Bhoj Reddy Engineering College for Women
(Sponsored by Sangam Laxmibai Vidyapeet, Approved 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

TECHNICAL MAGAZINE

CSE Create Simulate Emulate BRECW

Sparkles

2021

Volume 3

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, M H 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

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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 center of excellence in the field of Computer Science and Engineering
- To produce competent, confident, innovative and socially responsible engineers with an ability to serve the society.

Department Mission

- To impart high quality professional training at the undergraduate level with an emphasis on basic principles of Computer Science and Engineering.
- To pass on moral qualities and ethical values to the students.
- To empower the students with the required skills to solve technical problems of modern society.
- To make learning process exciting, stimulating, interesting and exposing students to broad research areas.

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, Campus Chronicle 2020-21 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

Mr N Satyanandam
M.Tech (CSE),[Ph. D]
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 2020-21

K Usha Rani- Associate Professor

- Workshop on “Python” by BRECW on 23.06.2020.
- Workshop on “Angular JS” by Vignan Institute of Technology and Sciences on 26.06.2020.
- FDP on Artificial Intelligence
- FDP on “Emerging Trends in Computer Science and Information Technology” by KPRIT from 29.06.2020 to 03.07.2020.
- Webinar on “Beginning with Machine Learning” by Avanthi Group of Colleges from 01.07.2020 to 02.07.2020.
- Workshop on “DART Programming Language” by GNITS on 27.07.2020.
- FDP on “Build your Hybrid mobile and Web App with Flutter and Dart” by P.C.Jabin Science College, Hubballi from 10.08.2020 to 14.08.2020.
- Webinar on “E-resources for teaching and learning” by Avanthi group of Colleges from 12.08.2020 to 13.08.2020.
- FDP on “Artificial Intelligence and Deep Learning” by 360Digi TMG from 17.08.2020 to 28.08.2020.
- FDP on “Cyber Security in Practical aspects” by Vasavi College of Engineering from 01.09.2020 to 05.09.2020.
- FDP on “Digital mind mapping for online teaching and Learning and G-tools” by Vignan's institute of Management and technology for Women from 02.09.2020 to 06.09.2020.
- FDP on “Life Skills-Emotional Intelligence” by St Martins Engineering College from 21.09.2020 to 25.09.2020.
- FDP on “ Blockchain Technology and Its Applications” by Sridevi Women’s Engineering College from 03.12.2020 to 08.12.2020.

M Vinod- Associate Professor

- A one-day seminar on lead India vision 2020 at JNTU Masab Tank, Hyderabad.

M Vineela-Associate Professor

- FDP on Python web application framework using FLASK and DJANGO Organized by Pallavi Engineering College from 01/06/2020 t0 06/06/2020.
- FDP on Cyber Security Organized by Shreyas Institute of Technology from 19/06/2020 to 24/06/20.
- FDP on Python Organized by Dept of CSE, BRECW on 23/6/2020.
- FDP on FDP on Emerging Trends in Computer Science and Information Technology Organized by KPRIT from 29/6/2020 to 3/7/2020.
- FDP on NBA-OBE: Attainment of Course Outcomes(CO's), Program Outcomes(PO's),and Program specific Outcomes(PSO's) Organized by SVIET, Tirupati from 04/7/2020 to 5/7/2020.
- FDP on Deep Learning with MatLab and Python Organized by SRMIST from 13/07/2020 to 17/07/2020.
- FDP on Challenges and oppurtunities in AI and ML Organized by BKIT from 13/07/2020 to 17/07/2020.
- FDP on Personality development and Innovative pedagogies in teaching and learning before and after covid-19 Organized by CJITS, Janagoan from 03/8/2020 to 07/8/2020.
- FDP on Building your Hybrid Mobile and Web APP with Flutter and DART Organized by P.C.Jabin Science College, Hubballi from 10/8/2020 to 14/8/2020.
- FDP on Artificial Intelligence and Deep Learning Organized by Collaboration with 360Digi TMG from 17/8/ 2020 to 28/8/2020.
- FDP on Cyber Security in Practical aspect Organized by Vasavi College of Engineering from 1/9/2020 to 5/9/2020.
- FDP on Life Skills-Emotional Intelligence Organized by St Martins Engineering College from 21/9/2020 to 25/9/2020.
- FDP on Emerging Research Trends in Computer Science and Engineering (ERTCSE[1]2020) Organized by GMR Institute of Technology, Rajam from 19/10/2020 to 23/10/2020.

