



**MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**  
**A College with Potential for Excellence**  
**NAAC Accredited and ISO 9001:2015 Certified**

**Number of workshops/seminars conducted on Research Methodology,  
Intellectual Property Rights (IPR), Entrepreneurship and Skill Development  
during the year**

## **Intellectual Property Rights**



# MARIS STELLA COLLEGE

(Autonomous), Vijayawada-8, A.P.  
A College with Potential for Excellence  
NAAC Accredited & ISO 9001:2015 Certified

## One-day International Webinar on Promoting IPR Culture In Higher Educational Institutes

Organised by Departments of Biotechnology and  
Food Science & Technology  
in Association with IPR CELL & IQAC

Date : 09.02.2024 Day : Friday Time: 9.15 am

### Overview of the webinar:

Intellectual property rights(IPR) are legal protections granted to owners of intangible creations of the mind, including inventions, literary and artistic works, designs, and symbols. These rights give the owner exclusive control over how their creation is used, for a limited period. It includes Patents, Copyrights, Trademarks, Trade secrets, etc. IP rights provide financial rewards and recognition to creators, encouraging them to invest in research and development. They prevent unauthorized use of creations, ensuring creators are fairly compensated for their work. Overall, IP rights play a crucial role in fostering innovation, creativity, and economic growth. However, navigating the legal landscape and addressing ethical concerns remain ongoing challenges.

### About the College:

Maris Stella was founded on 16th July 1962, to become the first college for women in the region. True to its vision and mission, the College offers quality education and maintains consistently high academic standards in an effort to give all students an equal opportunity for learning and development through holistic education which is strongly grounded in values. It is the special mission of the College to reach out to students from socially and economically disadvantaged sections of society, and to prepare them to meet the challenges of a rapidly changing world.

The steady academic growth of the College since its foundation, includes the introduction of Autonomy in 2003, and the Choice Based Credit System in 2006. The institution was recognized as a 'College with Potential for Excellence' in 2006 by the UGC. It is one of the beneficiary colleges of the central government's RUSA 2.0 scheme.

Currently, the college is the recipient of several projects sponsored by the U.S. State Department and the United Board for Christian Higher Education in Asia. The U.S. sponsored programmes include (i) the State Department's student exchange programme, SUSI (ii) Sponsoring students and selected members of the Dept. of English for certificate courses

Chief Patron  
**Dr. Sr. Leena Quadras**  
Correspondent

Patron  
**Dr. Sr. Kulrekha Mudartha**  
I/C Principal

### Organising Committee

**Dr. Ch. Krishnaveni**, IQAC Coordinator  
**Ms. G. Usha Kumari**, Vice-Principal

**Dr. Anila Rani. P**  
**Dr. Bharatha Jyohti. N**  
**Ms. Bhavani. P**  
**Dr. Kishore Babu. M**  
**Ms. Saikalyani. K**  
**Dr. Nagasundari. K**

## Resource Persons

### Ms. Smarna. S

Advocate  
Syntion Labs, Sanfranscico, USA  
Time: 9.30 - 10.15 am

### Dr. Armie

Senior Divisional Manager  
R.J. Reynolds, NC, USA  
Time: 10.15 - 11.00 am

### Dr. Uday Kiran Roopavath

Scientist  
National Institute of Pharmaceutical  
Education & Research  
Guwahati, India  
Time: 11.00 - 11.45 am

### Dr. Sowjanya. P

Assistant Professor  
Department of Medical Health  
Wake Forest University,  
North California, USA  
Time: 11.45 - 12.30 pm

### Mr. Prem Prashanth. N

Process R&D Scientist  
Dr. Reddy's Laboratories, Hyd  
Time: 12.30 - 1.15 pm



BHAVANI

Entry Fee : 200/-

### Registration Link

<https://forms.gle/dDPXVt1YvXs5TnTT6>

### Google Meet Link

<https://meet.google.com/vyb-misc-awt>

### WhatsApp Link

<https://chat.whatsapp.com/IYigooLPMIv4T5KgH91HKt>

E-mail ID: [biotec@marisstella.ac.in](mailto:biotec@marisstella.ac.in)

### e-certificate:

All registered participants will receive an e-certificate of participation after submitting their feedback link will be provide in whatsapp group.

Technical Support: Mr. K. Prasad & Mr. B. Srinivas Kalyan – System Admins



## **MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**

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### **DEPARTMENT OF FOOD SCIENCE AND TECHNOLOGY**

#### **A Brief Report on webinar on Promoting IPR Culture in Higher Educational Institutes.**

A One-day international webinar on Promoting IPR Culture in Higher Educational Institutes.

was organized by Departments of Food Science & Technology and Biotechnology in association with IPR CELL & IQAC. On 9.02. 2024, Friday in Hybrid mode

#### **Objectives:**

- To provide participants with a clear understanding of what Intellectual Property Rights (IPR) are and the importance of protecting intangible creations.
- To familiarize participants with the various types of IPR, including patents, copyrights, trademarks, and trade secrets, and how they differ from each other.
- To emphasize how IPR contribute to fostering innovation, creativity, and economic development by incentivizing creators and businesses to invest in new ideas.
- Provide Insights into Global IPR Trends and Challenges.

At the end of the workshop, participants would be able to:

- Participants will gain a comprehensive understanding of IPR and the legal protections available for intellectual creations.
- Familiarity with IPR Types and Their Applications.
- Improved Understanding of IPR Enforcement Mechanisms.

The resource persons were

Dr. Peterson Senior Scientist Syntion Labs, Santranscica, USA.

Dr. Kiran. D Solution Architect California, USA.

Dr. Armie Senior Divisional Manager R.J. Reynolds, NC, USA

Dr. Sowjanya. P Assistant Professor Department of Medical Health Wake Forest University, North California, USA.

Mr. Prem Prashanth. N Process R&D Scientist Dr. Reddy's Laboratories, Hyderabad.

The resource persons and participants were welcomed by the College I/c Principal, Dr.Sr.Kulrekha Mudartha, followed by a brief overview of the workshop by the Head of the Department, Ms.P.Bhavani.

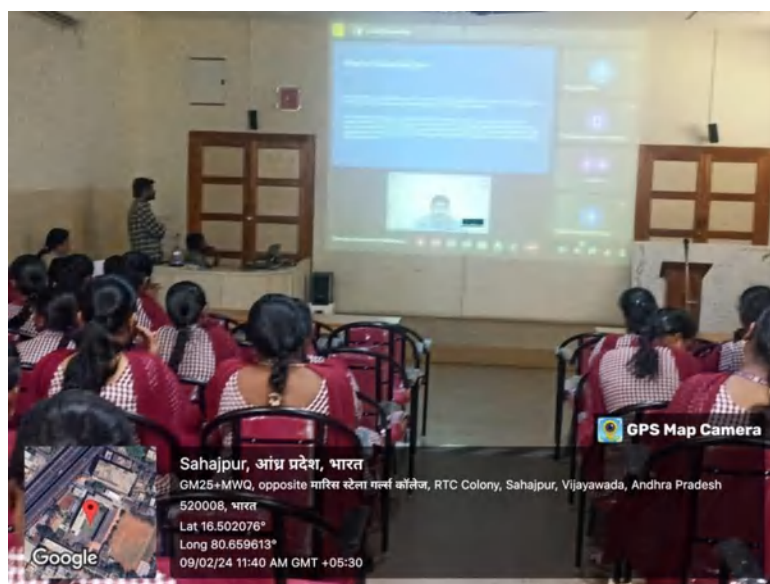


Introduction by Ms. P.Bhavani to the , Resource Person on 9.02. 2024

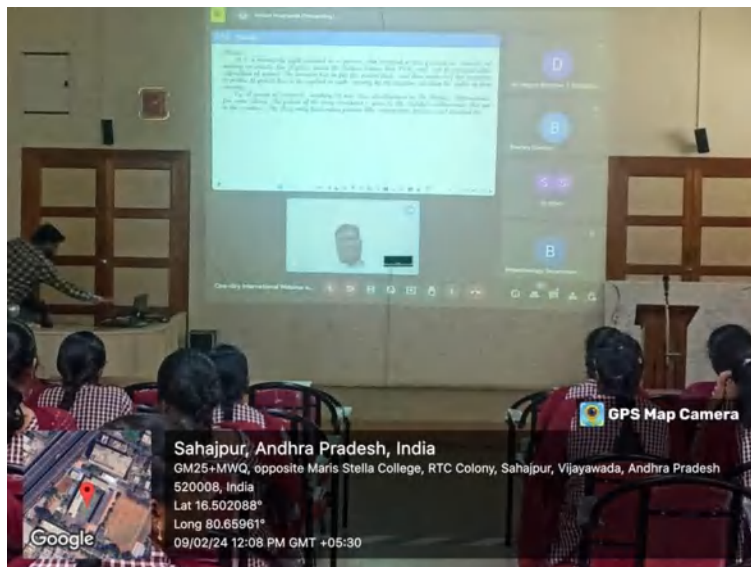




The session began with Dr. Kiran. D spoke about many universities and research institutions undertake high-level research across diverse fields such as technology, medicine, and the arts. IPR provides an incentive for researchers to push boundaries and share their discoveries. Protection under IPR ensures that ground-breaking research can be recognized, patented, or copyrighted, which facilitates funding and partnerships for further development.



Dr. Armie discussed about Universities with strong IPR policies can build partnerships with industries more effectively. When institutions have clear procedures for handling intellectual property, companies are more likely to collaborate on research projects, knowing that there are well-defined protections for any new inventions or findings. This creates a mutually beneficial ecosystem between academia and industry.



Mr. Prem Prashanth Spoke about The commercialization of intellectual property generated in universities can have a significant impact on economic growth. Patents, trademarks, and copyrights stemming from academic work can be licensed or sold to businesses, leading to the creation of new products, services, and even entire industries. This contributes directly to the economic development of the region or country.





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## IPR CELL & IQAC IN ASSOCIATION WITH PG DEPARTMENT OF BUSINESS ADMINISTRATION

In Collaboration with KL University Intellectual Property Facilitation Centre  
(KLIPFC), Vaddeswaram, Guntur (Dist)

## ORGANIZING A ONE DAY NATIONAL SEMINAR ON Unleashing the Power of Intellectual Property in the Digital Era

20th FEBRUARY 2024 Time: 10.00 a.m.- 4.00 p.m. Venue: AV Room

### Objectives

To Examine the protection mechanism of Intellectual Property Rights.  
To Preserve the legal validity of IP rights and prevent infringement.

### Outcomes

Understand the philosophical justification for IPR and protective mechanism.  
Explore the protection of Trademarks, Copyrights and Designs.

### Program Schedule

Inauguration	10.00 a.m. – 11.00 a.m
Prayer song	
Theme of the seminar	Dr. K. Naga Sundari
Welcome address by the I/C Principal	Dr. Sr. Kulrekha Mudartha
Wishes by the Correspondent	Dr. Sr. Leena Quadras

Short Break 11.00-11.15 a.m.



Session -1 11.15 a.m-1.00 p.m.  
Introduction to Intellectual Property  
**Prof. K. Raghava Rao,**  
Director, Innovation, Patent Facilitation&Business Incubator-MSME

Lunch Break 1.00 -2.00 p.m.



