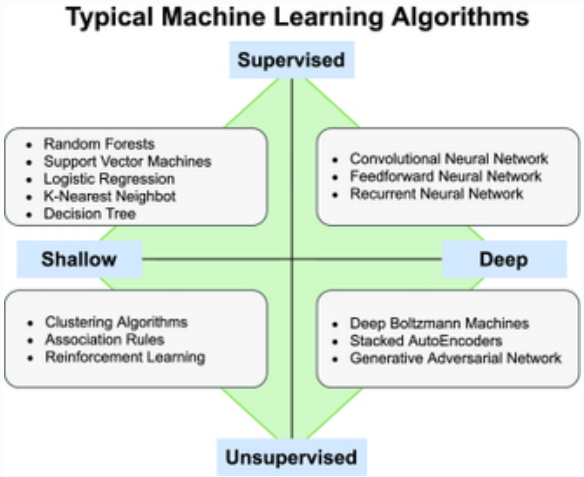
Abstract:

Machine Learning (ML) represents a pivotal technology for current and future information systems, and many domains already leverage the capabilities of ML. However, deployment of ML in cybersecurity is still at an early stage, revealing a significant discrepancy between research and practice. Such a discrepancy has its root cause in the current state of the art, which does not allow us to identify the role of ML in cybersecurity. The full potential of ML will never be unleashed unless its pros and cons are understood by a broad audience.

This article is the first attempt to provide a holistic understanding of the role of ML in the entire cybersecurity domain—to any potential reader with an interest in this topic. We highlight the advantages of ML with respect to human-driven detection methods, as well as the additional tasks that can be addressed by ML in cybersecurity. Moreover, we elucidate various intrinsic problems affecting real ML deployments in cybersecurity. Finally, we present how various stakeholders can contribute to future developments of ML in cybersecurity, which is essential for further progress in this field. Our contributions are complemented with two real case studies describing industrial applications of ML as defense against cyber-threats.

Machine Learning development Model





By:
15321A0512- A Anitha
15321A0514- Asma Khan

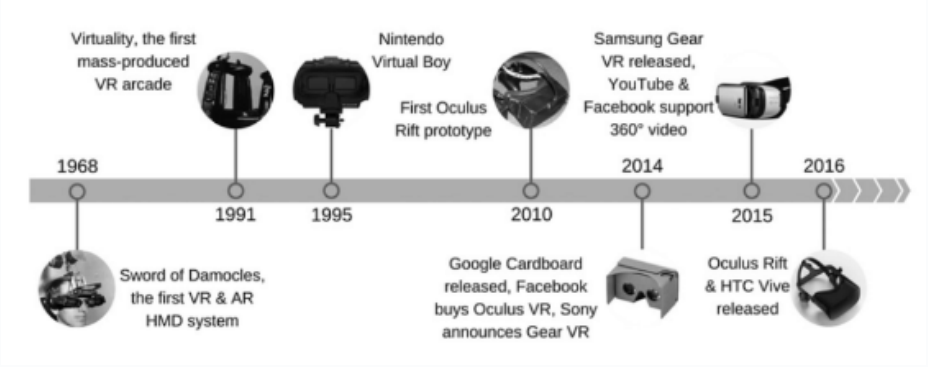
STUDENT CONTRIBUTION

Systematic Analysis of Virtual Reality & Augmented Reality

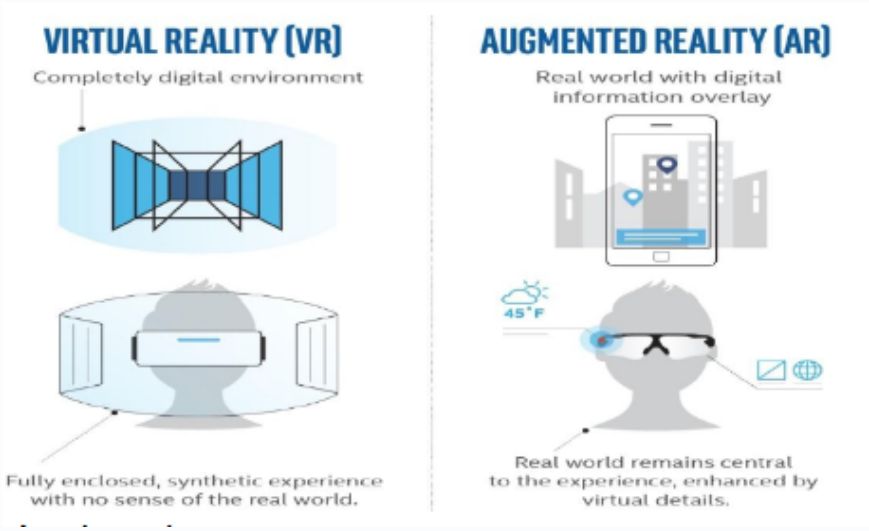
Abstract:

