



# ICDML 2020

*A Two Day AICTE sponsored Online International Conference  
on Data Science, Machine Learning and it's Application.*

**9th and 10th October, 2020**



**SRIDEVI WOMAN'S ENGINEERING COLLEGE**  
**Vattlnagulapatly, gandipet, Hyderabad-500075**  
**Approved by AJCTE & Govt. of Telangana, Affiliated to**  
**JNTUH,**  
**Accredited by NBA, and NAAC,**  
**An ISO 9001:2015 Certified Institution**



# **Data Science, Machine Learning and It's Application.**

**E-ISBN: 978-81-910762-3-3**

**ICDML2020**

9<sup>th</sup> and 10<sup>th</sup> October, 2020

**SRIDEVI WOMAN'S ENGINEERING COLLEGE**  
Vattlnagulapatly, gandipet, Hyderabad-500075  
Approved by AJCTE & Govt. of Telangana, Affiliated to JNTUH,  
Accredited by NBA, and NAAC,  
An ISO 9001:2015 Certified Institution



## **Editors**

### **Chief Editor**

Dr. B. L. Malleswari  
Principal, SWEC, Hyderabad

### **Editor**

Dr. S. Jagadeesh  
Professor ECE, SWEC, Hyderabad  
Dr. K. Mohnram  
Professor ECE, SWEC, Hyderabad  
Dr. P. Avinash  
Professor ECE, SWEC, Hyderabad

### **DISCLAIMER**

The authors are solely responsible for the contents published in this book. The publishers or editors do not take any responsibility for the same in any manner. Errors, if any, are purely unintentional and readers are requested to communicate such errors to the editors or publishers to avoid discrepancies in future.

This work is subjected to copyright. All rights are reserved by the publisher, whether the whole or part of the content is concerned, and the rights of translation, reprinting, reuse of illustrations, recitation, and information storage by dissimilar methodology now known or hereafter developed.

The publisher, author and the editors are safe to assume that the advice and information in this proceeding are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editor's give warranty, with respect to the material contained in the proceeding or any errors or omissions that may have been made.

**E- ISBN: 978-81-910762-3-3**

**MRP Rs. 500/-**

Publishing, Typeset & Distribution by  
InSc PUBLISHING HOUSE (IPH)  
Pushpagiri Complex, Beside SBI  
Housing Board, K.M. Road  
Chikkamagaluru Karnataka  
Tel.: +91-7619574868  
E-mail: [iph@insc.in](mailto:iph@insc.in)

## Proceedings messages



It gives me immense pleasure to be a part of the Two day AICTE sponsored Online International Conference on “Data Science, Machine Learning and its applications”. I would like to congratulate the entire SWEC team for organizing this conference and wish you all success in its execution.

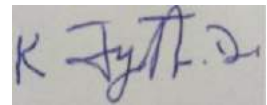
ICDML2020 is a perfect platform to collaborate with experts into Data Science and Machine Learning who will showcase high-end research papers and its applications that can solve social and economic problems.

This pandemic has changed the way we use technology and stay remotely connected and yet be productive. Smart cities, digital learning and work from home have become the “new normal”.

ICDML2020 aims to witness knowledge sharing and showcasing of machine learning and data science products by scientists and practitioners from academia and Industry. Be it any industry today; Information Technology, Banking, Finance and Healthcare automation and innovation is revolutionizing almost everything.

This conference will discuss and bring everything which may be of interest to persons with an inclination towards computing, Data Science and Machine Learning.

All the best to you all!

A handwritten signature in blue ink, appearing to read 'K Jyothi Devi'.

Smt. K. Jyothi Devi  
Chairperson  
Sridevi Education Society

## Principal Message



It is my privilege to announce that the proceedings of ICDML2020 are ready for publication. The conference proceedings give an insight into the scope of the imagination, creativity and research depth of our participants. I applaud the editorial team for the hard work and dedication they have invested in realizing this goal, and wish all the participants and colleagues great success in all their future endeavours.

ICDML2020 conference aims to provide a platform for researchers across the globe to present their innovative ideas and share technical knowledge on Data Science, Machine Learning and their applications. This conference encourages own copyright papers in the diverse domains pertaining to the field of Data Science and Machine Learning. The participants will be benefited by mutual exchange of ideas and research innovations. The conference proceedings aim to publish quality and unpublished work.

I congratulate the team of faculty for their tireless efforts that have come to fruition in the form of this conference proceeding. I wish it all success and hope that this tradition that has been set by the current team will be carried through by the following generation of the college.

I express my sincere gratitude to the Management of SWEC for motivating and supporting us in the path to realize our vision and enable us to take the Institute to scale new heights.

A handwritten signature in green ink that reads "M Malleswari". The signature is written in a cursive style and is positioned above the printed name of the principal.

Dr. B.L. Malleswari  
Principal  
Sridevi Women's Engineering College

## Editorial



We are delighted to bring out the ICDML2020 proceedings despite the current pandemic situation. It is a moment of pride for us to have organized the Two day AICTE sponsored Online International Conference in Data Science, Machine Learning and its applications. The aim of the conference is to publish good quality papers that are original and credible. The papers of the scholars have significantly contributed to the effectiveness and equitability of scientific information disseminated.