Session -2 2.00p.m.- 4.00 p.m.  
Identifying Inventions and finding it's Anticipations  
**Mr. Ashok Doppalapudi**  
CEO of IP Bank, Director of IP Tribe, A Non Profit Organisation

### Advisory Committee

Dr. Sr. Leena Quadras, Correspondent  
Dr. Sr. Kulrekha Mudartha, Principal  
Dr. Ch. Krishnaveni, IQAC Coordinator

### Organizing Committee

Dr. K. Naga Sundari, Convenor  
Director& Head of the Department  
Dr. Ramana K  
Mrs. S. Manjula  
Dr. K. Naga Sumalatha  
Dr. B. Ravi Kumar  
Dr. N. Anupama

Vote of Thanks

**MARIS STELLA COLLEGE, (AUTONOMOUS)**  
**IPR CELL & IQAC IN ASSOCIATION WITH PG DEPARTMENT OF BUSINESS**  
**ADMINISTRATION**  
**In Collaboration with KL University Intellectual Property Facilitation Centre(KLIPFC),**  
**Vaddeswaram, Guntur (Dist)**  
**Report on One Day National Seminar on UNLEASHING THE POWER OF**  
**INTELLECTUAL PROPERTY IN THE DIGITAL ERA**  
**20 February 2024**

IPR CELL & IQAC IN Association with PG Department Of Business Administration In Collaboration With KL University Intellectual Property Facilitation Centre(KLIPFC), Vaddeswaram, Guntur (Dist) has organized a One Day National Seminar on Unleashing The Power Of Intellectual Property In The Digital Era. The resource persons were Prof. K. Raghava Rao, Director of Innovation, Patent Facilitation, and Business Incubator –MSME, KLIPFC, KL University; Mr. Ashok Doppalapudi, CEO of Bank and Director of IP Tribe, a non-profit organization, Hyderabad.

**The objectives of the Seminar are**

To examine the protection mechanism of Intellectual Property Rights.

To preserve the legal validity of IP rights and prevent infringement.

**The Expected outcomes are**

Understand the philosophical justification for IPR and protective mechanisms.

Explore the protection of Trademarks, Copyrights and Designs.

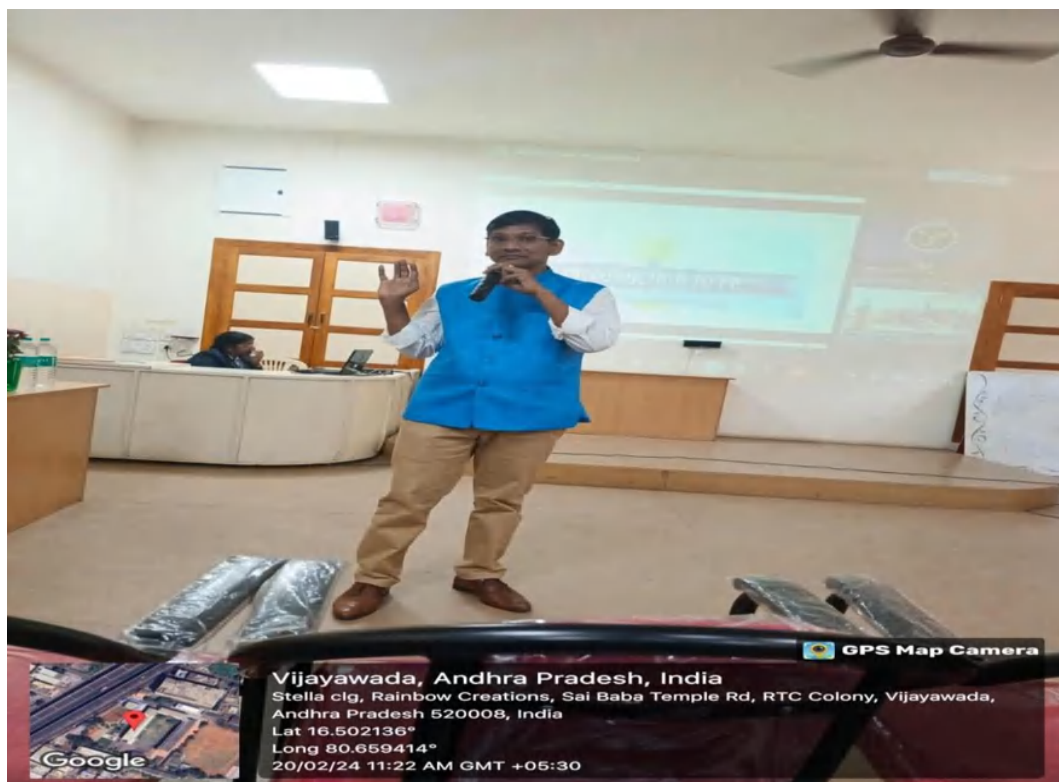
The program began with a prayer song by the students of II MBA. Dr. K.Naga Sundari, convenor, presented the theme of the seminar. Dr. Kulrekha Mudartha, Principal gave a welcome address followed by Dr. Sr. Leena Quadras, Correspondent wished the gathering.





***Dr. Sr. Kulrekha Mudartha, Principal Welcoming the Guests for the Seminar on 20-02-2024***

The resource person for the first session is Prof. K. Raghava Rao, Director of Innovation, Patent Facilitation, and Business Incubator –MSME. KLIPFC. He was introduced by Dr. N. Anupama, Faculty of MBA. He spoke on the introduction of Intellectual Property. He emphasized that the patents should be novel- new ideas, original and unusual. He also said that in the current scenario it is not only selling thoughts and making money but one must know how to protect their intellectual rights. He also said about various types of patents viz: Utility patent, Design patent, Plant patent. He also highlighted the process of working in a production system where it involves less processes, making work easy, taking less time and consuming less energy. He explained about the 7 steps of invention like 1. Identify the invention 2. Understand 3. Ideate 4. Design 5. Analyze 6. Execute 7. Evaluate.



***Prof. K. Raghava Rao, Director of Innovation, Patent Facilitation, and Business Incubator – MSME. KLIPFC speaking on intellectual property and types on 20-20-2024***

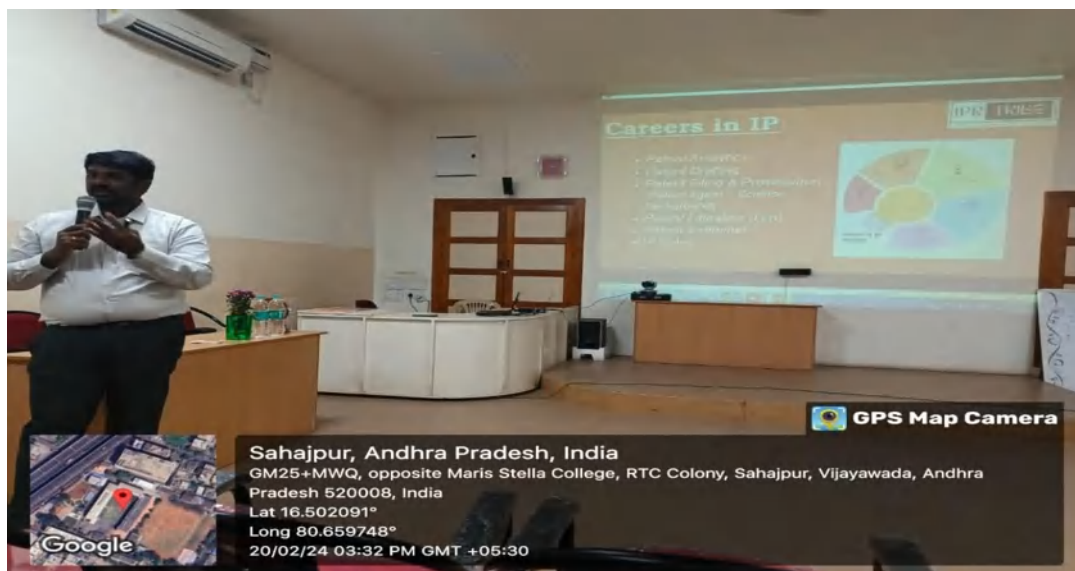


***MoU was exchanged between Maris Stella College and KLIPFC to collaborate on the activities related to Innovation and IPR 20-2-2024***

The resource person for the afternoon session was Mr. Ashok Doppalapudi, CEO of Bank and Director of IP Tribe, a non-profit organization, Hyderabad was introduced to the gathering by Dr. K. Naga Sumalatha, faculty of MBA. He said that inventions should be with technical advancements. He spoke about different types of trademarks as Generic, Descriptive, Suggestive, Arbitrary and Fanciful trademarks and Characteristics of Trademark. He also said that Copy Rights are to Protect expression of ideas. He also emphasized a lot of career opportunities in IPR such as Patent Analytics Patent Drafting Patent filing & prosecution Patent Litigation Patent examiner and as IP Sales. He gave interesting examples of Geographical Indication tag and quoted that Kondapalli Toys, Tirupathi Laddoo, Pedana Kalamkari are few which got GI Tags from the Government. He also said that the government is trying to mark GI tags for each district that is specialized in the respective products.



***Mr. Ashok Doppalapudi, CEO of Bank and Director of IP Tribe, a non-profit organization, Hyderabad addressing the participants on Innovation and IPR on 20-02-2024***



***Mr. Ashok Doppalapudi, CEO of Bank and Director of IP Tribe, a non-profit organization, Hyderabad addressing the students on careers in IPR on 20-02-2024***

The Program ended with a formal vote of thanks proposed by Mrs. S. Manjula, Faculty of MBA. The seminar was also live streamed. 237 participated in the seminar of which 85 were students of II MBA and II B. Com and 152 were faculty from different parts of the state and India.



# **Research Methodology**



# MARIS STELLA COLLEGE

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## One-Day Workshop on Research Insights & Publication Organised by

Research & Ethics Committee in association with IQAC

Date : 22.02.2024 Time: 10.30 am Venue: AV Room

### Overview of the workshop

This one-day workshop aims to provide participants with essential insights and strategies for navigating the research process and increasing their chances of successful publication. Through interactive sessions and expert guidance, attendees will learn key principles in research design, literature review, manuscript preparation, and publication ethics.

### Objectives

- To equip participants with practical knowledge and skills to effectively conduct research, from conceptualization to publication.
- To understand the publication landscape and the criteria for selecting appropriate journals.

### Outcomes

By the end of the workshop, participants will be able to

- Achieve an improved understanding of research methodologies and publication strategies among participants.
- Enhance confidence and readiness to undertake research projects and submit manuscripts for publication in academic journals.

## RESOURCE PERSONS



FN Session : 10.30 am - 12.30 pm

**Dr. M. Srinivasa Narayana**

Professor, Dept. of Online Learning (CDOE)

KL University, KLEF, Vijayawada

Topic : Research Process



AN Session : 2.00 pm - 4.00 pm

**Dr. Chintala Balaji**

Professor, Financial Management and Marketing Management

Deputy HOD & Assistant Director, KL University, KLEF, Vijayawada

Topic : Publication Process

### Organizing Committee

**Dr. K. Naga Sundari**

**Dr. Ramana K**

**Mrs. S. Manjula**

**Dr. K. Naga Sumalatha - Organising Secretary**

**Dr. N. Anupama**

### Convenor

**Dr. Bommiseti Ravi Kumar**

Co-ordinator,  
Research & Ethics Committee

# **MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**

## **One-day Workshop on**

## **Research Insights and Publication**

**Organised by Research & Ethics Committee in association with IQAC**

### **A Brief Report**

One-day Workshop on ‘Research Insights and Publication’ was organised by Research & Ethics Committee in association with IQAC on 22.02.2024, Thursday. The objective of the workshop was to equip participants with practical knowledge and skills to effectively conduct research, from conceptualization to publication as well as to understand the publication landscape and the criteria for selecting appropriate journals.

The programme began with a prayer invoking God’s blessings followed by welcome address by Dr. Sr. Kulrekha Mudartha, Principal and Patron of the workshop. Her comprehensive opening remarks on many important aspects of Research were thought provoking.



**Welcome address by Dr. Sr. Kulrekha Mudartha – 22.02.2024**



In the next step the theme of the workshop on ‘Research Insights and Publication’ was presented by Prof. Dr. Bommiseti Ravi Kumar, Coordinator – Research & Ethics Committee and convenor of the workshop. His speech was to motivate the faculty about the importance of research in educational institutions. He encouraged them to work harder and be perseverant.



**Theme Presentation by Prof. Dr. Bommiseti Ravi Kumar – Convenor – 22.02.2024**

The 1st session was on ‘Publication Process’ by Prof. Department of On line learning (CDOE), KL University, KLEF, Vijayawada. He shared his expertise with regard to research process for the effective drafting of a research paper. His proficiency in talking about different steps of the subject was indeed highly appreciable. He touched upon desired qualities of a researcher, research goals, problem identification, ideating literature, research design, findings and



future direction for research work etc., for the effective drafting of a research report.