N Sudha Laxmaiah-Assistant Professor

- List of Workshops/FDP/Refresher courses attended
- Machine Learning using Python on 2-3 March 2020
- Introduction to IOT and Aurdino on 10-12 August 2020
- Cyber Security in Practical ASPECTS on 1-5 September 2020

K Shireesha - Assistant Professor

- Workshop on " Machine Learning using Python" from 02.03.2020 to 03.03.2020.
- Workshop on Data Structures by Destination Technologies from 29.06.2020 to 13.07.2020.
- Hands-on Workshop on Python at BRECW on 23.06.2020.
- Build Your Hybrid Mobile and Web App with Flutter and Dart at BRECW from 10.08.2020 to 14.08.2020.
- Cyber Security in Practical Aspects by Vasavi Engineering College from 01.09.2020 to 05.09.2020.
- FDP on Artificial Intelligence and Deep Learning by 360Digi TMG from 17-08-2020 to 28-08-2020.

P Sumalatha - Assistant Professor

Webinar:

- Online Webinar on "AICTE Training and Learning (ATAL) Academy Program" Organized by AICTE, New Delhi, 15th June 2020.
- Online Webinar on "Future of Data Science for Young Engineering Aspirants".
- Organized by MLRIT, Telangana, 5th June 2020.
- Online Webinar on "Cyber Security as a Career for Job Aspirants" Organized by MLRIT, Telangana, 7th June 2020.
- Online Webinar on "Python Programming" Organized by BRECW in association with NYCI and Brain O Vision Solutions, Telangana, 23rd June 2020.

Workshops:

- One Day Workshop on "Understanding Cloud Computing", BRECW, Hyderabad, 25th June 2020.
- One Day Workshop on "Python", BRECW, Hyderabad, 24th June 2020
- 5-Day Online Workshop on Universal Human Value on theme "Inculcating Universal Human Values in Technical Education" Organised by AICTE, New Delhi, 18th July 2020 - 22nd July 2020.

P Sumalatha - Assistant Professor

Faculty Development Program:

- 12 Weeks AICTE recognized FDP course on “Computer Networks and Internet Protocol” NPTEL Online Certification Course, January-April 2020.
- 5-Day National level Online Faculty Development Program on “Artificial Intelligence” Organised by VIEW in association with NYCI and Brain O Vision Solutions India Pvt. Ltd., Visakhapatnam, 22nd May 2020 – 26th May 2020.
- Online One Week ISTE Approved Short Term Training Program on “IoT and Big Data Analytcs”, Organized by Indian Society for Technical , BNCOE, Pusad, 04thJuly 2020 – 08th July 2al Level Online Short-Term ram on “Recent Trends in Computing”, Organized by NMREC, Hyderabad, 5th June 2020 – 10th June 2020.
- 5-Day Online Faculty Development Program on “Artificial Intelligence” Organised by AITS in association with Brain O Vision Solutions India Pvt. Ltd., Tirupathi, 14th July 2020 - 18th July 2020.
- 40 – hours Online Faculty Development Program on “Data Science for All” Organized by Electronics and ICT Academies - NIT Warangal, IIITDM Jabalpur and NIT Patna,27th July 2020 - 08th August 2020.
- One Week Online Faculty Development Program on “Cyber Security in Practical Aspects” Organised by VCE in association with Indian Servers, Hyderabad, 01st September 2020 - 05th September 2020.