The participants selected their topics from a wide range of options and published their research papers that demonstrate knowledge and expertise. We are glad to have received good feedback from the multidisciplinary audience who participated in the conference.

We received close to 321 abstracts from research scholars, faculty and professors. The technical committee reviewed and selected the best papers from those for oral presentations. 70 papers were selected and they were given the opportunity to present. This volume contains 36 Data Science and 34 Machine Learning papers. Research papers published in this issue are expected to be of much interest to the readers.

On behalf of all the committees, I would like to express my deep gratitude to everyone who has showed immense interest and passion to submit such a variety of abstracts, share their presentations and articles for publication.

I would like to thank the Technical Committee and the Advisory Board for their expertise and support in reviewing and shortlisting the research papers.

I would like to thank the Editorial committee who in coordination with other committees has showed us an exemplary example of team work and excellent planning in bringing out this issue on time.

Dr. S Jagadeesh  
Editor  
SWEC

## Message from Guest



**Smt. P. SABITHA INDRA REDDY**  
**MINISTER FOR EDUCATION**  
Government of Telangana.

I am glad to note that Sridevi Women's Engineering College is organizing a two day online International Conference and would like to congratulate the Management, the Principal and the faculty of Sridevi Women's Engineering College.

I am sure this conference on Data Science, Machine Learning and its applications will offer a great platform to the Academicians, Research Scholars, Faculty and Industry practitioners for the exchange of the latest developments, ideas and research.

I wish this conference to be a splendid event, both in terms of intellectual quality and social gratification. You have the right mix of topics, diverse set of speakers and high-level array of participants that will definitely make it a successful event.

My best wishes to you all for making it very engaging and insightful conference with great learning experience during this pandemic situation.

A handwritten signature in black ink, appearing to read 'P. Sabitha Indra Reddy'.

**(P.SABITHA INDRA REDDY)**



# ONLINE INTERNATIONAL CONFERENCE

## ON DATA SCIENCE, MACHINE LEARNING & IT'S APPLICATIONS (ICDML 2020)

### October 09<sup>th</sup>-10<sup>th</sup>, 2020



**Chief Patron**  
**Mrs. K.Jyothi Devi**  
Chair Person

**Patron**  
**Dr. K.Radha Kishan Rao**  
Vice Chairman

**Coordinator**  
**Dr. B.L.Malleswari**  
Principal

**Co-Coordinator**  
**Dr. D.Padmavathi**  
Professor & EEE HoD

Organized By:

**SRIDEVI WOMEN'S ENGINEERING COLLEGE**

Affiliated to JNTU Hyderabad | Approved by AICTE | Accredited by NBA & NAAC | An ISO 9001:2015 Certified Institute | Established in 2001  
Near Wipro, Gopandaly, Vattinaguluzally, Hyderabad, Telangana - 500 075



- Abstract and Registration Start Date - July 30<sup>th</sup>, 2020
- Abstract and Registration End Date - Aug. 31<sup>st</sup>, 2020
- Paper Submission Last Date - Sept. 10<sup>th</sup>, 2020
- Paper Selection Last Date - Sept. 15<sup>th</sup>, 2020
- Paper Presentation Confirmation Date - Sept. 20<sup>th</sup>, 2020

#### ABOUT ICDML 2020

Sridevi Women's Engineering College is organizing an International Conference sponsored by AICTE on Data Science, Machine Learning and its Applications (ICDML2020).

The conference provides a premier forum that brings together Research Scholars, Faculties, Industry practitioners, as well as developers and users in Electronics, Electrical, Computer Science, and Information technology for the exchange of the latest theoretical developments in Data Science and Machine Learning and their applications.

The Conference invites submission of papers describing innovative research on all aspects of Data Science and Machine Learning as well as application-oriented papers that make significant, original, and reproducible contributions to improving the practice of Data Science and Machine Learning analytics in real-world scenarios.

ICDML2020 offers a knowledge sharing opportunity at two levels – research track and use of new research methodology.

ICDML2020 will also feature a peer-reviewed Industry session, whose purpose is to showcase recent and early-stage research developments on topics that are of interest to Faculty and industry practitioners in Data Science and Machine Learning.

#### CONFERENCE TOPICS

We welcome original research papers on all aspects of data science in relation to machine learning, including but not limited to the following topics:

- \* Auto-ML
- \* Fusion of information from disparate sources
- \* Feature engineering, Feature embedding, and data preprocessing
- \* Learning from network data
- \* Learning from data with domain knowledge
- \* Evaluation of Data Science systems
- \* Risk analysis
- \* Causality, learning casual models
- \* Deep learning
- \* Autonomous systems
- \* Analysis of Evolving Social Networks
- \* Embedding methods for Graph Mining
- \* Online Recommender Systems
- \* Augmented Reality, Computer Vision
- \* Green Data sciences
- \* Cloud computing
- \* 5G communication and systems
- \* Cyber security and Forensic science
- \* Cybersecurity management and AI
- \* IOT data analytics and Big Data
- \* Ethics and explainability
- \* Power Electronic Converters and Control Systems
- \* High Voltage Engineering
- \* Electric Machines and Drives
- \* Renewable Energy Resources
- \* Distributed Generation and Grid Interconnection
- \* Electric Vehicles
- \* Energy Storage & Battery Charging Techniques
- \* Power Quality issues
- \* Microgrid & Smartgrid