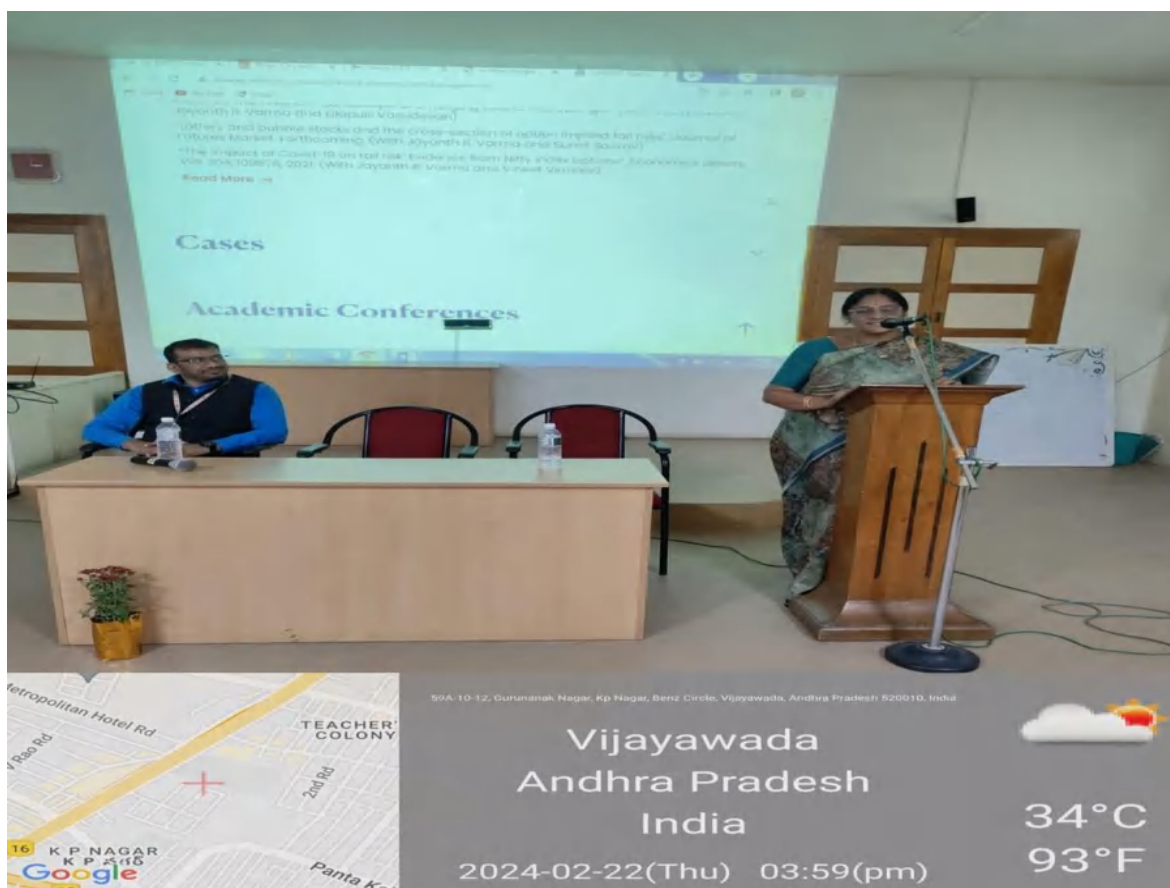


**Presentation by Prof. M.S. Narayana – 22.02.2024**

The 2nd presentation was on ‘Publication Process’ by Dr. Ch. Balaji, Deputy HOD & Assistant Director for CRT in Koneru Lakshmaiah Education Foundation, Andhra Pradesh, India. His views on the ‘publication’ have broadened horizons of participants. In his motivational speech he had covered all essential elements and the strategies for the improvement of fast publication process, identifying appropriate journals, how to cite the papers, how to upload the papers in academic platforms like Google Scholar, Publons, ResearchGate etc., Impact Factor etc. His description of how to publish the papers in standard journals was remarkable.



**Presentation by Dr. Ch. Balaji – 22.02.2024**



71 faculty members were registered for the workshop and at the end of the workshop participation certificates were issued to them. Later formal vote of thanks has been delivered by Mrs. S. Manjula.



## Call for Papers

Authors are invited to present their original and unpublished articles on the below areas, but are not limited to:

- Applications of soft computing
- Artificial Intelligence, Data Science and applications
- Big Data Analytics
- Blockchain Technologies
- Cloud Computing
- Computing Models and Applications
- Cyber Security
- Deep Learning
- Grid Computing
- Image Processing and Multimedia Signals
- Intelligent Information Systems
- Knowledge Engineering and Machine Learning
- Networks and Internet of Things (IOT)
- Social Network Mining and Web Mining
- Quantum Computing
- Thermo Dynamics
- Chemical neuroscience developments
- Materials in relation to Thermo Electricity

## Guidelines for Paper Submission

- An Abstract not exceeding 500 words and full length paper of 1500 - 2000 words.
- Abstract and full length paper must be in [IEEE format](#).
- Certificate will be issued to both the presenters and the participants.
- Presenters unable to attend in person due to location constraint can deliver their presentations online.
- Paper must be submitted to [conference.csc@marisstella.ac.in](mailto:conference.csc@marisstella.ac.in)

## Publication details

- Full length papers presented in the conference will be published in the conference proceedings with ISBN.
- The selected papers will be published in SCOUNPS indexed / UGC CARE LISTED Journals with additional charges.

## Important Dates

Abstract Submission : 27/01/2024

Acceptance Notification : 31/01/2024

Registration & Payment : 27/01/2024 to 05/02/2024

Full Length Paper Submission : 10/02/2024

Conference Dates : 27, 28 & 29 February 2024

**NOTE: ACCOMMODATION WILL BE PROVIDED WITH PRIOR REQUEST.**

## Chief Patron

**Rev. Dr. S. Leena Quadras**, Correspondent

## Patron

**Rev. Dr. Sr. Kulrekha Mudartha**, Principal(IC)

## Convenor

**Ms. E. Grace Lydia**

Head, Department of Computer Science

## Advisory Committee

**Dr. R. Kiran Kumar**

Associate Professor & Head

Department of Computer Science

Krishna University, Andhra Pradesh.

**Dr. J . Deepa**

Associate Professor of Computer Science and Engineering, Easwari Engineering College, Chennai.

**Dr. Subathra Devi R**

Assistant Professor & Head

Department of Computer Applications

Loganatha Narayanasamy Government College(A), Ponneri, Chennai.

**Dr. Syed Mohammad Nazimuddin**

Associate Professor

Asian University for Women, Bangladesh.

**Dr. M.D. Ananda Raj**

Assistant Professor of Computer Science

Loyola College, Chennai.

## Organizing Committee

**Dr. R. Vijaya Kumari**

Principal (I/C), Krishna University College of Engineering and Technology, Krishna University, Andhra Pradesh.

**Ms. E. Grace Lydia**

Head, Department of Computer Science

**Ms. P. Vidhyavathi**, Assistant Professor

**Ms. P. Malathi**, Assistant Professor

**Sr. Sujitha Sudarvizhi**, Assistant Professor



## MARIS STELLA COLLEGE

**(AUTONOMOUS)**

A College With Potential for Excellence

**NAAC ACCREDITED & ISO 9001 : 2015 CERTIFIED**

Vijayawada, Andhra Pradesh.

## NATIONAL CONFERENCE ON RECENT RESEARCH ADVANCEMENTS IN COMPUTATIONAL SCIENCES NCRRACS - 2024

**27, 28 & 29 Feb. - 2024**

Organized by

**The Department of Computer Science  
in Collaboration with Krishna University  
Vijayawada, Andhra Pradesh.**



## About The College

Maris Stella College was founded on 16th July 1962, the first women's college in Krishna District. True to its vision and mission, the College offers quality education and maintains consistently high academic standards in an effort to give all students an equal opportunity for learning and development through holistic education which is strongly grounded in values. It is the special mission of the College to reach out the students from socially and economically disadvantaged sections of society, and to prepare them to meet the challenges of a rapidly changing world.

The steady academic growth of the College since its foundation, includes the introduction of Autonomy in 2003, and the Choice Based Credit System in 2006. It is one of the beneficiary colleges of the central government's RUSA 2.0 scheme. Currently, the college is the recipient of a project sponsored by the U.S. State Department and the United Board.

## About The Department

The Department of Computer Science was established in the year 1990. The goal of the department is to prepare students to become thoughtful, productive members of the computing profession and community.

## About The Conference

NCRRACS 2024 aims at culminating the innovative ideas and findings of researchers in diverse domains in the field of Computational Sciences. It provides a platform to share and discuss the recent research findings in emerging areas of research in Computer Science and its related disciplines. This conference will feature a range of presentations on latest research activities as well as stimulating talks and keynote addresses that kindle the inquisitiveness of the researchers. This conference caters to the need of young researchers, professionals, and academia. This would serve as a forum to connect researchers and pave way for open deliberations and elevate their knowledge to new horizon.

## Objectives

- To share the latest findings, breakthroughs, and advancements in computational sciences with the broader academic and research community.
- To discuss and address current challenges and issues in the field, fostering a collective effort to find solutions and overcome obstacles.

## Outcomes

- Encourage the exploration of novel ideas, methodologies, and technologies that can contribute to the innovation and evolution of computational sciences.
- Provide a platform for researchers to present their work and potentially publish their findings in conference.

## Registration Fee

Students: Rs.200

Faculty/Research Scholars/Industrialists: Rs.1000

Only Participation: Rs.500

## Account Details

Account Name : Maris Stella College

Account Number : 2985101002597

Bank Name : Canara Bank

Branch : Bharati Nagar

IFSC Code : CNRB0002985

## Registration Link

<https://forms.gle/BGVL3Bb5R2rqGSQRA>

## For further details contact :

Ms. E. Grace Lydia 8142624864

Sr. Sujitha Sudarvizhi 9360939647



conference.csc@maristella.ac.in

Visit : <https://www.marisstella.ac.in/sciences/>

## KEYNOTE SPEAKERS



### DR. C. BALAKRISHNAN

Associate Professor  
Christ University, Yeswanthpur Campus,  
Bengaluru.



### DR. P. THIYAGARAJAN

Associate Professor & Head  
Department of Computer Science  
Dean Research  
Rajiv Gandhi National Institute of Youth  
Development (RGNIYD), Chennai.



### DR. M. D. ANANDRAJ

Coordinator & Assistant Professor  
Department of Computer Science  
Loyola College, Chennai.



### DR. R. VIJAYA KUMARI

Principal (I/C),  
Krishna University College of Engineering and  
Technology,  
Krishna University, Andhra Pradesh.



### DR. R. KIRAN KUMAR

Associate Professor & Head  
Department of Computer Science  
Krishna University, Andhra Pradesh.



### DR. P. JOSHUA REGINALD

Associate Professor, Department of ECE  
Vignans Foundation for Science Technology  
and Research Deemed to be University,  
Vadlamudi, Guntur.

**MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**2023-24**

**“National Conference on Recent Research Advancements in Computational Sciences”  
: Report**

**Dates:** 27-02-2024, 28-02-2024 & 29-02-2024

**Venue:** Conference Hall, BMP Block

**Organized by:** Department of Computer Science in collaboration with Krishna University

**Theme:** Recent Research Advancements in Computational Sciences

**Total number of registrations:** 150 (131 online registrations and 19 spot registrations)

**Objectives:**

- To provide a platform for researchers, scholars, and practitioners to share their recent findings, methodologies, and advancements in the field of computational sciences.
- To enable researchers to present their work through paper presentations, poster sessions, and panel discussions to disseminate their findings and receive feedback from peers.
- To encourage discussions and sessions that bridge the gap between theoretical advancements and practical applications in computational sciences, fostering innovation and real-world impact.
- To engage students and early-career researchers through special sessions, mentoring programs, and career development workshops to inspire and nurture future leaders in computational sciences.

