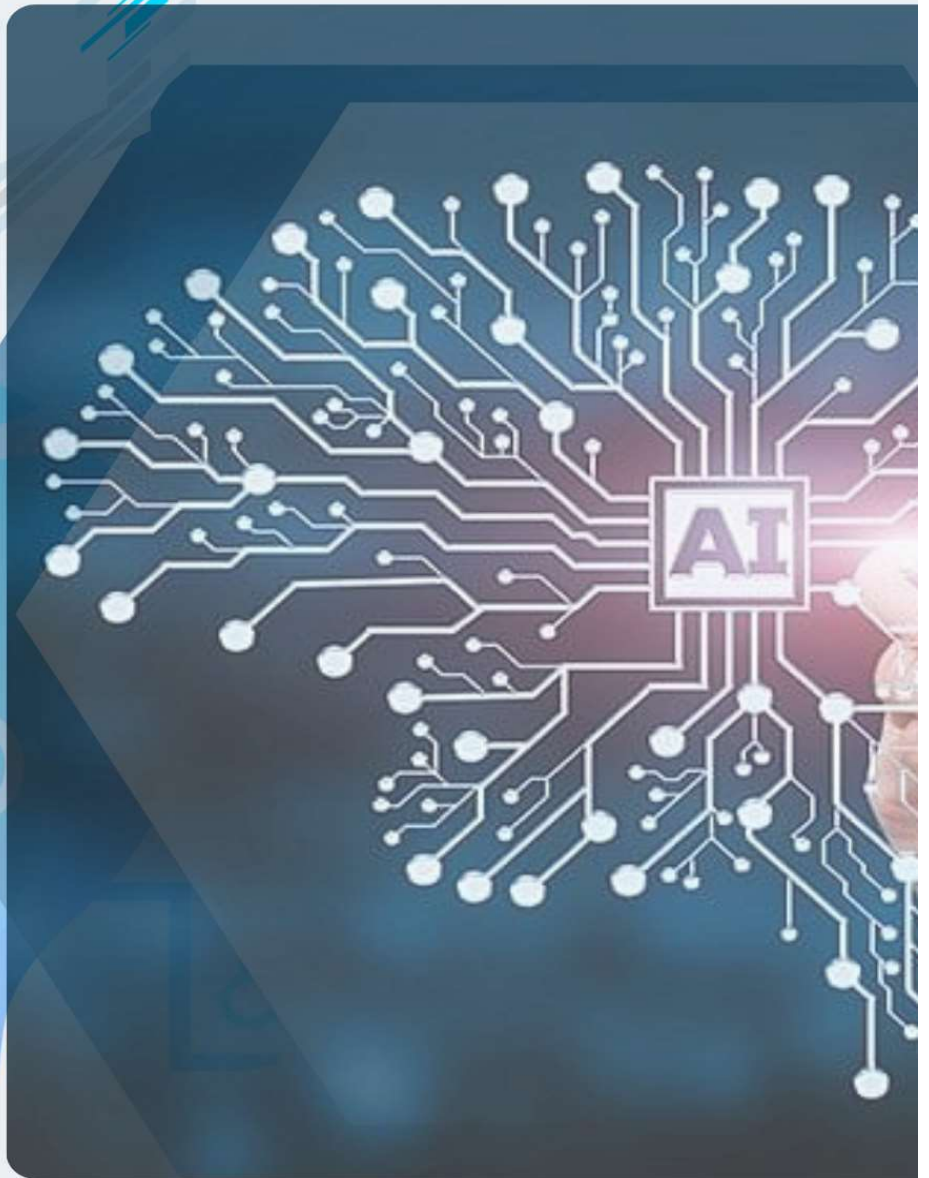# PARAMPARA 2023-24

## PROCEEDINGS

## ARTIFICIAL INTELLIGENCE PROSPECTS AND PITFALLS

AI
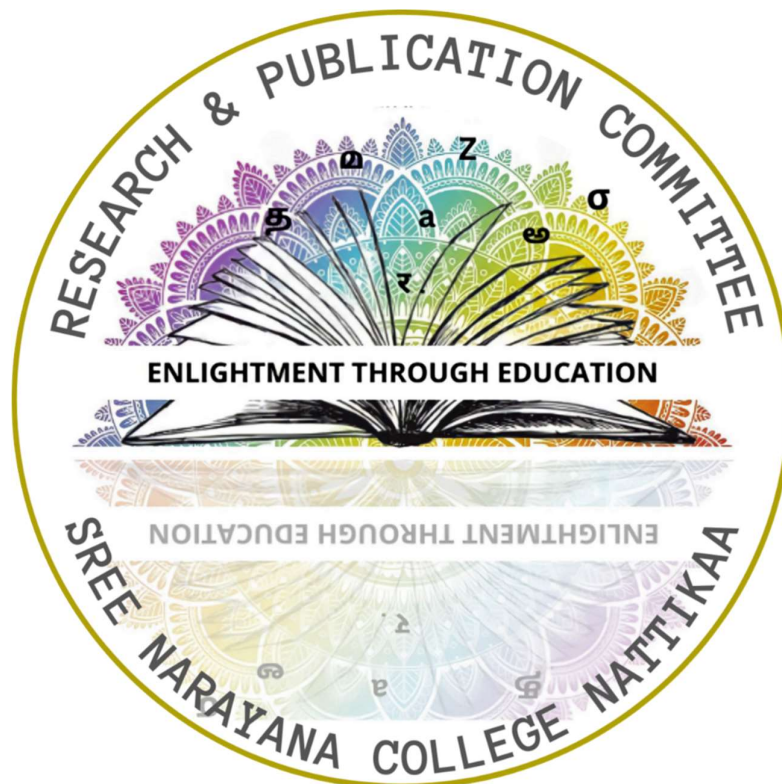
JOINTLY ORGANIZED BY RESEARCH & PUBLICATION COMMITTEE, IQAC AND PTA
UNDER THE AEGIS OF DBT STAR SCHEME

## SREE NARAYANA COLLEGE NATTIKA

## THRISSUR

# PARAMPARA

# 2023-24

RESEARCH & PUBLICATION COMMITTEE

ENLIGHTMENT THROUGH EDUCATION

SREE NARAYANA COLLEGE NATTIKAA

# PARAMPARA 2023-24

## THEME: "ARTIFICIAL INTELLIGENCE - PROSPECTS AND PITFALLS"

Each year, **Sree Narayana College, Nattika**, proudly organizes the interdisciplinary seminar series *"PARAMPARA,"* an initiative that exemplifies the institution's commitment to academic excellence and holistic education. The series serves as a vibrant platform where students and faculty converge to engage with some of the most esteemed scientists, academicians, and industry leaders from across diverse fields.