**NO REGISTRATION FEE**

#### TECHNICAL COMMITTEE

- Dr. TKS Rathish Babu - Professor CSE
- Dr. D. Padmavathi - Professor EEE
- Dr. S. Jagadeesh - Professor, ECE
- Dr. Siva Nagi Reddy Kalli - Professor, ECE
- Dr. P. Suresh Kumar - Professor, ECE
- Dr. Sarda Inderjeeth Singh - Professor, ECE
- Dr. V. Anantha Krishna - Professor, CSE
- Dr. A. Ganga Dinesh Kumar - Professor, EEE
- Dr. P. Avinash - Professor, IT
- Dr. U. Madhavi - Asso. Professor, CSE
- Mrs. C. Swapna - Asst. Professor, IT
- Mrs. N. Sinsha - Asst. Professor, CSE

#### ORGANIZING COMMITTEE

- Mrs. E. Krishnaveni Reddy - Asso. Professor, CSE
- Mrs. Kavitha B - Asso. Professor, ECE
- Mr. Dorababu G - Asso. Professor Engg. Chemistry
- Mrs. G. Vasundara - Asst. Professor, S&H
- Mrs. M. Pragathi - Asso. Professor, CSE
- Mrs. Sujatha Kumari - Asso. Professor, CSE
- Mrs. G.V. Swathi - Asso. Professor, EEE
- Mrs. D. Swathi - Asst. Professor, EEE

#### ADVISORS

- Dr. K.C.Ravi Kumar - S&H HoD
- Dr. U. Padmavathi - MBA HoD
- Dr. A. Narmada - ECE HoD
- Dr. A. Gautami Latha - CSE HoD
- Dr. K. Sivanagi Reddy - IQAC Head
- Mrs. M. Kavitha - Asso.Prof. & MOD-IT
- Mr. D. Subramanyam - Placement Head
- Mrs. M. Sandhyarani - Training Head

#### EDITORIAL BOARD

- Dr. S. Jagadeesh - Professor, ECE
- Dr. P. Suresh Kumar - Professor, ECE
- Dr. Sarda Inderjeeth Singh - Professor, ECE
- Dr. Sandhyarani Palluri - Professor, S&H
- Dr. P.V.H.S Sai Kumar - Professor, S&H
- Mrs. C.Swapna - Asst. Professor, IT

#### PLAGIARISM COMMITTEE

- Dr. U. Padmavathi - Professor, MBA
- Dr. P. Avinash - Professor, IT
- Mrs. H. Shanli - Asso. Professor, ECE
- Mr. A. Rajasham - Asso. Professor, S&H
- Mrs. K. Siriranga Lakshmi - Asso. Professor, MBA
- Mrs. S. Radhika - Asst. Professor, CSE

#### PAPER SUBMISSION

Authors are invited to submit their Papers through Easy chair link mentioned below:  
<https://easychair.org/cfo/ICDML2020>

#### PUBLICITY COMMITTEE

- Mr. D. Subramanyam - TPO
- Dr. B. Narendra Kumar - Professor, CSE
- Mr. K. Rajasekhara Rao - Asso. Professor, CSE
- Mr. Srihar - Asst. Professor
- Mr. K. Srinivas Reddy - Asst. Professor, CSE

#### WEBSITE COMMITTEE

- Dr. Ramasubramaniam - Professor, CSE
- Dr. MohanRam K - Professor, ECE
- Mr. K. Tulasi Ram - Asso. Professor, ECE
- Mr. P. Prashanth Kumar - Asst. Professor, CSE
- Mrs. Sharmal Itikar - Asst. Professor, IT
- Mrs. Manasa A - Asst. Professor, IT

#### FINANCE COMMITTEE

- Mr. P. Venkat Rao - Admin Officer
- Mr. Kiran Kumar - Admin Officer
- Mr. Y. Veerabhadra Rao - Accounts officer
- Mr. Venkateswaru K - Accounts Officer
- Mr. K. Sudhakar - Auditor

#### NETWORK COMMITTEE

- Mr. D. Nirmal Kumar - System Admin
- Mr. D.K.S Narayana - System Admin
- Mr. Venkat Reddy - Asst. System Admin

#### INTERNATIONAL EDITORIAL BOARD

- Ms. Annapurna Vadiamari - Validation Engineer, Intel/Corp. California
- Mr. Suman Kumar Kalaganti - Sr Software EngineerABB, Finland
- Mr. Pransy Kumar Devuluri - Programmer Analyst,INFOSYS, Texas
- Ms. Rajani Kuncha - Technical Lead WIPRO, New York
- Mr. Chenna Reddy Madi Reddy - Pentagon/FederalCreditUnion, Ohio
- Mr. Paul Devos - Senior data scientist, AWS DATA ARCHITECT BELLESE TECHNOLOGIES, Maryland
- Mr. Ramesh Kothamasu - IT Architect Advisory, IBM, Philadelphia