**Brief Report:**

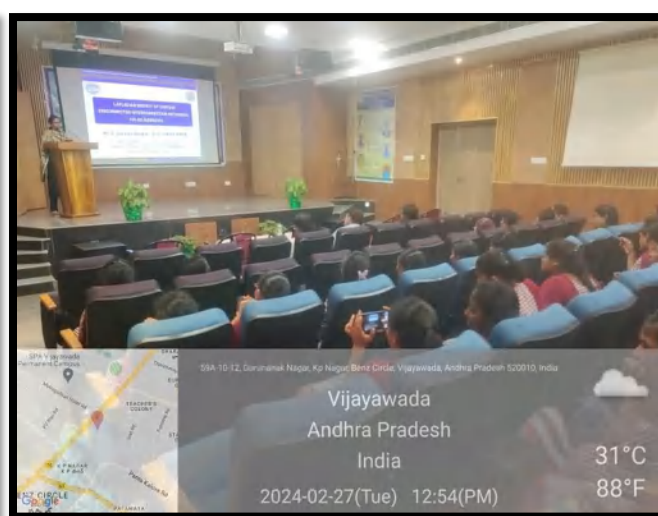
The Department of Computer Science executed a triumphant three-day conference spanning from February 27th to February 29th, 2024. The event commenced with an inaugural program featuring Prof. G. Gnana Mani, Vice Chancellor of Krishna University, as the esteemed chief guest. Ms. E. Grace Lydia, Head of the Department of Computer Science, delivered the opening remarks, followed by blessings from Dr. Sr. Kulrekha Mudhartha, Acting Principal. Dr. Sr. Leena Quadras, the correspondent, then shared her insightful message, followed by guest of honor messages from Dr. Thyagarajan, Assistant Professor, Central University of Tamil Nadu, Thiruvarur, Tamil Nadu, and Dr. C. Balakrishnan, Associate Professor at Christ University, Yeswanthpur Campus, Bengaluru. The keynote address was delivered by Prof. G. Gnana Mani, Vice Chancellor of Krishna University. At the culmination of the inaugural session, the conference proceedings book was unveiled just before the commencement of the felicitation ceremony. The event unfolded seamlessly, featuring a rich program of two technical sessions and two plenary sessions each day. Throughout the conference, six distinguished speakers delivered engaging presentations on their respective topics to an attentive audience comprising participants and students.



*Conference proceedings was unveiled at the time of inaugural on 27-02-2024 by the chief guest.*

#### **Day 1 FN (27-02-2024):**

Dr. Thyagarajan, Assistant Professor, Central University of Tamil Nadu, Thiruvavur, Tamil Nadu delivered an enlightening session on blockchain technology. His discourse delved into the significance of cryptocurrencies like bitcoins and illuminated the shortcomings of conventional banking systems. He elucidated the intricate algorithm underpinning the decision-making process within blockchain technology, and expounded upon its manifold advantages and diverse applications. To enhance comprehension, Dr. Thyagarajan supplemented his talk with instructive videos. Subsequently, he assumed the role of chairperson for the plenary session, overseeing the technical presentations with adeptness and expertise.



*Dr. Thyagarajan presented on Blockchain Technology and chaired the plenary session on 27-02-2024*



### ***Day 1 AN (27-02-2024):***

Dr. C. Balakrishnan, Associate Professor at Christ University, Yeswanthpur Campus, Bengaluru delivered an insightful session on "Exploring Cyber Security towards Intelligence." During his presentation, he elucidated the intricate landscape of intelligence infrastructure and Cyber Physical Systems, shedding light on advanced hardware such as robotics, biometric devices, driverless cars, Quantum DNA, smart home or city technologies, 3D printers, smart agriculture, precision agriculture, and smart healthcare. To enhance understanding, Dr. Balakrishnan showcased a video on Neuralink, offering a glimpse into cutting-edge developments. Furthermore, he provided detailed insights into smart energy management. Later, Dr. Balakrishnan assumed the role of chairperson for the plenary session, where he facilitated the technical presentations with aplomb and expertise.

### ***Day 2 FN (28-02-2024):***

Dr. Md. Ali Mirza, Assistant Professor, Department of Computer Science and Engineering, Krishna University delivered a session on 'Artificial Intelligence', where he delved into the history, significance, benefits, and applications of AI, supplementing his talk with informative videos before chairing the session.



*Dr. Md. Ali Mirza presented on Artificial Intelligence and chaired the plenary session on 28-02-2024*

### ***Day 2 AN (28-02-2024):***

Dr. M. D. Anandraj, Coordinator & Assistant Professor, Department of Computer Science, Loyola College, Chennai delivered a session on 'AI in Agriculture', where he elucidated the benefits of AI, including soil conversion, water monitoring, supply chain optimizations, crop and soil moisture management, accurate yield predictions, and malnutrition detection, detailing the algorithms for successful detection and classification, as well as crop maturity and automatic weeding, before subsequently chairing the plenary session on 28<sup>th</sup> afternoon session and 29<sup>th</sup> forenoon session.

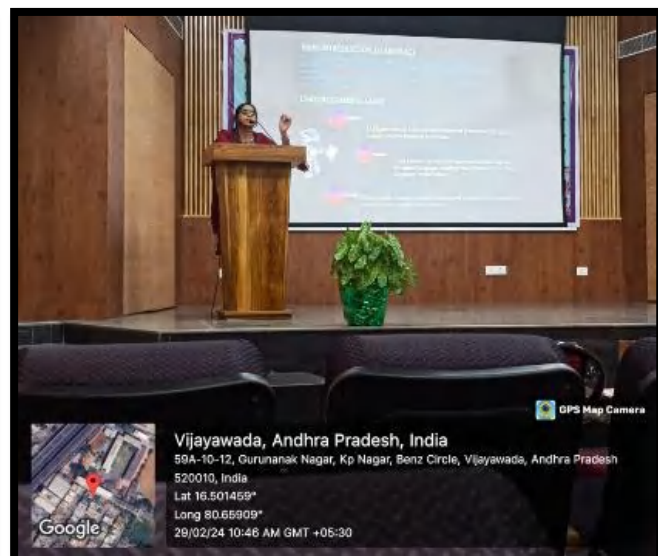




*Dr. MD. Anandh Raj presented on AI on Agriculture and chaired the plenary session on 28-02-2024*

### **Day 3 FN (29-02-2024):**

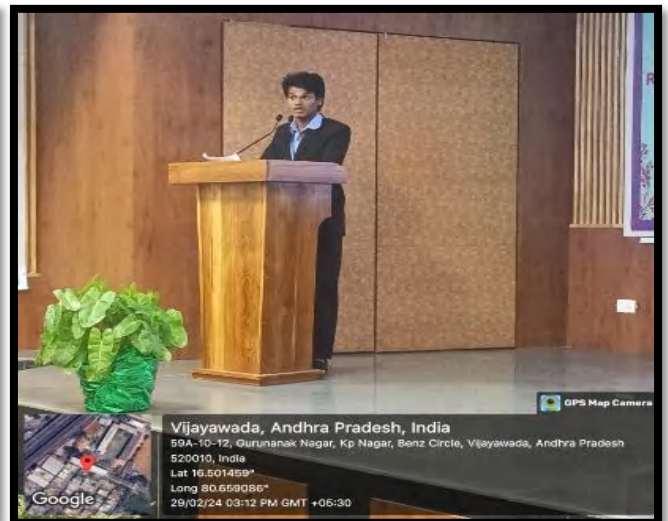
Dr. R. Vijaya Kumari, Principal (I/C), Krishna University College of Engineering and Technology, Krishna University delivered a session on 'AI, Data Science, and Applications', wherein she elaborated on the scope of AI, tracing its journey from inception, including the first expert system and neural network, while introducing key concepts and emphasizing the importance of data in the real world, elaborating on the 3V's of Big Data and employing videos for enhanced comprehension, before subsequently chairing the session.



*Dr. R. Vijaya Kumari presented on 'AI, Data Science, and Applications' and chaired the plenary session on 29-02-2024*

### *Day 3 AN (29-02-2024):*

Dr. P. Joshua Reginald, Associate Professor, Department of ECE, Vignans Foundation for Science Technology and Research Deemed to be University, Vadlamudi, Guntur delivered presented a session on 'IoT Applications and Protocols', elucidating on connectivity, microcontrollers, IoT protocols, and the significance of application layer, transportation layer, and network layer, while also delving into IoT devices.



*Dr. P. Joshua Reginald presented on 'IoT Applications and Protocols' and chaired the plenary session on 29-02-2024*

The program continued with the valedictory session, graced by Dr. Sr. Kulrekha Mudartha, Principal I/C, and Dr. Sr. Leena Quadras. Dr. R. Vijaya Kumari, Principal (I/C) of Krishna University College of Engineering and Technology, Krishna University, Dr. P. Joshua Reginald, Associate Professor from the Department of ECE at Vignans Foundation for Science Technology and Research Deemed to be University, Vadlamudi, and Dr. M. D. Anandraj, Coordinator & Assistant Professor from the Department of Computer Science at Loyola College, Chennai, were honored guests.







*Felicitation for the guests of honours in the valedictory session on 29-02-2024*

Each speaker on the dais shared their conference experiences and extended their best wishes to the students and participants. Ms. E. Grace Lydia, HoD of Computer Science, concluded with closing remarks and a vote of thanks. At last, the three-day national conference ended with National Anthem.

Brochure Link:

[https://drive.google.com/file/d/1QmodYK-YCq4itlg6z1KfXT8MVjmDV9IP/view?usp=drive\\_link](https://drive.google.com/file/d/1QmodYK-YCq4itlg6z1KfXT8MVjmDV9IP/view?usp=drive_link)

Registration form Link:

<https://forms.gle/rbuNXX3KYg24d9MZ6>

Whats app group invite link:

<https://chat.whatsapp.com/IIKQIE8zemMGCfeBivKWe>

Conference Invitation Link:

[https://drive.google.com/file/d/1Hf7EsDCboDY4tZPL7kR2sUXOWIVFZnON/view?usp=drive\\_link](https://drive.google.com/file/d/1Hf7EsDCboDY4tZPL7kR2sUXOWIVFZnON/view?usp=drive_link)

Valedictory Invitation Link:

[https://drive.google.com/file/d/1C5W3jLGMn3cvznxvCkk0QZcBBR4LNZIH/view?usp=drive\\_link](https://drive.google.com/file/d/1C5W3jLGMn3cvznxvCkk0QZcBBR4LNZIH/view?usp=drive_link)

Certificate of Appreciation for speakers:

[https://drive.google.com/drive/folders/1t7BSYxm47qdHS5Ki1XVww87cZvchrEXN?usp=drive\\_link](https://drive.google.com/drive/folders/1t7BSYxm47qdHS5Ki1XVww87cZvchrEXN?usp=drive_link)

Participation certificates:

[https://drive.google.com/drive/folders/1PHPNwRlgD48i91OjGqiHqL-SSqym\\_Mq2?usp=drive\\_link](https://drive.google.com/drive/folders/1PHPNwRlgD48i91OjGqiHqL-SSqym_Mq2?usp=drive_link)

Presentation slots day wise:

[https://docs.google.com/document/d/1CCoWp8JAl457EYSKVhI4sNh1d\\_YaqJUy/edit?usp=drive\\_link&ouid=102146155394192121992&rtpof=true&sd=true](https://docs.google.com/document/d/1CCoWp8JAl457EYSKVhI4sNh1d_YaqJUy/edit?usp=drive_link&ouid=102146155394192121992&rtpof=true&sd=true)

Presentation files day wise:

[https://drive.google.com/drive/folders/1k81pDWhpvA16TXKAsJoMZp6X1uoixq6t?usp=drive\\_link](https://drive.google.com/drive/folders/1k81pDWhpvA16TXKAsJoMZp6X1uoixq6t?usp=drive_link)

Paper clippings:

[https://drive.google.com/drive/folders/1t2gA4fwlh71XsLbq7hLcaHbZ\\_O1JxGZ1?usp=drive\\_link](https://drive.google.com/drive/folders/1t2gA4fwlh71XsLbq7hLcaHbZ_O1JxGZ1?usp=drive_link)

Feedback links

[https://drive.google.com/drive/folders/1OQjoRbVyG2W\\_F8WlGr6PKFfzV8vM1QOH?usp=drive\\_link](https://drive.google.com/drive/folders/1OQjoRbVyG2W_F8WlGr6PKFfzV8vM1QOH?usp=drive_link)

Youtube links:

Day 1:

<https://youtube.com/live/8q-58ukV2k8?feature=share>

Day 2:

<https://www.youtube.com/watch?v=MYInOc9nh2o>

Day 3:

[https://youtube.com/live/NTQuvoY94\\_0?feature=share](https://youtube.com/live/NTQuvoY94_0?feature=share)





# MARIS STELLA COLLEGE

(Autonomous), Vijayawada-8, A.P

A College with Potential for Excellence

NAAC Accredited & ISO 9001:2015 Certified

## FDP: Three-day Online National Workshop on

### The AI Educator's Toolkit: Enhancing Learning & Advancing Research

Organized by the IQAC

Dates: 21, 22, 23 Nov. 2023

Time: 09.00 am - 4.00 pm

#### Overview of the workshop:

Artificial Intelligence (AI) is the study of concepts that allow computers to do tasks that appear intelligent to human users. AI systems easily adapt to each student's unique learning needs and can target instruction based on their strengths and shortcomings. AI helps teachers facilitate self-guided learning. This can improve student experiences and motivation and will eventually lead to better academic outcomes.