Sponsored generously by the college's **PTA** and **DBT STR Scheme**, *PARAMPARA* is not just an academic event but a celebration of ideas, collaboration, and innovation. The seminar series is meticulously curated to present attendees with cutting-edge insights and discussions on a wide array of topics, ranging from science and technology to humanities and social sciences. Through this, the college fosters a culture of learning that transcends traditional disciplinary boundaries.

A distinguishing feature of *PARAMPARA* is its dual focus on learning and participation. Undergraduate and postgraduate students are given a unique platform to present their research and ideas in front of an audience comprising peers, faculty, and invited experts. This experience allows them to refine their presentation skills, deepen their research acumen, and receive constructive feedback directly from leading professionals in their respective domains.

The benefits of this engagement are multifaceted:

- **Knowledge Enrichment**: Students and attendees gain exposure to the latest advancements and perspectives across disciplines, broadening their intellectual horizons.
- **Skill Development**: By preparing and presenting their work, students develop critical competencies such as public speaking, data analysis, and academic writing.
- **Mentorship Opportunities**: Interaction with industry leaders and scholars provides students with invaluable mentorship, helping them align their academic endeavors with real-world applications.

- **Collaborative Spirit**: The event fosters a sense of community, encouraging interdisciplinary dialogue and teamwork among participants.

At the culmination of the series, the most exceptional student presentations from each discipline are celebrated during the **Valedictory Function.** Winners are awarded **cash prizes and certificates,** recognizing their hard work and ingenuity. This gesture not only acknowledges their efforts but also inspires the academic community to strive for greater achievements.

By nurturing research awareness, fostering confidence, and cultivating leadership skills, *PARAMPARA* contributes significantly to the holistic development of its participants. The seminar series stands as a testament to Sree Narayana College, Nattika's vision of preparing students to excel both within their academic pursuits and in their future professional endeavors.

The annual multidisciplinary Seminar Series, "PARAMPARA" provides a common platform where eminent scientists, students and members of the Faculty come together to interact on a wide range of prowess, praxis and prospects in various disciplines.
Parampara provides an opportunity to develop critical thinking, research orientation and presentation skills among students. This knowledge exchange programme is envisioned as a Best Practice that can boost the educational atmosphere of the Institution.

The thrust area of Parampara 2023-24 is "ARTIFICIAL INTELLEGENCE - PROSPECTS AND PITFALLS"
It will be inaugurated by Dr. R Raveendran UGC Emeritus Professor, Special Officer Sree Narayana Trusts and Former Principal of Sree Narayana College, Sivagiri, Varkala

We cordially invite all academic enthusiasts to join us and take part in the deliberations.

Prof. SUBIN M P
PRINCIPAL

Dr. SANKARAN K K
Co ordinator IQAC

Sri RANAJITH PRABHAKARAN
PTA VICE PRESIDENT

Dr. SIJI NARENDRAN N K
Co ordinator Research & Publication Committee

Supported by PTA and ALUMNI of Sree Narayana College Nattika

VENUE: COLLEGE SEMINAR HALL
SREE NARAYANA COLLEGE NATTIKA
THRISSUR - 680566

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# SREE NARAYANA COLLEGE NATTIKA
Thrissur Kerala 680566
Govt Aided, UGC 2f, 12B category, DBT-STAR supported Institution, supported by RUSA
Affiliated to the university of Calicut

PARAMPARA 2023-24

Sri. VELLAPPALLY NATESAN
PATRON

Sri Unnikrishnan Thashnath
RDC President

Sri P K Prasannan
RDC Convenor

Prof. SUBIN M P
PRINCIPAL

Dr. R RAVEENDRAN
INAUGURATION

MULTIDISCIPLINARY SEMINAR SERIES ON

ARTIFICIAL INTELLIGENCE – PROSPECTS & PITFALLS

VENUE: SEMINAR HALL
TIME: 10.30 AM

Inauguration on 28 FEBRUARY 2024

Discussions   Presentations   Innovative ideas

Sree Narayana College, Nattika (estd. 1967) is a premier institution located in the coastal area of Thrissur District, Kerala. With the motto "Seek Freedom & Enlightenment through Education", it gives wings to the higher education dreams of the socially and economically underprivileged sections of the Society. The college runs 9 UG, 9 PG and 2 Research programmes.

ORGANIZED BY
RESEARCH AND PUBLICATION COMMITTEE, IQAC AND PTA

https://sncollegenattika.ac.in

# PARAMPARA 2023-24

## INVITED TALKS

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### INAGURATION

**10th  January 2023**

**Prof. Dr. SURESH C PILAI**

Atlantic Technological university, Ireland

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### MATHEMATICS

**23rd  January 2023**

*Coordinator: Mrs.Anila A*

**" The role of Discrete Logarithm Problem in Cryptography "**

**Dr.Saju M I**

**Assistant Professor&H.O.D. Of Mathematics, St. Thomas**

**College(Autonomous),Thrissur**

---

### CHEMISTRY

**24th  January 2023**

*Coordinator: Dr. Rajesh K M*

**"Materials Innovation for Next Generation Applications"**

**Dr Radhika T**

**Scientist, Center for Material for Electronic Technology (C-MET), Thrissur**

---

### COMMERCE

**25th January 2023. 10 A.M**

*Coordinator :Dr.Sreela Krishnan*

***"Research and Green Innovations for low impact development "***

Dr G S Sandhya Nair

Assistant Professor of Department of Commerce, Sree Vivekananda College, Kunnamkulam

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### ZOOLOGY

**30th January 2023**

*Coordinator:Dr.Jipsa J R*

**"Barcoding of fishes using Molecular Markers".**

**Dr.V.S Basheer,**

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**Principal Scientist of PMFGR Centre, ICAR-NBFGR CMRFI**

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**BOTANY**

**30th January 2023**

*Coordinator :Dr. Sheeja P.*

**"Innovations and challenges in the field of Botany"**

**Dr. Sreedharan K**

**Research officer at the Kerala state biodiversity board**

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**ECONOMICS**

**15th February 2023**

*Coordinator:Mrs. C. Sreelatha*

***"Gender neutrality"***

Dr. Remya R

Associate Professor & Head

Sri C Achyutha Menon Government College Thrissur 14

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**PHYSICS**

**20th February 2023**

*Coordinator Dr. Siji Narendran N K*

***"Spectrum of Development: Innovations and Challenges in Physics"***

**Dr. K M Devadas**

**(Assistant Professor, Sri Vyasa NSS College Wadakkanchery**

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**VALEDICTORY SESSION**

**MARCH 29, 2023**

**DR. SANDHYA SUKUMARAN**

**Principal Scientist**

**Central Marine Fisheries Research Institute**

# PARAMPARA 2023-24

In the academic year 2023-24, Research and Publication committee, Sree Narayana College Nattika organized PARAMPARA 2023-24 on a common theme "*Artificial Intelligence - Prospects and Pitfalls*" was inaugurated by Dr. R. Raveendran, UGC Emeritus Professor and Special Officer, Sree Narayana Trusts, on 28th February 2024.