#### INTERNATIONAL TECHNICAL ADVISORY BOARD

- Mr. Varma Kunesaraju - CEO, Qsprmp, San Francisco
- Ms. Shanmukha Priya - Siemens Mobility, Data Scientist, Atlanta
- Ms. Julie Johny - DataAnalyst, IBM COGNOS DEVELOPER,Canada
- Mr. Viswanth - System Engg, Aptus Infotech, Oman
- Mr. Harish Kandala - Data Analyst, VISA INC, New York
- Ms. RamyaKrishna Nalamisungara - Microsoft, Seattle
- Mr. Sreerivasulu Penagaluru - Manager, Cargomini, Birmingham

Our Sincere thanks to Vice Chancellor-JNTUH, Registrar-JNTUH, Rector-JNTUH, DAP-JNTUH and All the HoDs & Faculty-JNTUH, Hyderabad



#### ABOUT SWEC

Sridevi Women's Engineering College (SWEC) was established in the year 2001 with the approval from AICTE, New Delhi and Government of A.P. The College is affiliated to J.N.T.U. Hyderabad and is sponsored by Sridevi Education Society. The core objective of the institution is to contribute to the Educational needs of State and Nation, with an emphasis on promoting girl education and women empowerment.

Sridevi Women's Engineering College provides an excellent academic environment and latest learning resources to help students make the most out of their career goals.

The Institute, besides aiming at shaping its students into healthy and disciplined young citizens of character and culture, places emphasis on practical and professional experience so as to enable them to secure employment in industries immediately after completion of their studies and also become entrepreneurs. The Institute is developing close contact with a large number of industries situated in and around Hyderabad for mutual benefit.

#### Vision

To attract the finest talent by creating an atmosphere conducive to learning and to train and empower female professionals with global skills thereby assigning their legitimate place of honour in the society.

#### Mission

- To create a center for excellence in engineering by imparting knowledge and skills.
- To facilitate women empowerment by enhancing their technical competency and intellectual capabilities.
- To create a conducive work environment with an equally competent and experienced team that derives strength from each other.

#### PUBLICATIONS

All selected Papers for Presentation will be Published in any one of the following list of Journals as per Participant's choice:

- \* SCI /SPRINGER /ELESIVER /WILEY JOURNALS
  - a. MSSP-SPRINGER, ISSN: 0923-6082
  - b. SCIAS-SPRINGER, ISSN: 2210-5379
- \* Web of Science /ESCI / UGC Care Group-II Journals
  - a. IJFCN, ISSN: 2233-7857
  - b. IJGDC, ISSN: 2005-426
  - c. IJDRBC, ISSN: 2207-8363
- \* Indexed in UGC Care and UGC approved Journals
  - a. IJERT, ISSN: 2278-0181
  - b. D.R.S. Research Journal, ISSN, 2347-7180

#### ADDRESS FOR CORRESPONDENCE

**Dr. P.Avinash** - Professor, IT  
+91 99633 05127

**Dr. K.Mohan Ram** - Professor, ECE  
+91 81245 46545

**Mr. K.Tulasi Ram** - Asso. Professor, ECE  
+91 99480 89322

**Mrs. E.Krishnaveni** - Asso. Professor, CSE  
+91 97017 58883



For queries, write to: [organizingchair\\_icdml2020@swec.ac.in](mailto:organizingchair_icdml2020@swec.ac.in)





A Two Day AICTE Sponsored

October 09<sup>th</sup>-10<sup>th</sup>, 2020

(ICDML 2020)

# ONLINE INTERNATIONAL CONFERENCE

ON DATA SCIENCE, MACHINE LEARNING & IT'S APPLICATIONS



**Chief Patron**

Mrs. K.Jyothi Devi - Chair Person

**Patron**

Dr. K.Radha Kishan Rao - Vice Chairman

**Coordinator**

Dr. B.L.Malleswari - Principal

**Co-Coordinator**

Dr. D.Padmavathi - Professor & EEE HoD

**Organizing Committee Coordinator**

Mrs. E.Krishnaveni Reddy - Asso.Prof. CSE

**Technical Committee Coordinator**

Dr. TKS Rathish Babu - Professor CSC

**Editorial Board**

Dr. S.Jagadeesh - Professor ECE

**Plagiarism Coordinator**

Dr. U.Padmavathi - Professor & MBA HoD

**Publicity Coordinator**

Mr. D.Subramanyam - TPO

Dr. B.Narendra Kumar - Professor CSE

**Website Coordinator**

Dr. Ramasubramaniam - Professor CSE

**Finance**

Mr. P.Venkatrao - Admin. Officer

**Network Committee**

Mr. D.Nirmal Kumar - System Admin

**Advisors**

Dr. K.C.Ravi Kumar - S&IT HoD

Dr. U.Padmavathi - MBA HoD

Dr. A.Narmada - ECE HoD

Dr. A.Gautami Latha - CSE HoD

Dr. K.Sivanagi Reddy - IQAC Head

Mrs. M.Kavitha - Asso.Prof. & HOD-IT

Mr. D.Subramanyam - Placement Head

Mrs. M.Sandhyarani - Training Head

### Call for Papers

Papers are invited on below listed Topics:

- \* Power Electronics Converters and Control systems
- \* Fusion of information from disparate sources
- \* Cyber security and Forensic science
- \* Learning from network data
- \* Learning from data with domain knowledge
- \* Evaluation of Data Science systems
- \* Risk analysis
- \* Causality, learning casual models
- \* Deep learning
- \* Autonomous systems
- \* Analysis of Evolving Social Networks
- \* Embedding methods for Graph Mining
- \* Online Recommender Systems
- \* Augmented Reality, Computer Vision
- \* Green Data sciences
- \* IoT data analytics and Big Data
- \* Cloud computing

Contributions must contain new, unpublished, original and fundamental work relating to the Machine Learning journal's mission. All submissions will be reviewed using rigorous scientific criteria whereby the novelty of the contribution will be crucial.

### NO REGISTRATION FEE

#### Important Dates

- Abstract and Registration Start Date - July 30<sup>th</sup>, 2020
- Abstract and Registration End Date - Aug. 31<sup>st</sup>, 2020
- Paper Submission Last Date - Sept. 10<sup>th</sup>, 2020
- Paper Selection Last Date - Sept. 15<sup>th</sup>, 2020
- Paper Presentation Confirmation Date - Sept. 20<sup>th</sup>, 2020

#### Paper Submissions

Authors are invited to submit their Papers through Easy chair link mentioned below:

<https://easychair.org/cfp/ICDML2020>



#### Address for Correspondence

- Dr. P.Avinash - Prof., IT +91 98633 05127
- Dr. K.Mohan Ram - Prof., ECE +91 81245 46545
- Mr. K.Tulasi Ram - Asso.Prof., ECE +91 99480 89322
- Mrs. E.Krishnaveni - Asso.Prof. CSE +91 97017 98863

For queries, write to: [organizingchair\\_icdml2020@swec.ac.in](mailto:organizingchair_icdml2020@swec.ac.in)

#### Publications

All selected Papers for Presentation will be Published in any one of the following list of Journals as per participant's choice:

- \* SCI /SPRINGER /ELESIVER /WILEY JOURNALS
  - a. MSSP-SPRINGER, ISSN: 0923-6082
  - b. SCIAS-SPRINGER, ISSN: 2210-5379
- \* Web of Science /ESCI / UGC Care Group-II Journals
  - a. IJFCN, ISSN: 2233-7857
  - b. IJGDC, ISSN: 2005-426
  - c. IJDRBC, ISSN: 2207-8363
- \* Indexed in UGC Care and UGC approved Journals
  - a. IJERT, ISSN: 2278-0181
  - b. D.R.S Research Journal, ISSN: 2347-7180



## SRIDEVI WOMEN'S ENGINEERING COLLEGE

Affiliated to JNTU Hyderabad | Approved by AICTE | Accredited by NBA & NAAC |

An ISO 9001:2015 Certified Institute | Established in 2001

Near Wipro, Gopanpally, Vattinagulapally, Hyderabad, Telangana - 500 075



## Content

<b>An Efficient Kannada Language based Agricultural Helpline system for Agriculturist using IoT.....</b>	<b>01</b>
<i>Anjani Hegde, Rishma Mary George, Ranjith H D, Bhargavi K Rao, Nischitha L</i>	
<b>An Ensemble of Convolution Neural Network For Diabetic Retinopathy Detection.....</b>	<b>06</b>
<i>Simi Sanya, Seetha Maddala</i>	
<b>Kmeans Clustering to Cluster the Clients into Different Segments based on spending using Python.....</b>	<b>13</b>
<i>Imran Qureshi, Burhanuddin Mohammed, Mohammed Abdul Habeeb</i>	
<b>A Convolutional Neural Network Approach to Identify Presence of Autism in Facial images.....</b>	<b>18</b>
<i>Amrita Budarapu, Dr. Nara Kalyani</i>	
<b>Determining the Preparedness of the German Government and Medical Authorities in handling COVID-19 Crisis.....</b>	<b>33</b>
<i>Narayana Darapaneni Director – AIML, Debajyoti Das, Aranya Das, Varun Sivasubramanian, Anwesh Reddy Paduri-Great Learning</i>	
<b>Statistical Analysis and Outbreak Prediction of Covid-19 in India.....</b>	<b>42</b>
<i>Malvika Tiwari<sup>1</sup>, Pranav Saini<sup>2</sup>, Prince Kumar Jaiswal<sup>3</sup>, Shival Gupta<sup>4</sup>, Vikas<sup>5</sup>, Narayana Darapaneni*, Anwesh Reddy Paduri* Great Learning</i>	
<b>A Decision- Support Tool for Optimum Loan to Asset Value.....</b>	<b>50</b>
<i>Subramanian Gopalakrishnan, Apurva Dhingra, FRM®, Sahil Linjhara, George Varghese, Ankush Kharbanda, Indumathi Taneja</i>	
<b>Fuzzy methodologies for Forecasting Usage and Wet Bulb Data Variables.....</b>	<b>56</b>
<i>Avatharam Ganivada</i>	
<b>COVID-19: Prediction of Confirmed Cases, Active Cases and Health Infrastructure Requirements for India.....</b>	<b>65</b>
<i>Shruti Chikode, Nutan Hindlekar, Pranali Padhye,</i>	