This workshop is designed to help educators personalize the learning experience for each student and enable teachers to adapt their instruction style to each student's needs, creating a more customized learning environment for students. This workshop aims to support educators in using AI tools for research techniques as well.

#### Objectives of the workshop:

- To make the participants aware of the AI Toolkit for innovative teaching-learning
- To provide students with a more personalized learning experience
- To incorporate AI into classroom for more impactful student activities

#### Outcomes of the workshop:

Upon attending the workshop, the participants will be able to

- Aware of more personalized and supervised education
- Use AI in teaching-learning in order to deliver customized support and instruction
- Enhance overall learning environment

#### About the College:

Maris Stella was founded on 16th July 1962, to become the first college for women in the region. True to its vision and mission, the College offers quality education and maintains consistently high academic standards in an effort to give all students an equal opportunity for learning and development through holistic education which is strongly grounded in values. It is the special mission of the College to reach out to students from socially and economically disadvantaged sections of society, and to prepare them to meet the challenges of a rapidly changing world.

The steady academic growth of the College since its foundation, includes the introduction of Autonomy in 2003, and the Choice Based Credit System in 2006. The institution was recognized as a 'College with Potential for Excellence' in 2006 by the UGC. It is one of the beneficiary colleges of the central government's RUSA 2.0 scheme.

Currently, the college is the recipient of several projects sponsored by the U.S. State Department and the United Board for Christian Higher Education in Asia. The U.S. sponsored programmes include (i) the State Department's student exchange programme, SUSI (ii) Sponsoring students and selected members of the Dept. of English for certificate courses offered by various American universities (iii) the English Access Microscholarship Programme which is extending scholarships to fifty students for two years.

## Resource Persons



**Dr. K. Thiyagu**  
Dept. of Education  
Central University of Kerala



**Dr. S. Rajakumar**  
Thiagarajar College of Preceptors  
Madurai



**Mr. Sai Satish**  
CEO, Indian Servers

## Schedule

Day 1  
21.11.2023  
Tuesday

### Dr. K. Thiyagu

Technical session I: 09.00 - 10.00 am

Topic: **Teaching Tomorrow: The Rise of AI in Education**

Technical session II: 10.00 - 11.00 am.

Topic: **AI Chatbot Magic: Making Sense of AI Conversations for Everyone**

Hands-on: 11.20 - 01.00 pm

### Dr. S. Rajakumar

Technical session III: 02.00 - 03.00 pm

Topic: **Navigating E-content Frontiers with AI**

Hands-on: 03.15 - 04.00 pm

### Dr. K. Thiyagu & Dr. Rajakumar

Technical session IV: 09.00 - 10.00 am

Topic: **SlideCraft AI: Mastering Presentations with Intelligent Tools**

Technical session V: 10.00 - 11am

Topic: **AI for Student Engagement: Gamification & Immersive Learning**

Hands-on: 11.20 - 01.00 pm

Technical session VI: 02.00 - 03.00 pm

Topic: **Navigating the Digital Classroom: A Teacher's Toolkit**

Hands-on: 03.15 - 04.00 pm

Day 2  
22.11.2023  
Wednesday

Day 3  
23.11.2023  
Thursday

### Dr. K. Thiyagu & Dr. Rajakumar

Technical session VII: 09.00 - 10.00 am

Topic: **AI Tools Transforming the Research Landscape**

Hands-on: 10.00 - 01.00 pm

### Mr. Sai Satish

CEO, Indian Servers

Technical session VIII: 02.00 - 03.00 pm

Topic: **Future Trends in AI Education**

Hands-on: 03.15 - 04.00 pm

## e-certificate

All registered participants will receive an e-certificate of participation after submitting their input.

Registration Fee: Rs. 300

Registration Link: <https://forms.gle/MexHY1Ljq4pUcu6y9>

Google Meet Link: <https://meet.google.com/ubg-brkm-zwa>

WhatsApp Link: <https://chat.whatsapp.com/KlrCTTowKorFFyEBimwLWB>

#### Payment Details:

Account No.: 2985101002597

IFSC: CNRB0002985

Account Name: Maris Stella College

Bank: Canara Bank

E-mail ID: [iqac@marisstella.ac.in](mailto:iqac@marisstella.ac.in)

Chief Patron

**Dr. Sr. Leena Quadras**  
Correspondent

Patron

**Dr. Sr. Kulrekha Mudartha**  
Principal

Convener

**Dr. C. Krishnaveni**  
IQAC Coordinator

## Technical Support

**Mr. K. Prasad**, System Admin.

**Mr. Y. Vinod**, System Admin.

# **MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**

## **FDP: Three-day Online National Workshop on**

### **The AI Educator's Toolkit: Enhancing Learning & Advancing Research**

#### **A Brief Report**

Three-day online National Workshop on 'The AI Educator's Toolkit: Enhancing Learning & Advancing Research' was organized by the IQAC from 21-23 Nov. 2023 to support educators in using AI tools for teaching-learning as well as research techniques. This workshop is designed to help educators incorporate AI into classroom for more impactful student activities and enable teachers to adapt their instruction style to each student's needs, creating a more customized learning environment for students.

The programme began with a prayer invoking God's blessings followed by a welcome address by Dr. Sr. Kulrekha Mudartha, Principal and Patron of the workshop. Dr. C. Krishnaveni, IQAC Coordinator introduced the resource persons: Dr. K. Thiyagu, of the Department of Education, Central University of Kerala, Dr. S. Rajakumar from Thiagarajar College of Preceptors, Madurai, and Mr. Sai Satish, CEO of Indian Servers to the participants who provided informative and incredible presentations on integration of artificial intelligence (AI) and education.

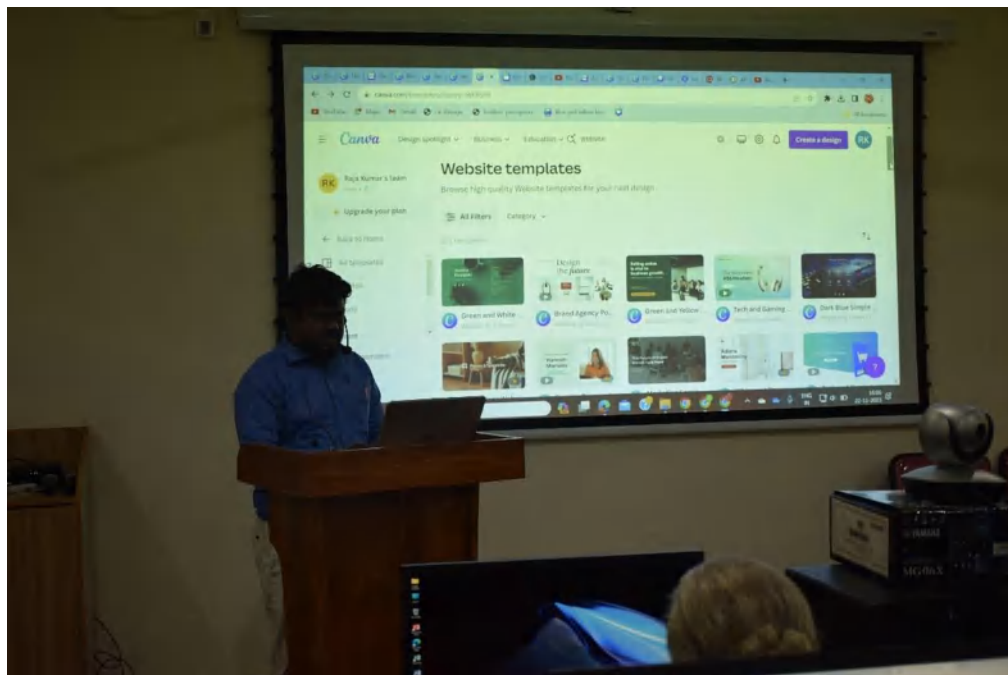
The sessions of the workshop conducted by Dr. Thiyagu focused on how AI is incorporated into education. These sessions helped participants familiarize with the practical applications of AI in education, emphasizing tools such as AutoDraw, Translation, TTS etc. that can be used to enhance the teaching-learning experience. His sessions made participants aware of the latest advancements in AI and also demonstrated how educators can seamlessly integrate technology into their teaching methodologies. The engaging AI-integrated pedagogy facilitated participants to acquire some practical acumens which will significantly enhance their classroom teaching.

Dr. Thiyagu also suggested a few AI research tools such as Digigogy, ProQuest, MIT Theses, Semantic Scholar for specific search of research articles, Plagiarism check tools such as Checker AI, GPT Zero and Zero GPT, Elicit and Consensus for summary of thesis, Connected Papers and Litmaps for bibliometric analysis, Zotero Mendeley for reference management, KOBO Toolbox for data collection, JASP and Jamovi for Statistics, Survey Monkey for evaluating sample size, Social Science Statistics for calculating data etc. to pursue research.



A Session by Dr. Thiyaagu, Resource Person on 21.11.2023

The SlideCraft AI: Mastering presentations, Gamification and Immersive Learning sessions conducted by Dr. Rajakumar were not only informative but also engaging, providing valuable insights into the application of AI in education. The hands-on training, he facilitated has equipped participants with skills which can be readily applied in their academic pursuits.



A Session by Dr. Rajakumar, Resource Person on 22.11.2023





Hands-on Experience of the participants, 21.11.2023

During hands-on sessions participants explored new features in MS Office 365 and Canva. They also tried tools such as AI ChatBot, AI Presentation, Mazic Slides, Pexels, Perplexity, Kreado, Bard AI, Adobe Firefly, Gamma for crafting slides, Chat D-ID, ChatTube to chat with YouTube videos, SlidesPilot, Lumen5 and animated tools such as Arloopa, Anatomy.ar, Animal 4D, Bird sounds, Semantris, Genmo AI etc. The tools such as Quizalize, classroomscreen.com and Diffit will be of great help to all educators.



Hands-on Experience of the participants, 22.11.2023



Mr. Sai Satish has demonstrated how ChatGPT can generate question paper with variety of questions and evaluate an answer script. He demonstrated a few AI tools such as Zygote Body and Nucleus Medical Media on YouTube for learning human anatomy, GeoGebra for Mathematics, Phet Interactive Simulations for Physics, Huggingface.co, MusicGen for giving music samples based on our prompts and RVC Voice Changer for real-time voice conversion.