AVS Radhika -Assistant Professor

Faculty Development Program:

- Five Days FDP on “Build Your Hybrid Mobile and Web App with Flutter and Dart(online) Organised by PC Jabin Science College Huballi on 10 August 2020 to 14 August 2020.
- 15-Day Online Faculty Development Programme on "Cyber Security " Organised by JNTUH on 24 August to 09 September, 2020.
- One Week Workshop in online Faculty Development Program on “cyber Security in PracticalAspects” Organised by Vasavi College of Engineering, Hyderabad on 1 September to 5 September 2020.
- Five Day online in FDP on “ Matlab and Python” Organised by SRM Institute of ScienceandTechnology . Chennai 13 July to 17 July 2020.
- Two Days Online Workshop on “Free and Open Source Alternative for Web Conferencing and Teaching Learning Organised by MGIT , Hyderabad on 15th and 16th July 2020.
- FDP on Artificial Intelligence and Deep Learning Organised by 360Digi TMG 17August 2020 to 28 August 2020.

P Deepthi- Assistant Professor

- Workshop on Machine Learning using Python conducted by Bhoj Reddy Engineering College for Women on 2nd and 3rd March 2020.
- One day workshop on python conducted by Bhoj Reddy Engineering College for Women in Association with Brain O Vision on 23 June 2020.
- Deep Learning in Modern Recommendation System conducted by Bhoj Reddy Engineering College For Women and Pantech E Learning on 7 July 2020.
- Deep Learning with MATLAB and Python conducted by Department of Computer Science and Engineering, SRM Institute of Science and Technology Ramapuram, Chennai from 13 July 2020 to 17 July 2020.
- Free and Open Source Alternatives for Web Conferencing and Teaching Learning conducted by Dept. of CSE, Mahatma Gandhi Institute of Technology in collaboration with Swecha from 15 July 2020 to 16 July 2020.
- Artificial Intelligence conducted by Dept Of IT, Manakula Vinayagar Institute of Technology and Pantech E Learning on 12 August 2020.
- Deep Learning Techniques CNN and RNN conducted by St.Xavier's Catholic College of Engineering and Pantech E Learning on 13 August 2020.
- Build Your Hybrid Mobile and Web App with Flutter and Dart conducted by BCA, Hubballi from 10 August 2020 to 14 August 2020.
- FDP on Artificial Intelligence and Deep Learning in Collaboration with 360Digi TMG from 17 August 2020 to 28 August 2020.
- Data Mining conducted by Sreyas Institute Of Engineering And Technology and Pantech E Learning on 18 August 2020.
- Cyber Security in Practical Aspects conducted by Vasavi college of Engineering from 1 September to 5 September 2020.

FACULTY CONTRIBUTION

Amdetect : Android Malware Detection Using Machine Learning

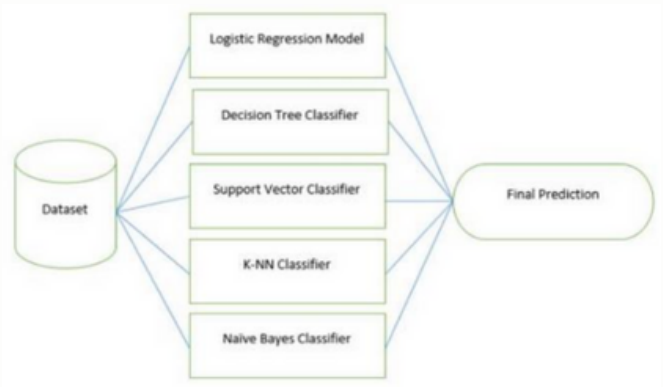
Paper Details:
Published in: Ilkogretim Online - Elementary Education Online, 2021; Vol 20 (Issue 1)
Paper Link: https://ilkogretim-online.org/index.php/pub/issue/view/23
Portal Link: https://portal.issn.org/resource/ISSN-L/0970-2555
Page No: pp. 7963-7970

Abstract:

The basic idea behind malware is to take advantage of a victim's computer resources. Recent malware evolution has made it more resilient and adaptable to accomplish a variety of objectives, including anonymity for illicit activity, sensitive data theft, and denial of service (DoS). But generally, economics is the driving force. Malware families have created a broad range of methods to get money, from straightforward blackmail via a DoS threat to sophisticated bank trojans, with the hope of eventually making some fiduciary money. Cybercriminals look for new models in this unstoppable evolution in order to make rapid money.