---

# All the authors have equally contributed

\*Corresponding author, Guide

<b>Estimating the Incubation Period of COVID-19 (SARS-CoV-2) Virus.....</b>	<b>74</b>
<i>Sandeep Nair, Viraj Shah, Sameer Sawant, Vandit Deshmukh</i>	
<b>Regression Model based Prediction on COVID-19 Confirmed Cases, Recoveries and Deaths in India.....</b>	<b>83</b>
<i>Sourabh Verma, Ankit Namdeo Siddhartha Khushu, S. Sainath, Tarun Kr.</i>	
<b>Feature Based Visual Analysis of Indian Railways Station Data with a statistical approach for Train Delay Prediction.....</b>	<b>91</b>
<i>Dr. V.Asha, Heena Gupta, Dr. B. Meenakshi Sundaram</i>	
<b>Exploring Clustering Techniques for Microarray Gene Expression Data.....</b>	<b>96</b>
<i>Purnendu Mishra, Nilamani Bhoi</i>	
<b>Determining the Preparedness of the German Government and Medical Authorities in Handling COVID-19 Crisis.....</b>	<b>117</b>
<i>Narayana Darapaneni, Aranya Das, Debajyoti Das, Varun Sivasubramanian, Anwesh Reddy Paduri</i>	
<b>Implementation of Enhanced Perturb and Observe Algorithm To maximize the efficiency of Photovoltaic Module.....</b>	<b>127</b>
<i>Kakarla Deepti</i>	
<b>Quantification of Intervertebral Space of Lumbar Spine in Lower Back Pain Affected People.....</b>	<b>136</b>
<i>Praveen, Mallikarjunaswamy M. S. Chandrashekara S.</i>	
<b>Optimizing Aircraft Fuelling Operations.....</b>	<b>142</b>
<i>Revathy Ramana, Asmita Mali, Sridhar Ramanathan, Sudharshan S Iyer, Sridhar Kannan V</i>	
<b>Edge Adaptive Gradient Action Descriptor and Kernel Discriminate Analysis for Human Action Recognition.....</b>	<b>149</b>
<i>K. Ruben Raju, Dr. Yogesh Kumar Sharma, Dr. Birru Devender</i>	
<b>Electronic Word of Mouth- Decoding Customer Reviews.....</b>	<b>161</b>
<i>Payal Upadhyay, Gaurav Vashisht</i>	
<b>Estimating the Incubation Period of COVID-19 (SARS-CoV-2) Virus.....</b>	<b>172</b>
<i>Narayana Darapaneni, Vandit Deshmukh, Sameer Sawant, Viraj Shah, Sandeep Nair, Anwesh Reddy Paduri</i>	

<b>Assessment of Quality of life of Patients with Heart Failure- Exploratory Factor Analysis Approach.....</b>	<b>181</b>
<i>Lokesh.N, Venkatesan.S, Ragunath.PK</i>	
<b>Multi-Label Text Classification of News Article.....</b>	<b>190</b>
<i>V.Srividhya, P.Megala</i>	
<b>Semantic Interoperable EHR Mapping with Syndromic Surveillance to Anticipate Regional Outbreak.....</b>	<b>197</b>
<i>Dr. B. Meenakshi Sundaram, Dr.R. hirukkumaran, Dr. V.Asha, Dr.K.G.Madhwaraj</i>	
<b>Web Application for Automobile Services.....</b>	<b>204</b>
<i>Mrs. P. Poornima, Mrs.B.Swetha</i>	
<b>Understanding Online Shoppers' Purchase Intentions.....</b>	<b>215</b>
<i>Sahil Sachdeva, Kushal Maheshwari, Amitesh Bajpai, Amit Sharma, Neeraj Sharma</i>	
<b>Identifying Authors Through Idiosyncratic Usage and Stylistic Inconsistencies.....</b>	<b>225</b>
<i>Sumit Gupta</i>	
<b>COVID-19: Prediction of Confirmed Cases, Active Cases and Health Infrastructure Requirements for India.....</b>	<b>232</b>
<i>Shruti Chikode, Pranali Padhye, Nutan Hindlekar, Narayana Darapaneni Anwesh Reddy Paduri.</i>	
<b>An Alternative Measure of Unmet Need for Family Planning Among Women in India.....</b>	<b>241</b>
<i>Anita Sapre, Guddi Chauhan, Shraddha Ghosh, Swati Ranjan, Vasudha Rao, Srinivasan Ananthraman</i>	
<b>Imaging Modalities and Parameters in Diagnosis of Rheumatoid Arthritis.....</b>	<b>248</b>
<i>Mahesh Kumar A S, Mallikarjunaswamy M S, Chandrashekara S</i>	
<b>Factors Affecting Childhood Anemia in India.....</b>	<b>258</b>
<i>Bhargavi Budithi, Srinivasan Ananthraman, Jeetali Srivastava, Prerna Jain, Ritika Khandelwal, Zainab Afaq</i>	
<b>Devising Schemes based on Customer Segmentation For Gaming Industry.....</b>	<b>270</b>
<i>Akshata Salvi, Dhanshree Gaikwad, Neha Bhangale, Pranati Jha, Jatinder Bedi</i>	