A Session by Mr. Sai Satish, Resource Person, 23.11.2023

The interactive sessions after each presentation were useful and knowledge gained through hand-on is invaluable. 47 did register for the workshop from different states across the country and took an active part in the workshop and received a certificate of participation on giving their feedback.

Few faculty members shared their views and hands-on experience with the co-participants and the workshop ended by a formal vote of thanks by Mr. Sarat Chandra, Head, Department of Journalism.

# **Entrepreneurship Development Cell Activities**

# **MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**

## **PG DEPARTMENT OF BUSINESS ADMINISTRATION**

### **Awareness Program on MSME Competitive Lean Manufacturing, 13 March 2024**

The PG Department of Business Administration, in association with the Entrepreneurship Development Cell and in collaboration with MSME and the Confederation of Women Entrepreneurs (COWE), AP Chapter, organized a one-day workshop on Lean Manufacturing. The event began with a welcome address by the Correspondent, Dr. Sr. Leena Quadras. The resource persons, Mr. Phani Rao, Secretary, FAPSIA, and Mr. Kumar, Assistant Director of MSME-DFO, Government of India, Andhra Pradesh, were introduced by Dr. K. Naga Sundari, Director and Head of the MBA Department.

The workshop saw the participation of 50 attendees, including MBA students, B.Sc (AR&D) students, and 15 women entrepreneurs from Vijayawada. Mr. Rao elaborated that the scheme can be implemented at three levels: basic, intermediate, and advanced. MSME plans to raise awareness about the Lean scheme through nationwide programs.

The post-lunch session featured a presentation by the COWE General Secretary, who provided an overview of COWE's activities to empower women. She emphasized that COWE supports students interested in starting their own businesses by offering guidance and assistance until they are stable. She also encouraged institutions to become life members of COWE to avail various benefits. Additionally, she highlighted the CSR activities conducted by COWE.

This collaborative workshop not only informed participants about Lean Manufacturing but also fostered a supportive environment for budding entrepreneurs, particularly women, ensuring they have the resources and guidance needed to succeed.



***Mr. Phani Rao explaining about MSME Competitive Lean Scheme on 13-03-2024***

Mr. Phani Rao explained that the MSME Competitive Lean Scheme is an extensive initiative by the Ministry of Micro, Small, and Medium Enterprises to enhance the competitiveness of the MSME sector through the implementation of Lean Tools and Techniques. These methodologies are proven to improve the efficiency and global competitiveness of MSMEs. The scheme aims to promote awareness among MSMEs about enhancing their global competitiveness.



***Mrs. J. Aparna, Secretaty, Confederation of Women Entrepreneurs, AP Chapter, presenting various activities of COWE on 13-03-2024***



The post-lunch session featured a presentation by Mrs. J. Aparna, the COWE General Secretary, who provided an overview of COWE's activities to empower women. She emphasized that COWE supports students interested in starting their own businesses by offering guidance and assistance until they are stable. She also encouraged institutions to become life members of COWE to avail various benefits. Additionally, she highlighted the CSR activities conducted by COWE.

This collaborative workshop not only informed participants about Lean Manufacturing but also fostered a supportive environment for budding entrepreneurs, particularly women, ensuring they have the resources and guidance needed to succeed.

## **Skill Development Activities**



# MARIS STELLA COLLEGE (AUTONOMOUS)

A College with Potential for Excellence

NAAC Accredited & ISO 9001 : 2015 Certified

## INVITATION



A Two - Day Training Programme Organized by the

**DEPT OF COMMERCE & MANAGEMENT STUDIES**

in collaboration with IQAC & in association with

**NISM**

NATIONAL INSTITUTE OF  
SECURITIES MARKETS  
An Educational Initiative of SEBI

on

**"SECURITIES MARKET OPERATIONS"**

Resource Person

**Dr. Srinivas Rao Seethalapu., MBA, M.Com**



**10 AM - September 29th & 30th, 2023 in AV Room**



**MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**  
**A Report on Two Day Workshop on “Securities Market Orientation”**

**Date: 29.09.2023 & 30.09.2023**

**Venue: AV Room**

**Organizers: Department of Commerce & Management Studies**

**No.of participants: 60**

On September 29th and 30th, 2023, the Department of Commerce & Management Studies, in association with NISM and as part of the KONA KONA SIKHA CSR initiative by Kotak Securities, organized a comprehensive training programme on ‘Securities Markets Operations’ for final year B.Com and BBA students. This programme aimed to enhance students' understanding of the securities market and provide practical insights into various financial concepts.



***Dr. Srinivas Rao explaining the behavior of stock market - 29.09.2023***

Dr. Srinivasa Roa, Assistant Professor at TJPS Government College, Guntur, and a resource person from the National Institute of Securities Markets, led the training. With his extensive expertise in securities markets, Dr. Roa delivered valuable sessions on financial literacy, investment strategies, and the management of pocket money. His sessions also

covered the intricacies of investment opportunities in mutual funds and the necessary precautions for investing in the securities market.



***Faculty of Commerce Department giving memento as token of appreciation -***

***30.09.2023***

The training programme was well-received by the students, who gained a deeper understanding of financial skills and career opportunities in the securities sector. Dr. Roa's insights into investor grievances mechanisms further equipped students with knowledge essential for navigating the complexities of the financial world, thereby significantly contributing to their academic and professional growth.

## A Report on e-Filing of Income Tax & GST Returns Workshop

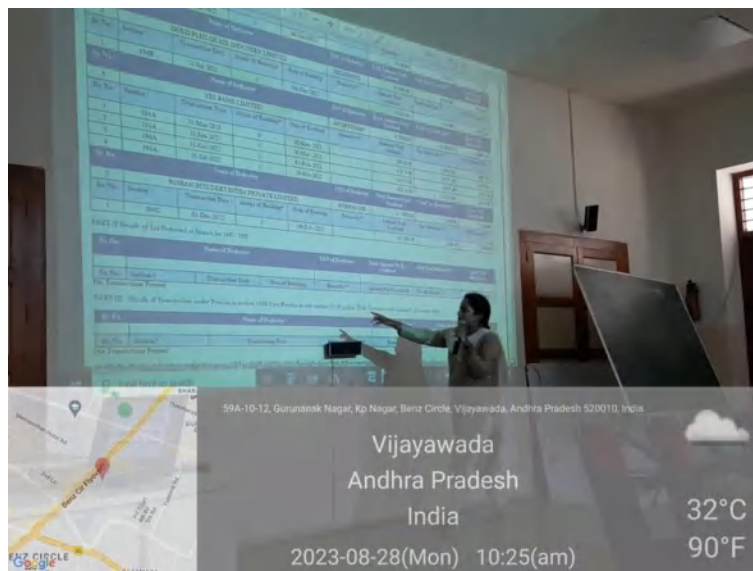
**Date:** 28<sup>th</sup> August, 2023

**Venue:** A. V. Room

**Resource Person:** Ms. M.Sravani M.Com., CA, Senior Accountant, MK Tated & Co

**No of Attendees:** 65 Students

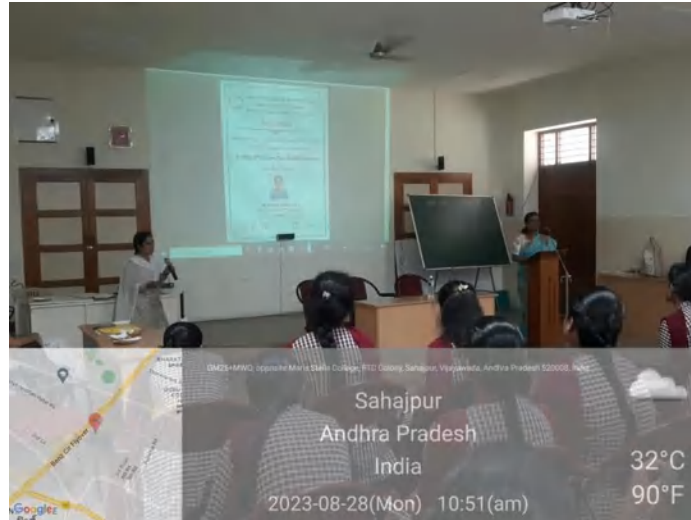
The Department of Commerce & Management Studies organized a one-day workshop on “e-Filing of Income Tax & GST Returns” as part of the hands-on experience in the course Income Tax. The program aimed to provide practical exposure for the Final Year B.Com students to enhance their practical knowledge.



Resource Person Explain the e-filling Process

The Resource Person, Ms. M.Sravani M.Com., CA, Senior Accountant, MK Tated & Co had illustrated filling of various returns under Income Tax and GST through Government e-Filing Portals. Students could relate their conceptual knowledge with practical exposure that was given in the session. Further the students had an opportunity to clarify their doubts. Total 65 Final year B.Com and BBA students had participated in the workshop.





Ms. Poojitha, HoD addressing the gathering

**MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8**

**DEPARTMENT OF PHYSICS**

**National Workshop on "Technologies and Insights Through Simple Experiments for the Prosperity of Society"**

**26.02.2024**

The Departments of Physics & Chemistry organized one-day workshop on "Technologies and Insights Through Simple Experiments for the Prosperity of Society" at its Audio Visual room on 26.02.2024. Prof. Y. S. Rao, PhD (ES-IIT Bombay), Vice-Principal, Dean R&D, Sardar Patel Institute of Technology (S.P.I.T) & Director, Go Green Technologies, Mumbai addressed the students on the topic 'Sensor Technologies: Healthcare, Wellness, and Environmental Applications' and Mr. Upadrashta Lakshmana Suri, Member, Indian Association of Physics Teachers, Panel Member, Regional Science Center, APCOST, Andhra Pradesh addressed on 'Scientific Insights and Experiments.'

The workshop focused on exploring simple yet impactful experiments to deepen understanding of how technology can contribute to the advancement and well-being of society. By familiarizing participants with the principles of various technologies and equipping them with practical skills, the workshop aimed to foster innovation and sustainable development across various fields.

Prof. Y.S. Rao highlighted the profound impact of nature's simple insights on technological advancement, leading to groundbreaking innovations across diverse fields. Despite encountering failures along the way, he emphasized the importance of perseverance. Drawing parallels with the experiences of actors Amitabh Bachchan and Sunny Deol, he illustrated how overcoming moments of despair can pave the path to success. Furthermore, Prof. Rao underscored the significance of patent rights in scientific innovations, sharing his own regretful experience of neglecting to patent his project 'Swift Doc,' which was recognized at an international competition. He elaborated on the pivotal role of sensors, especially in healthcare, while cautioning against the misuse of technological advancements such as drones, originally designed for emergency medical deliveries but now often employed for illicit purposes.

Mr. Upadrashta Lakshmana Suri emphasized the importance of fostering curiosity among students and encouraged them to test learned concepts through simple experiments. He noted that the pleasure or pressure experienced by students hinges on their attitude towards learning, asserting that attitude ultimately determines both aptitude and altitude of success in life. To instill a scientific temperament, he demonstrated basic physics principles—reflection,

refraction, total internal reflection, and Bernoulli's principles—using everyday objects readily available at home. Furthermore, he elucidated the workings of Polar Satellite launching vehicles and missile launching techniques through the use of various rocket models.

Through engaging sessions, interactive discussions, and practical demonstrations, participants gained knowledge. They were encouraged to draw inspiration from Mother Nature, utilizing its insights to innovate for advancement while prioritizing sustainability, biodiversity preservation, and the well-being of all. 85 students and ten faculty members from Physics, Chemistry, Statistics and Electronics participated in it. 25 students of Electronics and Technology from Sardar Patel Institute of Technology (S.P.I.T), Mumbai participated in the workshop in online mode.