The event commenced with a soulful prayer rendered by the Physics Choir, creating a serene and reflective ambiance. This musical invocation set a reverent tone for the day, symbolizing the unity of knowledge and spirituality.

The formal welcome address was delivered by Mr. Praveen V Prasad, Coordinator of the DBT STAR Program. In his address, Mr. Prasad extended a warm welcome to the dignitaries, guests, and participants, articulating the importance of "Parampara" as a platform for intellectual growth and cross-disciplinary interaction. He emphasized how such initiatives align with the institution's mission to nurture innovation and academic rigor.

Prof. Subin M P, Principal of Sree Narayana College, Nattika, delivered the Presidential Address. In his speech, Prof. Subin highlighted the pivotal role of multidisciplinary approaches in academia today. He pointed out that complex global challenges like climate change, artificial intelligence, and social inequality cannot be addressed effectively within the boundaries of a single discipline. He also commended the organizing committee for curating such a forward-thinking seminar series and reaffirmed the college's commitment to fostering a culture of learning and collaboration.

The ceremonial inauguration was performed by Dr. R. Raveendran, UGC Emeritus Professor and Special Officer, Sree Narayana Trusts, through the traditional lighting of the lamp. This symbolic act was accompanied by applause and was seen as a gesture of enlightenment and intellectual awakening. Dr. Raveendran remarked on the significance of such events in bridging the gap between disciplines and fostering a deeper understanding of the interconnectedness of knowledge.

The highlight of the event was the keynote address by Dr. R. Raveendran on the theme, *"Artificial Intelligence - Prospects and Pitfalls."* Dr. Raveendran provided an engaging and thought-provoking discussion on the rapid advancements in AI and its transformative impact across sectors. He explored the opportunities AI presents in fields like healthcare, education, and industry while addressing the ethical dilemmas and risks it poses, such as privacy concerns, bias in algorithms, and the potential for unemployment due to automation. His address was both an eye-opener and a call to action, urging students, researchers, and policymakers to approach AI development responsibly. The audience actively engaged, reflecting the relevance of the theme to the present era.

The ceremony was further enriched by felicitations from prominent dignitaries:

Dr. Jaya P S, Head of the Department of English, congratulated the organizing team for envisioning "Parampara" and stressed the importance of incorporating humanities into technological discourses. Sri. P K Prasannan, RDC President, spoke about the societal impact of multidisciplinary research and urged students to participate actively in the seminar series. Sri. Ranajith Prabhakaran, PTA President, applauded the college's efforts in creating such a platform and expressed confidence in its success. Miss Mannya B M, Chairperson of the College Union, shared her excitement about the opportunities "Parampara" presents to students and encouraged everyone to engage with enthusiasm. Each felicitation reflected a unique perspective, underlining the collaborative ethos of the seminar series.

The program concluded with a vote of thanks by Dr. Siji Narendrann K, Coordinator of the Research and Publication Committee. He expressed heartfelt gratitude to all the dignitaries, organizers, and attendees for their valuable contributions. Dr. Siji also acknowledged the dedicated efforts of the staff and student volunteers who ensured the smooth execution of the event. As a fitting conclusion, the audience rose for the National Anthem, symbolizing unity and shared purpose.

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The inaugural ceremony of "Parampara" was not only an academic event but also a celebration of knowledge and collaboration. The engaging keynote address and thought-provoking speeches set the tone for a seminar series poised to address pressing global challenges from multiple perspectives. The event highlighted the growing need for multidisciplinary approaches in education, research, and policymaking.

# Event Schedule

**28 FEBRUARY 2024**
**WEDNESDAY**

**10.30 AM – 1.00 PM**

| | | |
|---|---|---|
| PRAYER | : | PHYSICS CHOIR |
| WELCOME SPEECH | : | MR. PRAVEEN V PRASAD (CO 0RDINATOR DBT STAR) |
| PRESIDENTIAL ADDRESS | : | Prof. SUBIN M P PRINCIPAL (SREE NARAYANA COLLEGE NATTIKA) |

**INAUGURATION BY LIGHTING THE LAMP**
**Dr. R Raveendran (UGC Emeritus Professor, Special Officer Sree Narayana Trusts)**

| | | |
|---|---|---|
| KEYNOTE ADDRESS | : | DR. RAVEENDRAN (UGC Emeritus Professor, Special Officer Sree Narayana Trusts) |
| FELICITATION | : | DR. JAYA P S ( HOD ENGLISH ) |
| | : | Sri. P K PRASANNAN (RDC PRESIDENT) |
| | : | Sri. RANAJITH PRABHAKARAN ( PTA PRESIDENT ) |
| | : | MISS MANNYA B M (CHAIRPERSON COLLEGE UNION) |
| VOTE OF THANKS | : | DR. SIJI NARENDRAN N K COORDINATOR RESEARCH & PUBLICATION COMMITTEE) |

**NATIONAL ANTHEM**

## A glance through the inaugural session

## Department wise lectures
27<sup>rd</sup> Ferruary 2024 to 15 March 2024

Almost all the departments actively participated in the programme. All the invited talks and student's presentations were conducted during the period 27<sup>rd</sup> Ferruary 2024 to 15 March 2024

**DEPARTMENT OF ENGLISH**

**Artificial Intelligence for Language Acquisition**

On February 27, 2024, the Department of English under the aegis of IQAC & Research and Publication Committee, Sree Narayana College, Nattika hosted an enlightening program titled "Artificial Intelligence for Language Acquisition" The event aimed to explore the intersection of artificial intelligence and language learning, offering insights into innovative methodologies and technologies revolutionizing language acquisition.

The program featured dynamic presentations by the speakers Athira Joshy, Digital Marketing Manager, i4 Interface, and Arjun K. Nair, Development Director, i4 Interface. They delved into cutting-edge topics, shedding light on the transformative role of artificial intelligence in language acquisition.

Athira Joshy emphasized the significance of leveraging AI-driven platforms to personalize language learning experiences, catering to diverse learner needs. Athira's insights underscored the potential of AI in optimizing language acquisition strategies for enhanced efficacy and engagement. Arjun K. Nair, Development Director at i4 Interface, captivated the audience with his visionary outlook on integrating AI technologies in language learning. He elucidated groundbreaking innovations, such as natural language processing and machine learning algorithms, revolutionizing how languages are taught and learned. Arjun's presentation sparked intriguing discussions on the ethical implications and prospects of AI-powered language acquisition.