<b>Analyzing and Predicting Covid-19 Cases Using Machine Learning.....</b>	<b>277</b>
<i>Dr. G. N. R. Prasad, Dr. Y. Rama Devi</i>	
<b>Detection of Localized Defects in Regular Textures with Simple and Complex Patterns.....</b>	<b>281</b>
<i>V.Asha</i>	
<b>Latest Innovations in Utilizing Drones for Electrical Infrastructure.....</b>	<b>293</b>
<i>Dr. Ashok G. Matani</i>	
<b>Design SRAM architecture with Convolution Neural Network of Machine Learning Using Flexible Read/Write Data Width Tailored For the High-Speed Applications.....</b>	<b>299</b>
<i>Bharatha Satheesh, Dr.Prabhu Benakop</i>	
<b>Credit Risk Analytics in the Oil and Gas Industry .....</b>	<b>306</b>
<i>Shamba Datta, Daisy Mary, Vinaya Pagadala, Anbu Jacob, Prabu Arumugam, P.V. Subramanian</i>	
<b>Regression Model Based Prediction on COVID-19 Confirmed Cases, Recoveries and Deaths in India.....</b>	<b>113</b>
<i>Narayana Darapaneni, Ankit Namdeo, Anwesh Reddy Paduri, Siddhartha Khushu, Sourabh Verma, S. Sainath, Tarun Kr. Mittal</i>	
<b>Deep Learning and Its Applications: A Review.....</b>	<b>321</b>
<i>Aftab Ahmad Mir, Abid Sarwar, Dr. Manoj Kuma</i>	
<b>Solving a Tasteful Problem.....</b>	<b>328</b>
<i>Hari Shankar VK, Muthukumaran Perumal –Nishanth MS – Subramanian Mannahra –</i>	
<b>Approach to Secure Communication in IOT for Automated.....</b>	<b>337</b>
<i>Upasana Sharma, Devendra Kumar</i>	
<b>Channel Estimation of OFDM System using Real coded Genetic Algorithm.....</b>	<b>346</b>
<i>Dr. C. Padmaja, Dr. B. L. Malleswari</i>	
<b>Data Science and Machine Learning Based Intelligent Model for Women Safety System.....</b>	<b>354</b>
<i>Priyanka Kohli, Dr. Kawaljeet Singh</i>	

<b>Global Terrorism: A Machine Learning (ML) Approach To Predict The Perpetrator Group Using Incident Information.....</b>	<b>365</b>
<i>Farzan Sajahan, Sendil A B, Akshaya Srivatsan, Dipanjan Goswami</i>	
<b>Health Mantra: Machine Learning based Solution for Usage of Drugs from Social Network.....</b>	<b>371</b>
<i>Shridevi Soma, Supriya B.D</i>	
<b>Novel Activation Functions Based on TanhExp Activation Function in Deep Learning.....</b>	<b>378</b>
<i>Marina Adriana Mercioni, Stefan Holban</i>	
<b>Comparative Study of HIV Protease cleavage site Prediction Using SVM_GP and Hybridization of Moth Search and Dragonfly.....</b>	<b>389</b>
<i>Navneet Kaur Bawa, Prof.Wiqas Ghai</i>	
<b>Severity Prediction of Single Transmission Line Outage using Big Data and Machine learning Techniques.....</b>	<b>394</b>
<i>Ravi V Angadi, Student, Suresh Babu Daram, P. S Venkataramu,</i>	
<b>Automation of Optimizer Selection in Roberta for Humor Detection.....</b>	<b>413</b>
<i>Hemant P, Dr. Pramod Kumar, Dr. Nirmala C R</i>	
<b>An analysis on Applications of Machine Learning Algorithms to predict COVID-19.....</b>	<b>420</b>
<i>Dr. A. P. Nirmala, Paraita Chandra</i>	
<b>A Case study on Performance of Network Topologies in MANET for Multicast Routing in wireless communication.....</b>	<b>430</b>
<i>Madas Pushpalatha, Dr.M.Srinivas, Dr.P.Ramadevi</i>	
<b>Automated Classification of Identification Documents.....</b>	<b>438</b>
<i>Apratim Banerjee, Robin George, Rajvir Singh Prajapati, Sudipto Mondal, Rohit Thakur</i>	
<b>Machine Learning approach for translating Handwritten Document to Digital form (not completed).....</b>	<b>447</b>
<i>Sunitha P, Sowmya Hegde , Shreyashree A V, Bimba Prasad, Chinmayi,</i>	
<b>Survey on Sketch Based Image Retrieval.....</b>	<b>459</b>
<i>Pallavi S Thakare, Prof. V.S. Mahalle</i>	