**Prof. Y. S. Rao, PhD (ES-IIT Bombay), Vice-Principal, Dean R&D, Sardar Patel Institute of Technology (S.P.I.T) & Director, Go Green Technologies, Mumbai and Mr. Upadrashta Lakshmana Suri, Member, Indian Association of Physics Teachers, Panel Member, Regional Science Center, APCOST, Andhra Pradesh, addressing students in the workshop on "Technologies and Insights Through Simple Experiments for the Prosperity of Society" on 26.02.2024.**

# Students told to overcome despair to pave path to success

**Prof Y S Rao, Vice-Principal and Dean (R&D) of Sardar Patel Institute of Technology, underscores the significance of patent rights in scientific innovations**

MV SYAM SUNDAR  
VIJAYAWADA

PROF Y S Rao, Vice-Principal and Dean (R&D) of Sardar Patel Institute of Technology & Director of Mumbai-based Go Green Technologies, underscored the profound impact of nature's simple insights on technological advancement, leading to groundbreaking innovations across diverse fields.

He was addressing a one-day workshop on "Technologies and Insights through Simple Experiments for the Prosperity of Society" at Maris Stella College here on Monday. Speaking on 'Sensor Technologies: Healthcare, Wellness, and Environmental Applications', Prof YS Rao emphasised the importance of perseverance despite encountering failures along the way. Drawing parallels



with the experiences of actors Amitabh Bachchan and Sunny Deol, he illustrated how overcoming moments of despair can pave the path to success. Furthermore, Prof Rao underscored the significance of patent rights in scientific innovations, sharing his own regretful experience of neglecting to patent his project 'Swift Doc,' which was recognised at an international competition. He elaborated on the pivotal role of sensors, especially in healthcare, while cautioning against the misuse of technological advancements such as drones, originally designed for emergency medical deliveries but now often employed for illicit purposes.

Upadrashta Lakshmana Suri, member of Indian Association of Physics Teachers, spoke on 'Scientific Insights and Experiments' and stressed on the importance

of fostering curiosity among students and encouraged them to test learned concepts through simple experiments. He noted that the pleasure or pressure experienced by students hinges on their attitude towards learning, asserting that attitude ultimately determines both aptitude and altitude of success in life. To instill a scientific temperament, he demonstrated basic physics principles — reflection, refraction, total internal reflection, and Bernoulli's principles using everyday objects readily available at home. About 85 students and 10 faculty members from the departments of Physics, Chemistry, Statistics and Electronics participated in the workshop apart from virtual participation of 25 students of Electronics and Technology from Sardar Patel Institute of Technology (SPIT) from Mumbai.



# **MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**

## **Report**

### **A Workshop on the Principles and Functioning of Electric Generators**

21.09.2023

Generators are useful appliances that supply electrical power during a power cut and prevent disruption of daily activities. Generators are available in different electrical and physical configurations for use in different applications. In view of its significance, the department of Physics arranged a workshop on its premises on ‘The Principles and Functioning of Electric Generator’ on 21.09.2023 as an extension activity of the course on “Applications of Electricity and Electronics”.

The goal of the workshop was to provide participants a comprehensive understanding of electric generator’s functioning, the main components of a generator, the theoretical concepts, and practical aspects of electric generators and how a generator operates as a secondary source of electrical power in residential and industrial applications. The expected outcomes were to have a strong foundation on the theoretical principles and practical aspects of electric generators, awareness on safety measures and best practices when working with generators.

Mr. M. Sekar, Pump Engineering Enterprises, Branch Off: H.No.:6-2-180, Road No.1, Shobhana Colony, Balanagar, Hyderabad-36, was the resource person. He explained the theoretical concepts behind electric generators like fundamental principles of electromagnetism, generator components, the basic operating mechanisms, generator types, distinctions and applications of each, generator maintenance and troubleshooting, safety measures to ensure secure operation and maintenance of electric generators. He encouraged active participation, questions, and discussions, facilitating a dynamic learning environment where participants clarified doubts.

Thus, the Workshop proved to be an informative and practical session for all participants to use this knowledge in various applications. The instructor’s dedication, and enthusiasm made it a rewarding and educational experience for all the participants. Three faculty and 45 students participated in it.



Mr. M. Sekar, Pump Engineering Enterprises, Hyderabad-36 explaining ‘The functioning of Electric Generator’ on 21.09.2023 to III MPC & MPCS students as an extension activity of the course on “Applications of Electricity and Electronics”.



Mr. M. Sekar, Pump Engineering Enterprises, Hyderabad-36 explaining ‘the principles and parts of Electric Generator’ on 21.09.2023 to III MPC & MPCS students as an extension activity of the course on “Applications of Electricity and Electronics”.

**MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA – 8**  
**DEPARTMENT OF PHYSICS**

**Report of a two day Workshop on**  
**“Phosphors: Synthesis, Characterization, and Applications”**  
**11.08.2023 & 12.08.2023**

**Maris Stella organizes a two-day workshop**

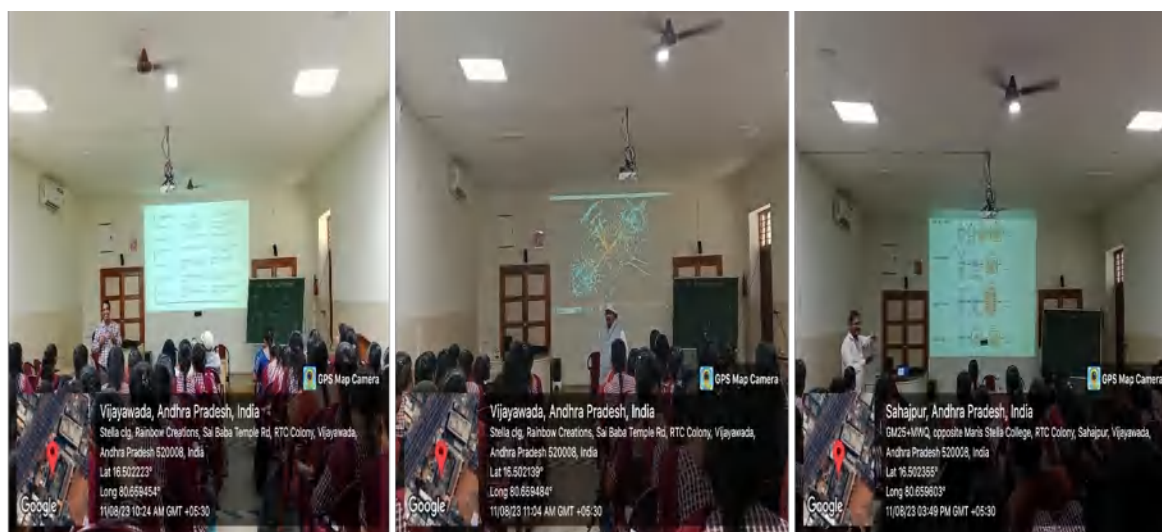
Nanoscience has the potential to revolutionize industries, improve quality of life, address global challenges, and continues to be a driving force behind innovation and scientific progress in the 21st century. In view of its significance, the Department of Physics, Maris Stella College, organized a two-day workshop on “Phosphors: Synthesis, Characterization, and Applications” on 11<sup>th</sup> August 2023 and a visit to Nanoscience and Physics Instrumentation Centre at K L Educational Foundation (KLEF) was arranged on 12.08.2023. The workshop envisioned to train students with the insights to the basics of nanomaterials, including their synthesis techniques, characterization methods, and diverse range of applications and motivate them to take up career as a material scientist. The aim was to educate, empower, and enable youth to gain knowledge, practical skills in the evolving Nanoscience field and helped students to become aware of opportunities in the dynamic field of nanotechnology and its applications in soft matter such as LCDs.

Dr.P.Pardhasaradhi, Professor and Associate Dean R&D(Publications), department of ECE, Koneru Lakshmaiah Education foundation presented a talk on ‘Liquid Crystals and their applications in Antenna Design’ and Prof. M. Ramakrishna Nanchara Rao, Department of Physics, Co-ordinator Advanced Analytical Laboratory (AAL), Andhra University, Visakhapatnam addressed the students on the topic ‘Advancement of electro - optical properties of liquid crystals with dispersed phosphor/metal nanocomposites’, and Dr.Giridhar Department of Nanotechnology, Acharya Nagarjuna University, Guntur, spoke on ‘Phosphors: Synthesis, Characterization, and applications to Solid State Lighting’. The resource persons highlighted the potential applications of Liquid crystals. 100 students with Physics, Chemistry and Electronics background and 8 faculty participated in the workshop.

On 12.08.2023, 63 students accompanied by Dr.G.Little Flower, Ms.P.Padmalaitha visited Koneru Lakshmaiah Education Foundation (KLEF) and visited Research instrumentation centre. Faculty from Department of Physics (KLEF) Dr.M.Venkateswaralu, Dr.Shanmugam, Dr. Mahamuda Sk, Dr.A.Venkateswara Rao, Dr.Sonali Biswas, and Ph.D scholars Ms.Sangeetha, Mr.Partheeban and Mr. Nagendra explained the functioning of

research lab instruments in Advanced Functional Materials research centre, instruments used for characterization of nanomaterials, phosphors etc. and demonstrated the synthesis of ZnO nanoparticles, thin film coating technique etc. The two-day workshop came to an end with valedictory function at KLEF. Administration members and HoDs of Physics, Chemistry and Mathematics motivated students towards higher learning and explained various career opportunities in the respective disciplines.

Thus, this workshop helped students to acquire knowledge in simple synthesis techniques, properties, characterization techniques of synthesized nanomaterials, optical and dielectric parameters of LC materials with dispersed nanosized phosphors/ metal nanoparticles that play crucial role for Liquid Crystal Display and in Antenna design applications and various other potential applications of nanomaterials and nanocomposites. They also became familiar with skills through hands-on lab sessions on synthesis of nanomaterials and phosphors.



Dr.P.Pardhasaradhi, Professor, KLEF, Prof. M. Ramakrishna Nanchara Rao, Co-ordinator Advanced Analytical Laboratory (AAL), Andhra University, and Dr.Giridhar, Acharya Nagarjuna University addressing the students at a Two-day workshop on “Phosphors: Synthesis, Characterization, and Applications” on 11<sup>th</sup> August 2023’ organized by Department of Physics, Maris Stella College, Vijayawada.





A visit to research instrumentation centre as part of a two-day workshop on “Phosphors: Synthesis, Characterization, and Applications” at Koneru Lakshmaiah Education Foundation (KLEF) on 12<sup>th</sup> August 2023’ organized by the Department of Physics, Maris Stella College, Vijayawada.



At the valedictory function of a two-day workshop on “Phosphors: Synthesis, Characterization, and Applications” at Koneru Lakshmaiah Education Foundation (KLEF) on 12<sup>th</sup> August 2023’ organized by the Department of Physics, Maris Stella College, Vijayawada.

**MARIS STELLA COLLEGE (AUTONOMOUS), VIJAYAWADA**  
**DEPARTMENT OF COMPUTER SCIENCE**  
**2023-24**

**Report: on “Python for Data Science: Data Enrichment with Pandas, NumPy and IPython” – A Two Day Workshop**

**Date:** 09-10-2023 & 10-10-2023

**Time:** 09:00 pm to 02:00 pm

**Venue:** Computer Lab, 3rd floor BMP Block

**Organized by:** Department of Computer Science.

**Total number of participants:** 34 students (III B.COM-COMP) and 4 Lecturers

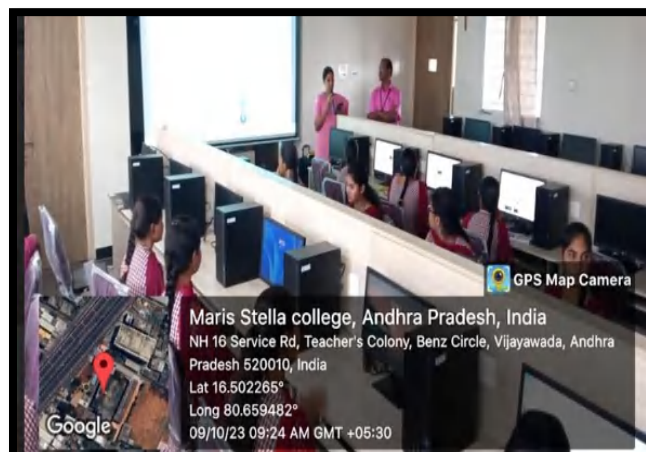
**Objectives:**

- To provide an overview on data enrichment and it's vital role in data science and analytics.
- To introduce various techniques for data cleaning, handling missing values and preparing data for analysis.