This method works really well with digital money. In recent years, protecting Android mobile and systems against cyberattacks has become increasingly important. Even though the majority of systems today are constructed with enhanced security features, there are still a significant number of vulnerabilities, mostly brought about by old software, unsecured protocols and systems, and human mistake. malware detection in android mobiles can take on many different forms and aim for any infrastructure, including cloud computing, Mobile and Internet of Things (IoT) devices.

Machine Learning Approaches



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

STUDENT CONTRIBUTION

A Fuzzy Multi-Objective Covering-based Security Quantification Model for Mitigating Risk of Web based Medical Image Processing System

Abstract:

Medical image processing is one of the most active research areas and has big impact on the health sector. With the arrival of intelligent processes, web based medical image processing has become simple and errorless. Web based application is now used extensively for medical image processing. Large amount of medical data is generated daily with more and more data being shared over public and private networks for the diagnosis of diseases through the web based image processing systems. Medical images like that of the CT (Computed Tomography) scan, MRI (Magnetic Resonance Imaging), X-Ray and Ultrasound images, etc., contain highly personal data of the patients. This data needs to be secured from intruders. Medical images are more sensitive to external interruption and manipulation in data may cause changes in the result. Data breaches in medical cases can lead to wrong diagnosis or even more fatal possibilities with life threatening results. So, security in web based medical image processing is a major issue. However, ensuring security for the medical images while preserving the characteristics of confidentiality, integrity, availability, etc., of medical images poses a major challenge. Working towards a feasible solution, in this study, authors are using a list of criteria for checking security level of the web based image processing system. We propose Fuzzy Analytic Hierarchy Process (FAHP) combined with Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) in the list of criteria that affect the security assessment in medical image processing. At the results we see that FAHP-TOPSIS produce good results in security checking in web based medical image processing system. At the data analysis section all the steps showed which is involved in our model. Keywords-Web based medical image processing; fuzzy analytical hierarchy process; TOPSIS method.