Dr. Jaya P. S, Principal in charge, Sree Narayana College, Nattika graced the occasion with her insightful presidential address, highlighting the importance of embracing technological advancements in education. She commended the efforts of the speakers in fostering a deeper understanding of AI's transformative potential in language acquisition, emphasizing the need for continuous innovation in pedagogical practices.

The "Artificial Intelligence for Language Acquisition" program at SN College Nattika served as a beacon of knowledge and innovation, illuminating pathways towards a technologically empowered future in language education. The event encapsulated the spirit of exploration,

collaboration, and transformation, inspiring stakeholders to embrace AI-driven solutions for enriching language learning experiences.

# PROGRAMME

**Prayer**

**Welcome:**       Dr. Jaya P. S
HoD & Associate Professor of English

**Presidential Address:**       Prof.( Dr.) Subin. M. P.
Principal
Sree Narayana College, Nattika

**Felicitation:**       Dr. Siji Narendran N. K.
Coordinator
Research and Publication Committee

**Felicitation:**       Dr. Sankaran K. K.
IQAC Coordinator

**Keynote address:**       Athira Joshy
Digital Marketing Manager

Arjun N. K. Nair
Development Director

**Vote of Thanks:**       Babitha B.
Assistant Professor of English

Triprayar, Kerala, India
C4F4+3HH, Nattika, Triprayar, Kerala 680566, India
Lat 10.422272°
Long 76.106525°
27/02/24 11:23 AM GMT +05:30



Triprayar, Kerala, India
C4F4+3HH, Nattika, Triprayar, Kerala 680566, India
Lat 10.422167°
Long 76.106573°
27/02/24 11:31 AM GMT +05:30

## DEPARTMENT OF MATHEMATICS

For the current academic year, department of Mathematics organized a talk on 'Gradient-based Optimization for Classification Problems in Machine Learning' by Dr. Linu Pinto, Assistant Professor of Mathematics at CUSAT, in connection with the Parampara theme 'Artificial Intelligence: Prospects and Pitfalls', on 29/02/2024 at 10 am in the New Seminar Hall.

The seminar aimed to explore the principles and applications of gradient-based optimization techniques in machine learning, particularly focusing on their relevance and efficacy in addressing classification challenges encountered in the banking sector.

Gradient Descent is known as one of the most commonly used optimization algorithms to train machine learning models by means of minimizing errors between actual and expected results. Further, gradient descent is also used to train Neural Networks.

In mathematical terminology, Optimization algorithm refers to the task of minimizing/maximizing an objective function $f(x)$ parameterized by x. Similarly, in machine learning, optimization is the task of minimizing the cost function parameterized by the model's parameters. The main objective of gradient descent is to minimize the convex function using iteration of parameter updates. Once these machine learning models are optimized, these models can be used as powerful tools for Artificial Intelligence and various computer science applications.

One of the most important machine learning tasks is classification. The Classification algorithm is a Supervised Learning technique that is used to identify the category of new observations based on training data. In Classification, a program learns from the given dataset or observations and then classifies new observations into a number of classes or groups. Such as, Yes or No, 0 or 1.

The seminar provided real-world examples illustrating the application of gradient-based optimization techniques in addressing classification problems encountered in the banking sector. These applications included:

- Credit Scoring: Utilizing machine learning models to assess the creditworthiness of applicants based on various features and historical data.

- Fraud Detection: Employing anomaly detection algorithms to identify fraudulent activities and transactions.
- Customer Segmentation: Segmenting customers based on their behavior, preferences, and transaction patterns to personalize services and marketing strategies.
- Loan Default Prediction: Predicting the likelihood of loan defaults based on borrower characteristics and economic indicators.

The seminar provided a comprehensive overview of gradient-based optimization methods and their relevance in addressing classification challenges in banking. Attendees gained valuable insights into the theoretical foundations, practical applications, and real-world implications of these techniques, equipping them with the knowledge and tools to leverage machine learning for improved decision-making and risk management in the banking industry.

Ms Arathy K D, Head of the department of Mathematics welcomed the gathering. Prof (Dr) Subin M P, Principal of the college presided over the function. Dr Sankaran K K, IQAC Coordinator and Ms Mannya, College union chairperson felicitated the function. Ms Ayana Babu K, Mathematics Association Secretary proposed the vote of thanks. 79 students attended the programme.

Brochure

# Programme Schedule

PRAYER : Alakananda V. J

WELCOME SPEECH : Smt. Arathy K. D
(HOD of Mathematics )

PRESIDENTIAL ADDRESS : Prof. (Dr.) Subin M. P
(Principal )

INAUGURATION AND
KEYNOTE ADDRESS : Dr.Linu Pinto
(Assistant Professor,
Dept. of Mathematics, CUSAT)

FELICITATIONS : Dr. Sankaran K. K
( IQAC Coordinator )

Mannya
(Chairperson )

VOTE OF THANKS : Ayana Babu K
( Association Secretary )

Welcome by Ms Arathy K D, HoD



Presidential address by Prof (Dr) Subin M P, Principal

Felicitation by Dr Sankaran K K, IQAC Coordinator



Keynote address by Dr Linu Pinto

**Presentations by students**

Based on the theme of Parampara 2024, a paper presentation competition was conducted on 06/03/2024 at 2.30 pm. The competition was judged by Dr Vivek B, Assistant Professor of Chemistry, Sree Narayana College, Nattika and Ms Silpa K S, Assistant Professor of Computer Science, Sree Narayana College, Nattika. The following are the participants of the competition.

| Sl No. | Name of the participant | Class | Topic of presentation |
|--------|------------------------|-------|----------------------|
| 1 | Ashigha T B | II MSc Mathematics | Robotic Process Automation |
| 2 | Athira K A | II MSc Mathematics | Robotics |
| 3 | Sanabeevi V S | II BSc Mathematics | Graph Neural Networks |
| 4 | Jayalakshmi Santhosh | II BSc Mathematics | Neural Language Processing |
| 5 | Farzana P N | II BSc Mathematics | Artificial Intelligence in Robotics |