<b>Cloud Kitchen cooks with Actionable Insights.....</b>	<b>462</b>
<i>Vivek jodmote, Anish Karve, Arup Bansal, Sarita Upadhya</i>	
<b>Analyzing Impact of co Morbidities on Mortality in SARC-CoV-2 Positive Patients and Prediction Modeling Based on Retrospective Cohort Study for Mexico.....</b>	<b>470</b>
<i>Narayana Darapaneni, NeerajRajput, Satinder Pal Singh, Akash Wadhwa, ChetanKathooria, Anwesh Reddy Paduri</i>	
<b>A Survey: Concepts of Machine Learning and Its Applications .....</b>	<b>479</b>
<i>E KrishnaveniReddy, K Anusha, M kavitha</i>	
<b>A Cascaded Deep Network for Abnormal Region Extraction From MR Brain Images .....</b>	<b>488</b>
<i>Y Ambica, Dr. N subhash Chandra</i>	
<b>Real Time Stream Data Analysis Framework for forecasting the Marine Congestion and Crash Prevention of ships .....</b>	<b>496</b>
<i>SaraswathiKancharal, Mohanram K,Shamal Telkar, Sardar Inderjeet singh</i>	
<b>Statistical Analysis and Outbreak Prediction of Covid-19 in India.....</b>	<b>513</b>
<i>Malvika Tiwari, Shival Gupta, Pranav Saini, Vikas, Prince Kumar Jaiswal, Narayana Darapaneni, Anwesh Reddy Paduri</i>	
<b>Artificial Intelligence (AI) and Internet of Things (IoT) Systems in Renewable Energy Applications towards Optimizing Energy Production Efficiency.....</b>	<b>522</b>
<i>Dr. Ashok G. Matani</i>	
<b>Investigation on Performance Analysis of Available Machine Learning Techniques for Liver Diseases Predictions.....</b>	<b>527</b>
<i>Aishwarya R, R.Bhargavi</i>	
<b>A Survey: Concepts of Machine Learning and Its Applications.....</b>	<b>532</b>
<i>E. Krishnaveni Reddy, K.Anusha, M.Kavitha</i>	
<b>A real time Electricity Monitoring using IoT based Cloud computing.....</b>	<b>541</b>
<i>P.Omprakash, C.Rasel Priyan, E.Udayakumar</i>	
<b>Systematic Sampling-based Big Data Mining Model using Approximate Partitional Clustering.....</b>	<b>548</b>
<i>Kamlesh Kumar Pandey, Diwakar Shukla</i>	

<b>Learning Precise Timing of Multiple Spikes in Multilayer Spiking Neural Networks Using Supervised Learning Algorithm.....</b>	<b>559</b>
<i>P. Liyaz, A. Kumar, K.Sathish, P. Leelavathi, B. Surendra Reddy</i>	
<b>Exploring integration of python libraries in computation intensive Mechanical Engineering courses.....</b>	<b>568</b>
<i>Mr. Manish Patel</i>	
<b>Matched Wavelet and Extreme Learning Machine Based Classification of Voltage Sag Signals.....</b>	<b>572</b>
<i>Akanksha Aggarwal, Manish Kumar Saini</i>	
<b>A Review on Intrusion Detection System using Machine Learning Techniques.....</b>	<b>581</b>
<i>Dr. B Narendra Kumar, Dr.M S V Sivarama Bhadri Raju, Dr. B Vishnu Vardhan</i>	
<b>Internet of Things for Sustainable Development in Preserving Natural Resources.....</b>	<b>597</b>
<i>Mrs. Steffi Philip Mulamoottil, Ms. Satya Sravani Sadhu, Mrs. Deepa Patnaik</i>	
<b>Empirical Data Analysis of Crime Rate using Enhanced Ensemble &amp; Genetic Algorithms.....</b>	<b>604</b>
<i>K. Sivanagi Reddy, S. Jagdeesh, K.Tulasi Ram</i>	



# About the college

## Sridevi Women's Engineering College

was established in the year 2001 with the approval from aicte, New Delhi and Government of A.P. The College is affiliated to J.N.T.U. Telangana and is established by sridevi education socieity. The core objective of the institution is to contribute to the Educational needs of State and Nation, with an emphasis on promoting girl education and women empowerment. Our total strength sums up to 2600. The EAMCET code is SDEW and college code is D2.

Sridevi Women's Engineering College provides an excellent academic environment and latest learning resources to help students make the most out of their career goals.

### *Vision*

To attract the finest talent by creating an atmosphere conducive to learning and to train and empower female professionals with global skills thereby assigning their legitimate place of honour in the society.

### *Mission*

To create a center for excellence in engineering by imparting knowledge and skills.

To facilitate women empowerment by enhancing their technical competency and intellectual capabilities.

To create a conducive work environment with an equally competent and experienced team that derives strength from each other.



Selfpage Developer's Pvt Ltd.

E-ISBN: 978-81-910762-3-3



9 788191 076233

MRP Rs. 500/-