By:
17321A0504- S Amala
17321A0513- E Bhargavi

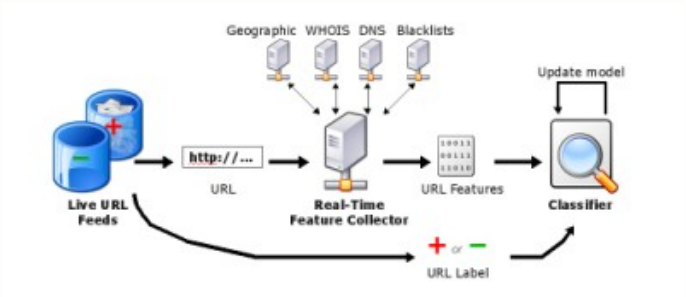
STUDENT CONTRIBUTION

Malicious URL Detection using Deep Learning

Abstract

Malicious Uniform Resource Locator (URL), a.k.a. malicious website is a primary mechanism to host unsolicited content, such as spam, malicious advertisements, phishing, drive-by exploits, to name few. There is imperative to detect the malicious URLs in a timely manner. Previous studies have used blacklisting, regular expression and signature matching approaches. These approaches are completely ineffective at detecting variants of existing malicious URL or entirely newly found URL. This issue can be mitigated by proposing the machine learning based solution. This type of solution requires an extensive research in feature engineering and feature representation of security artifact type e.g. URLs. Moreover, feature engineering and feature representation resources must be continuously reformed to handle the variants of existing URL or entirely new URL. In recent times, with the help of deep learning, artificial intelligent (AI) systems achieved human-level performance in several domains and even outperformed human vision in several computer vision applications. They have the capability to extract optimal feature representation by itself by taking the raw inputs. To leverage and transform the performance improvement of them towards the cyber security domain, we propose Deep URL Detect (DUD) in which raw URLs are encoded using characters level embedding. Character level embedding is a state of the art method in NLP for representing character in numeric format. Hidden layers in deep learning architectures extract features from character level embedding and then feed forward network with a non-linear activation function estimates the probability that the URL is malicious. In this work, we evaluate various state of the art deep learning based character level embedding methods for malicious URL detection. The optimal deep learning based character level embedding model is selected by conducting various experiments. All the experiments of various deep learning based character level embedding models are run till 500 epochs with learning rate 0.001. The performance obtained by proposed method, DUD is closer and computationally inexpensive in compared to various state of the art deep learning based character level embedding methods in all test cases.

System Architecture



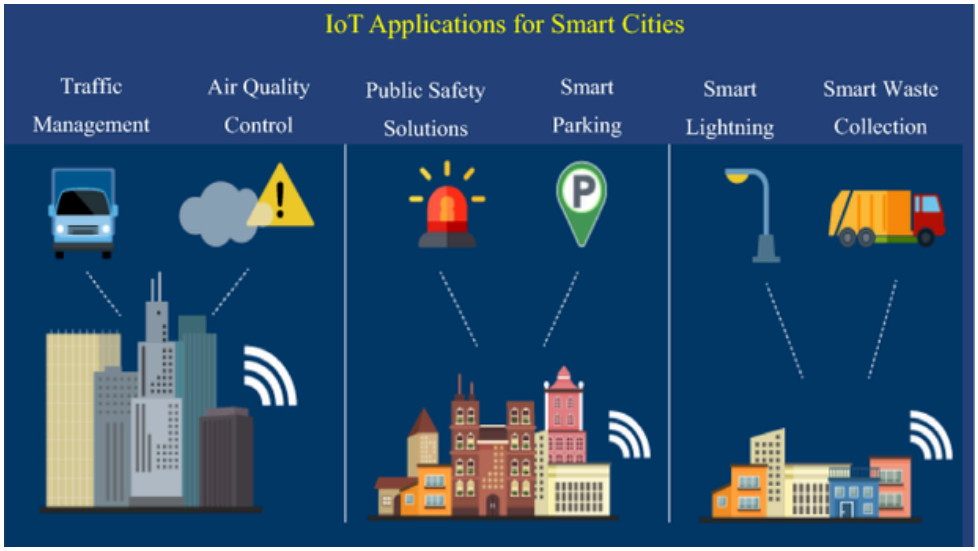
By:
17321A0560- J Navya
18325A0511- Rayeesa Khanam

STUDENT CONTRIBUTION

Exploring Internet of Things, Mobile Computing and Ubiquitous Computing in Computer Science Education: A Systematic Mapping Study

Abstract:

Ubiquitous computing, mobile computing and the Internet of Things (UMI) have been widely used in several application areas. To date, methods and techniques for the application of these technologies in real life situations have continued to emerge; however, their use in education settings focusing on existing practices remain largely underexplored. A systematic mapping study (SMS) method was herein used to map initially identified 395 articles with the aims of systematically analyzing and presenting the evidence from the literature on the topic, and to identify important gaps as well as promising research directions. An appropriate methodological protocol has been adopted from the literature for the analysis, filtering, evaluation and report of the evidence. As a result, twenty-five studies have been selected and analyzed. The axes of analyzing systematically the literature were inspired by an existing UMI learning ecology. The analysis revealed important characteristics of existing UMI related educational practices in all levels of education, including contexts and actors involved, methods and digital tools used, affordances and learning approaches important for achieving effective learning in IoT, Mobile and Ubiquitous Computing domain.