First position - Ashigha T B

Second position - Farzana P N
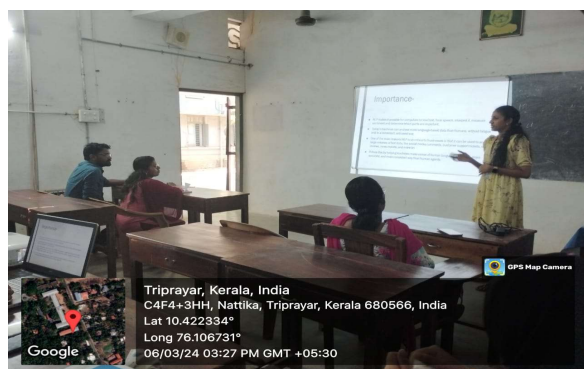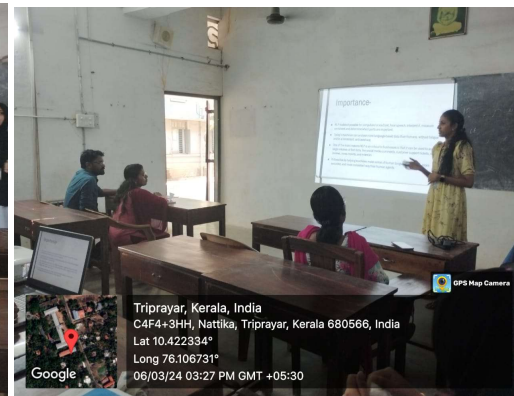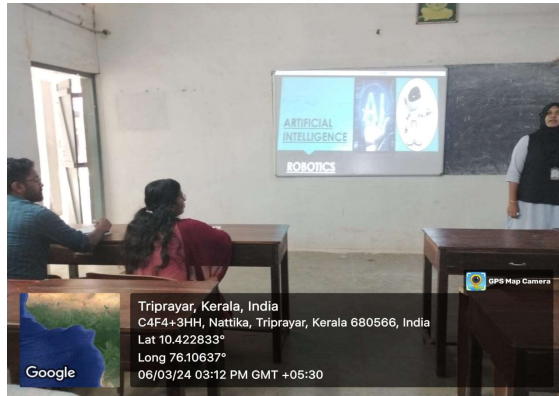
**Presentation Abstracts**

**ROBOTIC PROCESS AUTOMATION**
**ASHIGHA T B**
**II MSc Mathematics**

Abstract

Robotic Process Automation (RPA) is a transformative technology revolutionizing industries by automating repetitive tasks traditionally performed by humans. RPA involves deploying software robots or "bots" to mimic human interactions with digital systems, executing rule-based processes, and handling data. Its primary goal is to streamline operations, increase efficiency, and reduce human error. The use of RPA spans across various sectors, including finance, healthcare, manufacturing and telecommunications. Its applications range from automating data entry and invoice processing to customer service and report generation. The benefits of RPA include better customer service, enhanced productivity, improved accuracy, cost savings and scalability.

However, RPA comes with its set of advantages and disadvantages. While it accelerates processes and frees up human recourses, it can also lead to job displacement and security vulnerabilities if not implemented carefully. Top RPA vendors such as UiPath, Automation Anywhere, Blue Prism and Edge verve limited dominate the market, offering robust solutions tailored to diverse business needs. Looking ahead, the future of RPA promises further advancements, including AI integration, cognitive automation and increased interoperability with other technologies, paving the way for more sophisticated and intelligent automation solutions.

In my presentation on "Robotic Process Automation" first I briefly discuss about Robotics, moving on to the basic concepts such as what RPA is, evolution of RPA, why RPA is used. Then we discuss about the benefits of RPA such as better customer service, cost savings, improved efficiency, making employees more productive etc. Then we cover the applications of RPA, for example; customer service, accounting, financial service and healthcare. Then explain about some RPA vendors and finally discuss about the relevance and future of RPA.

**ROBOTICS**

**ATHIRA K A**

**II MSc Mathematics**

Abstract

Robotics is a multidisciplinary field that involves the design, construction, operation, and use of robots. A robot, in essence, is a programmable machine capable of carrying out tasks autonomously or semi-autonomously. Key aspects of robotics encompass mechanical engineering, electrical engineering, computer science, and artificial intelligence. In terms of locomotion, robots exhibit varied movement capabilities, from wheeled and legged systems to aerial drones, enabling them to navigate diverse environments. Computer vision plays a pivotal role in robotics, allowing machines to interpret visual information, recognize objects, and adapt to changing surroundings.

The advantages of robotics are extensive. Robots enhance efficiency in manufacturing, perform hazardous tasks in environments dangerous for humans, and contribute to medical advancements through precision surgeries. They also play crucial roles in exploration, such as space missions and deep-sea exploration, where human presence is limited. In conclusion, robotics is a dynamic field that continues to evolve, pushing the boundaries of technological capabilities. Its diverse applications, spanning from industrial automation to healthcare and exploration, underscore the profound impact robots have on improving our lives and expanding the horizons of what is achievable in various domains.

In my presentation on "Robotics" first I discuss about the basic concepts such as what robotics is, aspects of robotics, difference between robotic system and other AI programs etc. Then we discuss on the topic Robot Locomotion and different types of locomotion such as legged, wheeled, combination of legged and wheeled and skip/skid locomotion. Then briefly explained computer vision and the components of robotics and also some applications of robotics.

**Natural language processing**

**Jayalakshmi Santhosh**

**II BSc Mathematics**

Abstract

In the presentation we discussed on a very important application of artificial intelligence, NATURAL LANGUAGE PROCESSING. Natural language processing (NLP) is an area of computer science and artificial intelligence . It is  concerned with the interaction between computers and humans in natural language . Natural language processing (NLP) is the ability of a computer program to understand human language as it's spoken and written – referred to as natural language. It allows for more efficient communication between humans and computers. NLP helps computers to communicate with humans in their languages. It is very time efficient . NLP makes it possible for computers to read text, hear speech, interpret it. Also discussed advantages , importance, goals, components, applications and limitations of NLP. NLP makes it possible for computers to read text, hear speech, interpret it, measure sentiment and determine which parts are important.

Today's machines can analyse more language-based data than humans, without fatigue and in a consistent, unbiased way.It does this by helping machines make sense of human language in a faster, more accurate, and more consistent way than human agents.

# ARTIFICIAL INTELLIGENCE IN ROBOTICS
## ( Parampara presentation )

FARZANA P N
BSC MATHEMATICS

## ABSTRACT

The topic was about AI in robotics. Contents like what is AI? Early history of AI, history of AI, advantages and disadvantages of AI, future scopes of AI, what is robotics? AI in robotics, aspects of robotics, difference between AI program and robots, robot Locomotion and it's types, application of robots, and conclusion.

        Artificial intelligence is the science of making machines that can think like human beings. It can also do things that are considered smart. AI technology can process large amount of data, unlike humans. The goal of AI is to do things such as recognise patterns, make decisions and judge like humans.

Artificial/machine + intelligence = Artificial intelligence.

* It can solve problems.
* It can act rationally and
* It has the ability to act like humans.

       On the other hand, Robotics is a domain in AI which deals with the study of creating intelligent and efficient robots. Robotics is the branch of AI which is composed of electrical engineering, mechanical engineering and computer science for designing, construction and application of robots.

The mechanism that makes a robot capable of moving in its environment is called Robot Locomotion. Legged, wheeled, combination of legged and wheeled and tracked slip/skid are the types of robot Locomotion.

Many fields depends upon application of robots like in medical, industries, construction, automobile, hazardous places ( where human cannot survive ) and agriculture etc.....