**Brief Report:**

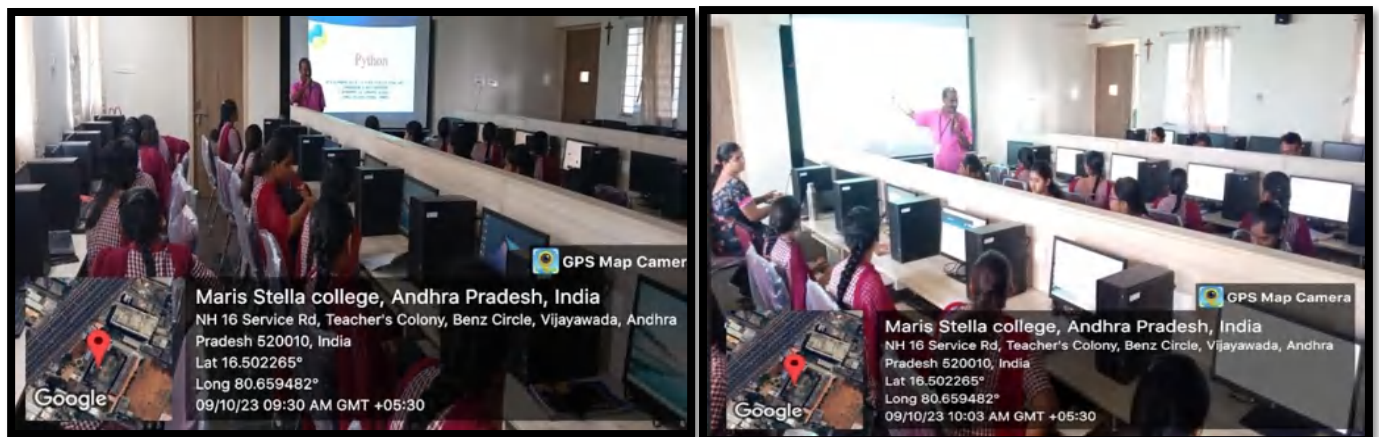
The Department of Computer Science successfully organized a two-day workshop on 09-10-2023 and 10-10-2023. The main objective for this two-day workshop is to learn more about the “Python for Data Science” and have hands on experience.

The workshop commenced with a soulful prayer song, setting a harmonious tone. Taking the reins as the guide, Dr. M. D. Anandharaj, a distinguished Professor from Loyola College, Chennai, Department of Computer Science. The introduction was gracefully delivered by Sr. Sujitha, Lecturer in the Department of Computer Science, adding a personal touch to the event. Together, they paved the way for an enriching and insightful workshop experience.



During the initial day of the workshop, Dr. M. D. Anandharaj conducted a comprehensive exploration of Python's foundational principles. Beginning with an insightful overview of Python's historical journey, he elucidated the distinctions between programming and scripting languages, providing a context for understanding Python's unique position. The scope of Python was discussed, unveiling its versatility and wide-ranging applications across various domains.

Practical aspects took center stage as Dr. Anandharaj guided the students through the installation process of Python IDLE, ensuring everyone was ready to embark on their coding journey. Delving into the core elements of Python, he covered an array, including variables, data types, operators, and diverse data structures like lists, tuples, sets, and dictionaries. The intricacies of file handling were also unravelled, offering students a holistic understanding of Python's capabilities.



The learning experience was heightened through hands-on activities, with Dr. Anandharaj actively involving students in coding exercises. This practical approach not only reinforced theoretical concepts but also allowed participants to witness the execution process firsthand, fostering a deeper comprehension of Python's functionality. Overall, the inaugural session set a solid foundation for the workshop, blending theoretical knowledge with practical application under the expert guidance of Dr. Anandharaj.

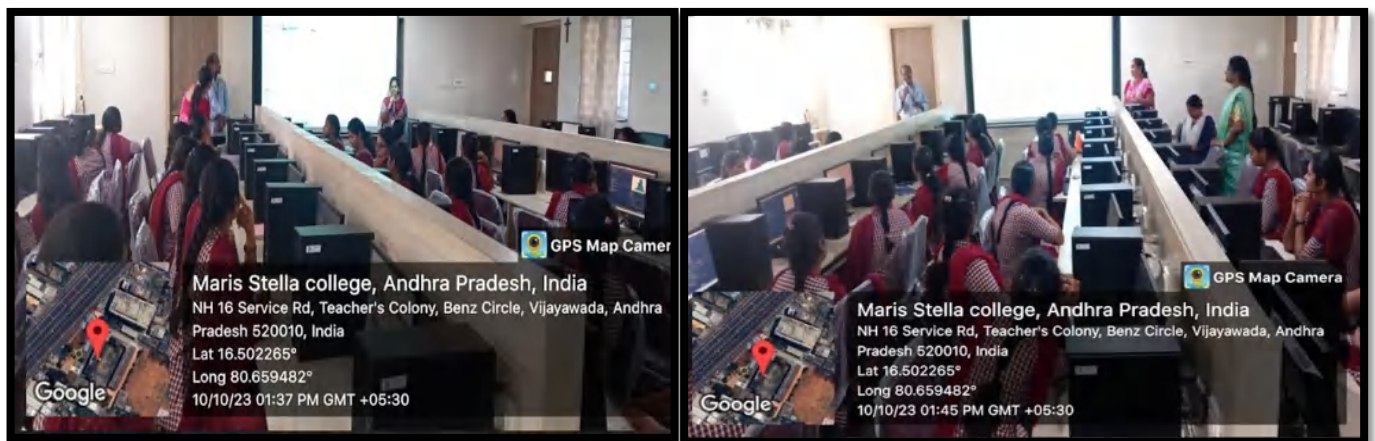
On the following day, Dr. Anandharaj delved into the pivotal realm of Data Science, underscoring its significance in conjunction with Python. The session unfolded with an exploration of essential tools such as Numpy and Pandas, laying the groundwork for effective data manipulation and analysis. The intricate art of data visualization was illuminated through Matplotlib, enhancing participants' skills in representing insights graphically.

The journey into the domain of Machine Learning commenced with Dr. Anandharaj demystifying key concepts like Classification, Regression, and the algorithms behind them, including K Nearest Neighbors,



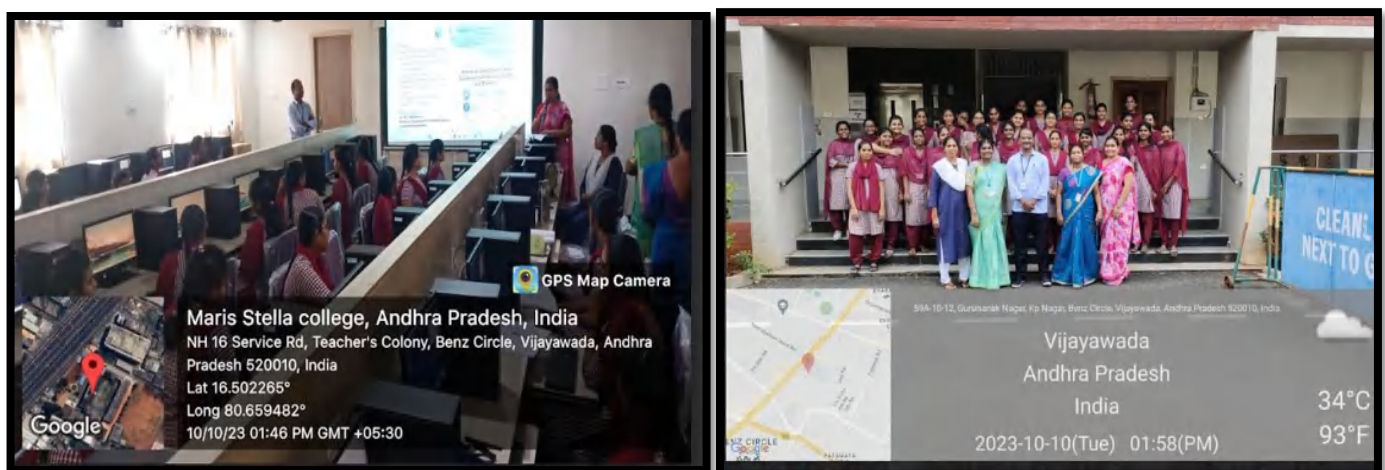
Naive Bayes, and K Means Clustering. The application of DBscan for clustering further enriched the discourse, providing a holistic view of clustering techniques.

The theoretical immersion seamlessly transitioned into a hands-on session, offering students a practical interface with the concepts discussed. This interactive component not only solidified theoretical knowledge but also empowered participants to engage directly with the tools and techniques introduced. Dr. Anandharaj's adept guidance ensured that the second day not only expanded the intellectual horizons of the participants but also equipped them with tangible skills through experiential learning.



As the workshop drew to a close, several students took the opportunity to express their perspectives on the enriching experience. Ms. E. Grace Lydia, the Head of the Computer Science Department, gracefully brought the proceedings to a conclusion with a heartfelt vote of thanks.

The student testimonials provided valuable insights into the impact of the workshop on their learning journey, highlighting key takeaways and moments of inspiration. Their diverse perspectives underscored the workshop's effectiveness in fostering a deeper understanding of the subject matter.





Ms. E. Grace Lydia's vote of thanks not only expressed gratitude to those who contributed to the workshop's success but also served as a reflection on the collective learning and collaborative spirit that defined the event. Her closing remarks encapsulated the sense of camaraderie and shared knowledge that had permeated the workshop, leaving both participants and organizers with a sense of accomplishment and appreciation for the collective efforts invested in the learning experience.

Brochure Link:

<https://drive.google.com/file/d/1uxWQICvP4koLQRTmFy6ccNvvdn4UO0dX/view?usp=sharing>

Feedback form Link:

<https://forms.gle/S1dZHAhzexwtWPzWA>



**MARIS STELLA COLLEGE (Autonomous),  
VIJAYAWADA.**

**A College with Potential Excellence  
NAAC Accredited & ISO 9001:2015 Certified**

The Department of Computer Science,  
Maris Stella College

is organizing a two day workshop on  
**“Python for Data Science: Data  
Enrichment with Pandas, NumPy  
and IPython “**



**9th & 10th October 2023**



**Computer Lab, 3rd floor  
BMP Block**

**OBJECTIVES:**

- To provide an overview on data enrichment and it's vital role in data science and analytics.
- To introduce various techniques for data cleaning, handling missing values and preparing data for analysis.

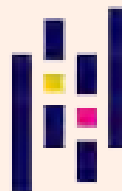
**OUTCOMES:**

- Gain a strong understanding of data enrichment techniques and will be proficient in applying these techniques to real-world datasets.
- Develop skills in exploring and understanding datasets, using Pandas and NumPy for data manipulation and analysis.
- Use IPython for interactive data exploration and analysis.

**Resource Person:**

**Dr. M. D. Anandaraj**

**Professor, Department of Computer Science  
Loyola College, Chennai.**



## TOPICS ADDRESSED.....

### Day 1:

- What is Python
- History of Python
- Differences between program and scripting language
- Scope of Python
- Installation of Python IDLE
- Features and Application of Python
- Variables,Datatypes,Operators
- Arrays (Lists,Tuple, Set,Dictionary),Files
- Hands on Practice

## ORGANIZING COMMITTEE

1. MS. E. GRACE LYDIA, CONVENER  
HEAD, DEPT. OF COMPUTER SCIENCE
2. MS. P.VIDHYAVATHI, ORGANISING SECRETARY  
DEPT. OF COMPUTER SCIENCE

### Day 2:

- Data science using python
- I Python
- Numpy
- Pandas
- Visualization with Matplotlib
- Machine learning
- Classification
- Regression
- K nearest neighbors
- Naive bayes
- K means clustering
- DBscan
- Hands on Practice