By:
17321A0574- R Raghavi
17321A0589- M Samyuktha

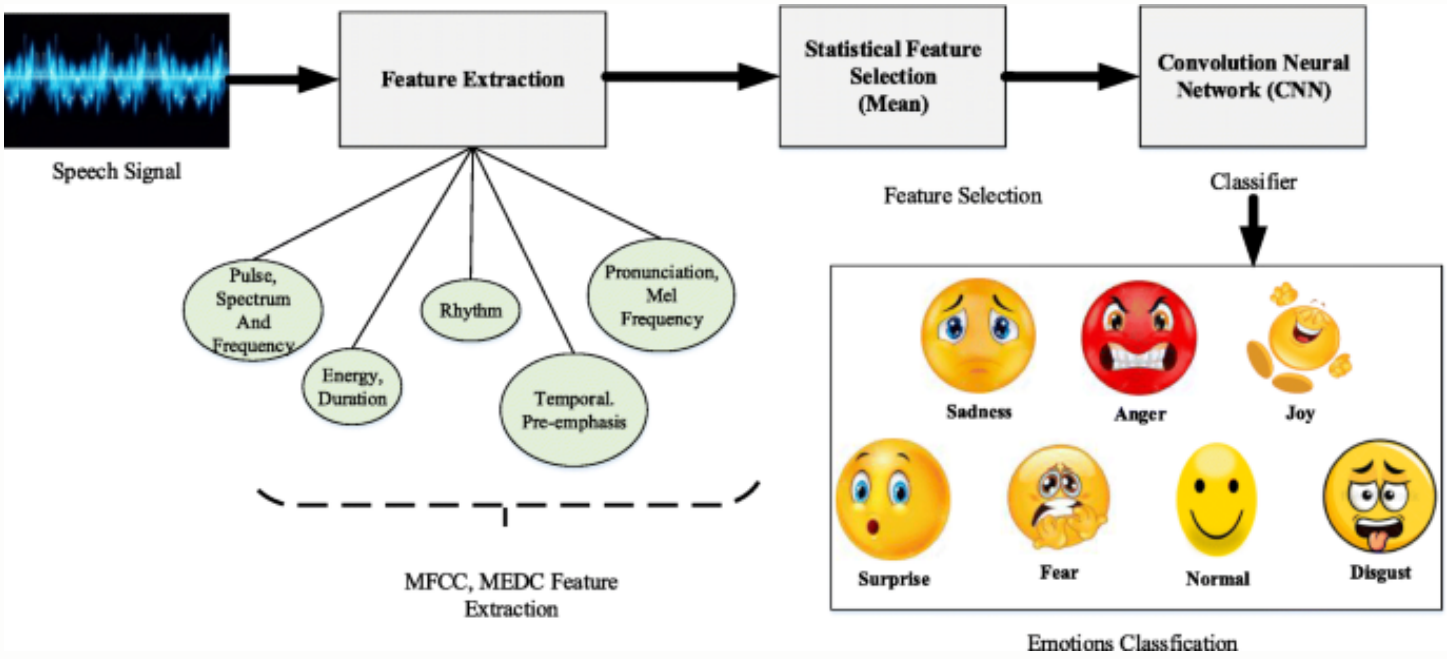
STUDENT CONTRIBUTION

Recurrent neural network based speech recognition using MATLAB

Abstract:

The purpose of this paper is to design an efficient recurrent neural network (RNN) based speech recognition system using software with long short-term memory (LSTM). The design process involves speech acquisition, pre-processing, feature extraction, training and pattern recognition tasks for a spoken sentence recognition system using LSTM-RNN. There are five layers namely, an input layer, a fully connected layer, a hidden LSTM layer, SoftMax layer and a sequential output layer. A vocabulary of 80 words which constitute 20 sentences is used. The depth of the layer is chosen as 20, 42 and 60 and the accuracy of each system is determined. The results reveal that the maximum accuracy of 89% is achieved when the depth of the hidden layer is 42. Since the depth of the hidden layer is fixed for a task, increased performance can be achieved by increasing the number of hidden layers.