Conclusion :  AI is the science that focuses on enabling machines to develop same intellectual capabilities as humans. And Robotics is the science of designing and building robots to improve innovation and automation. The integration of AI and robotics is transforming automated system across industries offering enhanced efficiency, precision and autonomy.

Thank you.

# GRAPH NEURAL NETWORK

SANABEEVI . V.S

BSC  MATHEMATICS

IN THIS PRESENTATION WE DIVE INTO THE FASCINATING WORLD OF GRAPH NEURAL NETWORKS . STARTING WITH THE BASICS OF GRAPH ,WE EXPLORE HOW GNN LEVERAGE THE POWER OF  INTERCONNECTED DATA TO UNLOCK HIDDEN PATTERNS . DELVING INTO THE TYPES OF GNN WE DEMYSTIFY THEIR WORKINGS PROVIDING INSIGHTS TO THEIR UNIQUE APPROACH TO INFORMATION PROCESSING.

HIGHLIGHTING REAL WORLD APPLICATION WE SHOW CASES HOW AWS  HARNESSES THE POTENTIAL OF GNN TO ENHANCE VARIOUS SERVICES. THE PRESENTATION CONCLUDES WITH A REFLECTION  ON THE IMPACT AND POTENTIAL FUTURE DEVELOPMENTS IN THE REALM OF GRAPH NEURAL NETWORKS , LEAVING US WITH A GLIMPSES INTO THE EXCITING POSSIBILITIES THESE NETWORKS BRINGS INTO THE TABLE.

**DEPARTMENT OF COMMERCE**

The annual seminar series "Parampara" of the Department of Commerce at Sree Narayana College Nattika was conducted on 4<sup>th</sup> march 2024, through online mode . The programme was conducted through Google Meet from 7 p.m. to 8.30 p m. The welcome speech was delivered by Dr. Ranjini R. Varma (Assistant Professor, Department of Commerce), followed by a presidential address by Dr. Subin M. P. (Principal, Sree Narayana College Nattika). The resource person for the event was Dr. Anand K., Assistant Professor of the Department of Commerce, Sree C. Achuthamenon Government College, Kuttanellure, Thrissur. After the formal address, the session commenced with the keynote address by Dr. Anand K. A., where he gave a wonderful lecture on the topic "Artificial Intelligence in the Banking Sector.

He points out the significance of AI in the banking sector. The key note speaker also elaborated on the problems faced by the banking sector while adopting artificial intelligence. The session was very informative. After the session, there was an interactive session with participants. Most of the students actively participated in the programme. The programme was attended by the faculties and students from within and outside the institution, as well as students of both graduate and postgraduate levels. The session ended with a vote of thanks by Krishnapriya ,B.com second year student .

Day  2 (14.3.2024)
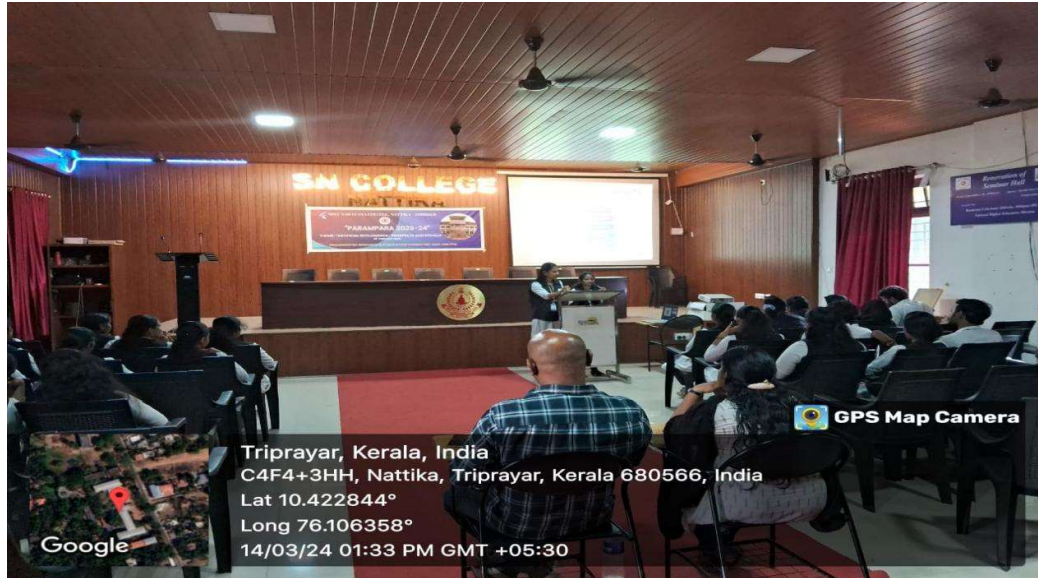


(photo : ppt competition by students )

           The second session of our paramapa series was conducted on 14.03.24 at 1.30 pm in the new seminar hall with the ppt competition, which was held among the students of the Commerce Department. The session commenced with the welcome speech by Vidya A., Assistant Professor, Department of Commerce (Programme coordinator). There were six teams for the competition: one team from second-year B.com., two teams from first-year M.com., and three teams from final year M.com. The theme of the day was „artificial intelligence prospects and pitfalls." Each and every participant contributed their best, and it was a very tight competition. Every team was given a time limit of 10 minutes for the seminar presentation and five minutes for the questioning session. The winners of the seminar competition were Salna N.A. and Arya Padoor Anil Kumar of M.com Final Year students, the second position was backed by Aneesha Anand and Umamaheswari T.B. of M.com Final Year; and the third position was for Anjana TD and Anurag P.S. of M.com First Year. The session ended with a vote of thanks by Neha,  M.com first-year student.

## DEPARTMENT OF CHEMISTRY

The seminar titled "A Retrospective on Lithium Batteries in the Memory of John Bannister Goodenough" was held on 08-03-2024. The seminar aimed to honor the contributions of the renowned scientist John Bannister Goodenough to the field of lithium batteries, as well as to provide insights into the advancements and prospects of lithium battery technology.

Objectives:

1. To Explore Future Prospects and Challenges:

2. To Foster Understanding of Lithium Battery Technology:

3. To Provide a Retrospective on Lithium Batteries:

4. To Encourage Interdisciplinary Collaboration:

5. To Honor John Bannister Goodenough:

Program Overview:

Dr. Rajesh K M, Assistant Professor of Chemistry, extended a warm welcome to all the participants, dignitaries, and guests. He highlighted the significance of the seminar and emphasized the importance of commemorating the achievements of John Bannister Goodenough.

Principal Dr. Subin Sir delivered the presidential address, wherein he underscored the pivotal role played by John Bannister Goodenough in revolutionizing the field of energy storage through his groundbreaking work on lithium batteries.