Nowadays, users are moving from old 2D screens to modern devices such as 3D screens and virtual reality devices to enjoy videos and games like real-world experience, and this demand increased further development. Virtual Reality (VR) is based on the creation of a simulated environment of real-world with computer creation, and Augmented Reality (AR) is based on the addition of simulation components (environment) in the real-world scene. In this paper, systematic analysis of relationships and features both VR and AR varies by outline, arrangement, administrations, and devices for associations and clients. This paper provides a difference between AR and VR, advantages, future, and open research issues.

Evolution of VR/AR Technology:



Presentation of AR and VR to audience:



By:
17325A0503- S Haritha
17325A0506- T Devika

STUDENT ACHIEVEMENTS

Elocution Competition as part of Hyderabad Liberation Day Celebrations

The topic for the Elocution competition: “Hyderabad Liberation Movement – Struggles and Sacrifices”

The aims of Hyderabad Liberation Movement elocution competition are:

- To enable the youth to know about the Hyderabad Liberation Movement and the Struggles and Sacrifices made.
- To provide an excellent platform to bring out the creativity, innovation & oratory skills among the university students;
- To provide a competitive environment across the state among university students to present their views and ideas;
- To enrich communication skills, thought provoking ideas in the fertile minds of university students;

Ms. Vepoori Sushmitha of II CSE B participated in an elocution competition and received a certificate from the Hon’ble Governor of Telangana Shri Tamilisai.

STAFF ACHIEVEMENTS

Recognizing 20 Years' of Service

Mr Moka Vinod is currently employed as an Associate Professor in the Department of Computer Science and Engineering. He held the positions of Coordinator for Admissions and Head of the Academic and Exam Branch Section. He also worked as Head of the Department for the IT branch from 2017 to 2020.

We value your outstanding contributions and unwavering dedication to the college and we anticipate working with you and enjoying success for many more years.

Academic Milestone

- Dr P Deepthi, working as Associate Professor, Department of CSE, BRECW. She has received her Ph.D. degree from Osmania University, Hyderabad, on 13 December 2022." Her main research interest includes Network Security.
- The hard-work and efforts you put your endeavours are beyond excellence. Congratulations on another success.
- Your dedication to academia is truly inspiring.

- Dr P Sumalatha, working as Associate Professor, Department of CSE, BRECW. She has received her Ph.D. degree from Anna University, Chennai, on 19 June 2023." Her main research interest includes Machine Learning, Artificial Intelligence, Data Mining and Data Science.
- This accomplishment is a testament to your hard-work, dedication and unwavering commitment to your field of study.
- Hope you will continue to make significant contributions your field and beyond, Congratulations.

STAFF ACHIEVEMENTS

The CSE staff have published patents in various fields

Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry,
Government of India

Application Details	
APPLICATION NUMBER	202241064557
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	11/11/2022
APPLICANT NAME	1 . Mrs. M. Vineela, 2 . Mrs. K. Shireesha 3 . Ms. Sumalatha Potteti 4 . Dr. Bhaludra R Nadh Singh 5 . Mrs. A. Hima Bindu 6 . Mrs. N. Sudha Laxmaiah 7 . Dr. Bremiga Gopalan
TITLE OF INVENTION	ARTIFICIAL INTELLIGENCE ENABLED FRAMEWORK FOR BUSINESS PROCESS ANOMALY DETECTION AND ENHANCEMENT
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	patentagent@prometheusip.com
ADDITIONAL-EMAIL (As Per	


पेटेंट कार्यालय, भारत सरकार The Patent Office, Government Of India
डिजाइन के पंजीकरण का प्रमाण पत्र | Certificate of Registration of Design

Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial and Internal Trade
Ministry of Commerce & Industry,
Government of India
(http://ipindia.nic.in/index.htm)

Application Details	
APPLICATION NUMBER	201621036595
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	10/10/2016
APPLICANT NAME	1 . Dr. Pravin R. Kshirsagar 2 . Mr. Pranav Chippalkatti 3 . Dr. Bhaludra R. Nadh Singh 4 . Dr. Arnav R. 5 . Dr. Neeraj Kumar 6 . Dr. Vijay Kurkar 7 . Dr. M. Narayana 8 . Dr. Ch. Subramanyam 9 . Salim A. Chavan 10 . Prof. Dr. Sudhir G. Akojwar
TITLE OF INVENTION	PROCESS FOR DETECTION OF WIPES IN PRESENCE OF MOTION AND ILLUMINATION
FIELD OF INVENTION	COMMUNICATION
E-MAIL (As Per Record)	rjgawande@gmail.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	ashutosh@bkconsultancy.co.in,info581108@gmail.com
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	22/11/2016
PUBLICATION DATE (U/S 11A)	25/11/2016
FIRST EXAMINATION REPORT DATE	30/07/2021
Date Of Certificate Issue	29/04/2024
POST GRANT JOURNAL DATE	03/05/2024
REPLY TO FER DATE	30/01/2022