Process Model



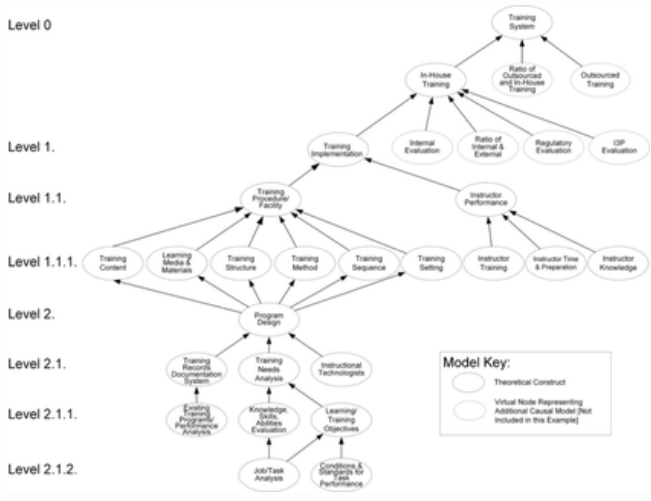
By:
17321A05A3- G Sowmya
17321A05B2- S Umasree Rajeswari

STUDENT CONTRIBUTION

Genetic Algorithm Based Deep Learning Model Selection for Visual Data Classification

Abstract:

This paper is a product of a line of research that uses the Socio-Technical Risk Analysis (SoTeRiA) theoretical framework and Integrated PRA (I-PRA) methodological framework to theorize and quantify underlying organizational mechanisms contributing to socio-technical system risk scenarios. I-PRA has an input module that executes the Data-Theoretic (DT) approach, where "data analytics" can be guided by "theory." The DT input module of I-PRA has two sub-modules: (1) DT-BASE, for developing detailed grounded theory-based causal relationships in SoTeRiA, equipped with a software-supported BASEline quantification utilizing information extracted from academic articles, industry procedures, and regulatory standards, and (2) DT-SITE, using data analytics to refine and measure the causal factors of SoTeRiA based on industry event databases and using Bayesian analysis to update the baseline quantification. This paper focuses on the advancement of DT-SITE, contributing to the integration of text mining with the measurement of organizational factors for PRA, and demonstrating the following methodological elements and steps in DT-SITE: (Element 2.1) Text mining: (Step i) collect and pre-process unstructured text data, (Step ii) identify theory-based seed terms based on DT-BASE causal model, (Step iii) generate features, and (Step iv) build and evaluate classifiers (e.g., by using Support Vector Machine [SVM]); and (Element 2.2) Estimating probabilities and their associated uncertainties. The DT-SITE methodology is applied in a case study targeting the "training system" in Nuclear Power Plants (NPPs) and using Licensee Event Reports (LERs) from the U.S. nuclear power industry, where LER-specific data extraction and pre-processing tools are developed.



Work Flow

By:
18321A0510- A Bhavana
18321A0516- P Hamsika

STAFF ACHIEVEMENTS

Recognizing 20 Years' of Service

Mrs K Usha Rani is currently employed as an Associate Professor in the Department of Computer Science and Engineering. She held the position of Head of the Department for the CSE branch from 2021 to 2023.

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

Felicitation to Mrs K Usha Rani and other staff for successful completion of 20 years in BRECW

Mrs K Usha Rani sharing her experience during felicitation Program

Academic Year: 2020-21

Volume 3

TECHNICAL MAGAZINE

CSE
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BRECW

Sparkles

Magazine Details:

Editors:

Chief Editor: Mr N Satyanandam

Faculty Editor: Ms P Sumalatha

Student Editors:

Ms P Bhargavi-18321A0508

Ms P Sai Sudha-18321A0578

Ms M Soumya-17321A05A2