Dr. Vivek B,Assistant professor of Chemistry, introduced the esteemed resource person for the seminar, Dr. Dr. Muhammed Jaseer Adattil, highlighting his expertise and contributions to the field of lithium battery research.

Dr. Muhammed Jaseer, Principal in Charge of Government Women's College, Malappuram, delivered the keynote address. He provided valuable insights into the evolution of lithium

battery technology and its impact on various sectors, including renewable energy and electric vehicles. The speakers' ability to break down complex topics into digestible chunks and their willingness to address queries from the audience contributed to the overall success of the seminar.

Jeneena K B, Parampara Programme Coordinator of Chemistry Department, delivered the vote of thanks, expressing gratitude to all the participants, organizers, and sponsors for their valuable contributions to the success of the seminar.

Conclusion:

In conclusion, the seminar not only broadened the participants' understanding of lithium battery technology but also left them feeling motivated and empowered to explore further avenues in this rapidly evolving field. It served as a testament to the power of knowledge sharing and collaboration in driving innovation and progress.

The outcome of the programmes

• Enhanced Understanding of Lithium Battery Technology

• Inspired Innovation and Problem-Solving

• Promoted Research and Innovation

• Enhanced Presentation Skills and confidence

• Enhanced Critical Thinking, Analysis, and peer learning.

Link for attendance:

https://docs.google.com/forms/d/e/1FAIpQLSehaaeZYKLhJpHUmF8iiiYFtNplo2hKE2Ocn8j1R66BF5G0uw/viewform?usp=sf_link

# SREE NARAYANA COLLEGE, NATTIKA

Affiliated to University of Calicut
Re-accredited (Cycle III)by NAAC with B⁺
FIST,RUSA and DBT Star funded Institution

# PARAMPARA
**2023-24**

**POST GRADUATE & RESEARCH DEPARTMENT OF CHEMISTRY
UNDER THE AEGIS OF DBT STAR SCHEME**

## ORGANIZING

**SEMINAR & STUDENT'S PRESENTATION COMPETITION
FOR UNDERGRADUATE STUDENTS**

**ALL ARE WELCOME**

**Resource Person**

## March 8th
9.30 am
online Platfrom

**Competition for Students
March 7th 9.30 am
Seminar Hall**

**Dr. Jaseer Muhammad Adattil**
Principal
Govt. Women's College, Malappuram

**Topic**

**A Retrospective on Lithium
Batteries in Memory of
John Bannister Goodenough**

### The outcome of the programmes

* Enhances Understanding of Lithium Battery Technology
* Inspires Innovation and Problem-Solving
* Promotes Research and Innovation
* Enhances Presentation Skills and confidence
* Enhances Critical Thinking, Analysis, and peer learning.

**Prof.(Dr.)Subin M. P**
Principal

**Praveen V Prasad**
DBT Co-ordinator

**Jeneena K. B**
Programme Coordinator

**Parampara 2023-2024- Student Presentations**

Participants: Aiswarya A R, Gopika Pramod, Anjitha S Nair, Renjini N R, and Bhagyalakshmi Madhu.

Venue: College Seminar Hall

Date: 07-03-2024

Introduction:

The seminar on AI prospects and pitfalls was a collaborative effort by students from both undergraduate and postgraduate programs. The participants delved into various aspects of artificial intelligence, highlighting its potential benefits and associated challenges.

Here's a breakdown of each topic:

1. **Bhagyalakshmi Madhu: Generative AI:** Explore how generative AI techniques, such as GANs and VAEs, are used to create new content like images, music, and text, and discuss their implications for creativity and innovation.

2. **Anjitha S Nair: AI in Daily Life**: Discuss how AI technologies, such as virtual assistants, recommendation systems, and predictive analytics, are integrated into our daily lives, impacting various aspects like communication, entertainment, and transportation.

3. **Gopika Pramod: AI in Robotic Surgery**: Examine the role of AI in robotic-assisted surgery, including applications in preoperative planning, intraoperative guidance, and postoperative analysis, and discuss the potential benefits and challenges in healthcare.

4. **Renjini N R: Why Artificial Intelligence Required Today**: Some Applications: Highlight specific applications of AI across industries, such as finance, agriculture, and transportation, demonstrating the importance of AI in solving complex problems, improving efficiency, and driving innovation.

5. **Aiswarya A R: Artificial Intelligence for Chemistry**: Explore how AI is transforming the field of chemistry, including applications in drug discovery, materials science, and chemical synthesis, and discuss the opportunities and challenges in leveraging AI for chemical research and development.
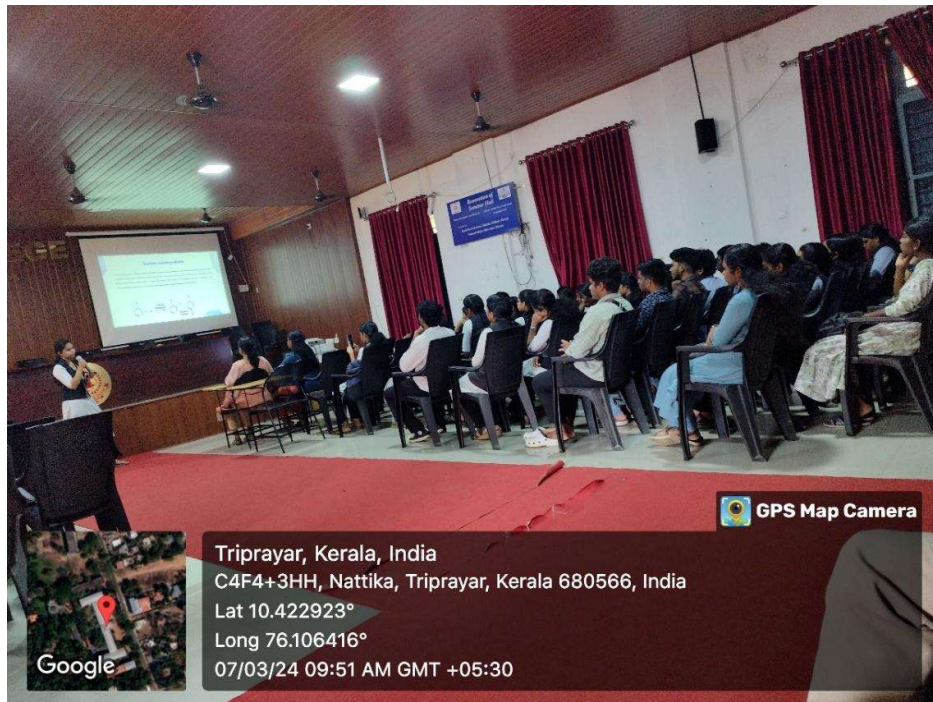
Judges:

Dr. Sreela Krishnan from the Commece Department and Dr. Laxmi Priya from the Chemistry Department provided valuable feedback and evaluated the presentations based on criteria such as content, clarity, and presentation skills.