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Ministry of Commerce & Industry,
Government of India

Application Details	
APPLICATION NUMBER	202331064964
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	27/09/2023
APPLICANT NAME	1 . Dr. Karthik Kovuri 2 . Dr. Bhaludra R Nadh Singh 3 . S V M G Phani Kumar C 4 . Dr. Bremiga Gopalan 5 . Devender Nanre 6 . Dr.N.Venkatesh
TITLE OF INVENTION	A SYSTEM AND METHOD FOR AI ENHANCED DIGITAL VIDEO FORENSICS
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	patentagent@prometheusip.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	06/10/2023

Australian Government
IP Australia

CERTIFICATE OF GRANT
INNOVATION PATENT

Patent number: 2021101970

The Commissioner of Patents has granted the above patent on 28 April 2021, and certifies that the below particulars have been registered in the Register of Patents.

Name and address of patentee(s):

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Neeraj Kumar of Sr. Researcher, DIT, MMAU Lucknow India
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Bhaludra R Nadh Singh of Professor of CSE & Head, AVN Institute of Engineering & Tech., MP Patelguda(V), Ibrahimpatnam(M) Hyderabad, Ranga Reddy Dist. Telangana 501510 India

Title of invention:
AN ARTIFICIAL INTELLIGENCE BASED HEART DISEASE MONITORING SYSTEM

Name of inventor(s):
Harakannanavar, Sunil S.; Kumar, Neeraj; Mayannavar, Shilpa; Rastogi, Ritesh; Aeron, Anurag; Gandhi, Priyesh P.; Angadi, Sangeev Kumar; Srivastava, Sandip; Mohan, Anand; Rajak, Shraddha; Verma, A. K.; Bora, Ashim and Singh, Bhaludra R. Nadh

Term of Patent:

Dated this 28th day of April 2021

Commissioner of Patents

PATENTS ACT 1990

Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry,
Government of India

Application Details	
APPLICATION NUMBER	202341038564
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	05/06/2023
APPLICANT NAME	1 . SYEDA QURRATUL AINE 2 . SEEMA AHMED 3 . FARHANA TABASSUM 4 . BATHINI PRAVALIKA 5 . M A AZIZ SIDDIQUI 6 . SHIREEN BEGUM 7 . Dr. Bhaludra R Nadh Singh 8 . P. Sushma
TITLE OF INVENTION	A SYSTEM FOR NETWORK INTRUSION DETECTION USING ARTIFICIAL INTELLIGENCE
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	patentagent@prometheusip.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
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Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
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Application Details	
APPLICATION NUMBER	202241074805
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	23/12/2022
APPLICANT NAME	1 . Dr. Bhaludra R Nadh Singh 2 . Dr. E. Madhusudhana Reddy 3 . Mrs. D. Navaneetha 4 . Ms. Syeda Sameera Nayyar 5 . Mrs. Gundugola Divyavani 6 . Mr. V Rama Krishna 7 . Dr. Bremiga Gopalan
TITLE OF INVENTION	A DATA SCIENCE AND AI ENABLED FRAMEWORK FOR NETWORK SECURITY
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	patentagent@prometheusip.com
ADDITIONAL-EMAIL (As Per Record)	
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PUBLICATION DATE (U/S 11A)	13/01/2023

Office of the Controller General of Patents, Designs & Trade Marks
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Ministry of Commerce & Industry,
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Application Details	
APPLICATION NUMBER	202341066711
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	05/10/2023
APPLICANT NAME	1 . Dr Anitha Patil 2 . Dr. S. Madhu 3 . Dr. Bhaludra R Nadh Singh 4 . J STELLA MARY 5 . Dr. Bremiga Gopalan, 6 . Tasleema Noor 7 . Swathi Sankepally
TITLE OF INVENTION	AN ARTIFICIAL INTELLIGENCE BASED METHOD FOR DETECTING DIABETIC RETINOPATHY
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	patentagent@prometheusip.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
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REQUEST FOR EXAMINATION DATE	--
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Volume 5

SPARKLES

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Editors:

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Faculty Editor: Ms P Sumalatha

Student Editors:

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Ms B Harshini -20321A0526

Ms Y Sahithi -20321A0572