Prize Distribution:

Gopika was awarded the first position for her outstanding presentation on AI applications in healthcare. Prizes were distributed to all participants to acknowledge their contributions to the seminar.

Conclusion:The seminar provided a platform for students to engage in meaningful discussions about the prospects and pitfalls of AI across various domains. It underscored the importance of interdisciplinary collaboration and critical reflection in harnessing the potential of AI while addressing its associated challenges.



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Long 76.106416°
07/03/24 09:51 AM GMT +05:30

Triprayar, Kerala, India
C4C4+XFJ, Nattika, Triprayar, Kerala 680566, India
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Long 76.106216°
07/03/24 10:13 AM GMT +05:30

## DEPARTMENT OF ECONOMICS

The Department of Economics in association with IQAC, has organized one day seminar on" Artificial intelligence and labor rights: Emerging issues on 13 March 2024, at seminar hall, Sreenarayana College, Nattika.The resource person was Dr.Kavitha Chalakkal, Asst. Prof. Interuniversity Centre for IPR Studies, CUSAT. The Program began with welcome address by Smt. Sreelatha.C, HOD of Department of Economics, and then followed by a presidential address of Principal Dr. Subin. M.P. The programme was felicitated by Vice chairman Dr. Sankaran KK, IQAC coordinator and Dr. Siji Narendran .N.K, Research and publication Committee coordinator. Dr. Chaithanya.E.P officially thanked participants and guests.

Dr. kavitha started the discussion with day to day examples of AI which we were using in daily basis such as sending messages through Whats app or other means for example ( good morning etc.). While typing sentence like good morning the AI can sense the mind of the sender and it shows apt word instead we typed .Then she discussed about the pros and cons of the technology and also narrated the merits and demerits of the AI. Then she brought the attention of the audience in to the impact of AI on the labour side. While the technology is growing faster, it saves time but it could harm to labor inputs. This could lead to denial the basic rights which given to laborers such a leaves, allowances etc. It will eventually affect on the labor productivity. She ended the discussion that we cannot keep aloof from technology in this near future, better is skill up you to overcome from the pitfalls of AI.

About 131 students from the department of Commerce and Economics, Malayalam (UG & PG) were participated in this Seminar. This seminar was an eye opener for all those participated.

# PROGRAMME chart

Welcome speech:Sreelatha C,
             HOD, Dept of Economics

Presidential Address: Prof. (Dr). Subin M.P
                 Principal SN College, Nattika

Felicitation: Dr. Sankaran K K
             IQAC, Coordinator

Felicitation: Dr. Siji Narendran N.K
             Research and Publication
             Committee Coordinator

KeynoteAddress: Dr. Kavita Chalakkal
               Assistant Professor,
               IUCIPRS, CuSAT

Vote of Thanks: Dr. Chaithanya EP

# POST GRADUATE DEPARTMENT OF ZOOLOGY

Post Graduate Department of Zoology, Sree Narayana College conducted "Parampara" the best practice of college which attracts students towards research field on 13th March 2024. The program was held as two sessions. The program was inaugurated by Dr Remya V.K., Head of the Department of Zoology. The theme of the programme was "Artificial Intelligence: Prospects and Pitfalls". Two students each from UG and PG classes participated in the competition on the applications and drawbacks of artificial intelligence. Artificial intelligence is revolutionizing industries reshaping economics and redefining human capabilities. As technology advances Artificial Intelligence continues to permeate various aspects of our lives, from healthcare to transportation, finance to entertainment. Artificial intelligence refers to the stimulation of human intelligence in machines. It encompasses a wide range of technologies including machine learning, natural language processing, computer vision and robotics. Megha from 2nd year M.Sc Zoology won first prize on the topic of "Artificial Intelligence: Prospects and Pitfalls". She deeply and clearly explained it very well. Vismaya the student from 2nd year B.Sc Zoology got second prize on the topic "Artificial Intelligence: Animal Communication". It was helpful to understand new information regarding AI. Sandra NS from 1st year M.Sc Zoology got third price on the topic "Artificial Intelligence: Health care, Poultry and Animal Communication". She elucidated her topic excellently. Savariya from 2nd year B.Sc Zoology received fourth prize on the topic Artificial Intelligence: Health Care. The guest lecturers Ms. Shilpa from Statistics department and Ms. Sandhra from Botany department were invited as judges. 2 The second part of the Parampara was conducted online on 13th March on the topic "Artificial Intelligence :From height to Reality" at 7:30 p.m. The programme officially started with the welcome speech done by Dr. Remya V.K, Head of the Department of Zoology. Dr Subin.M.P., Principal of SN College Nattika, presided over the event. Dr. Sankaran K.K, IQAC Coordinator and Dr. Siji Narendran N.K., Research and Publication Committee Coordinator were also present. Dr.Jiju A Mathew, Assistant Professor of Computer Science, St. Thomas College, Thrissur, detailed about "Artificial Intelligence". It was an interactive session where students can ask queries to satisfy their curiosity. His talk instilled new thoughts and idea about AI among the students. Miswa Majeed, first year M.Sc Zoology delivered the vote of thanks. The greater participation of students together with faculties made the programme successful.

PRESENTATIONS OF STUDENTS

 1. Savariya S Ashok (2nd B.Sc Zoology)

ARTIFICIAL INTELLIGENCE IN HEALTHCARE The presentation delves into the transformative role of artificial intelligence in HealthCare.Artificial intelligence (AI) is revolutionizing healthcare in various ways, from improving diagnostic accuracy to enhancing patient care and operational efficiency. AI algorithms can analyze medical images, predict patient outcomes, personalize treatment plans, streamline administrative tasks, and even assist in drug discovery. Applications include telemedicine, wearable health devices, virtual nursing assistants, and AI-driven decision support systems for clinicians. Despite its potential, challenges remain, such as data privacy concerns, regulatory hurdles, and ensuring AI's ethical use in healthcare settings. Referencs:

1. Artificial intelligence in HealthCare: Delveinsight , Dr Vishal agrawal

2. https://www.delveinsight.com/blog/top-applications-of-artificial-intelligence-inhealthcare 5 2. Vismaya Santhosh (2 nd B.Sc Zoology) ARTIFICIAL INTELLIGENCE IN ANIMAL COMMUNICATION This presentation probes how Artificial intelligence becomes a game-changer in the context of "ANIMAL COMMUNICATION". • AI technology enables the sorting, tagging, and analysis of various animal sounds to better understand their communication methods. Well, there are 2 main ways of decoding animal language : 1.AI to analyze to generate animal sounds & behaviors -Eg:

1. KOKO The Gorilla https://www.nationalgeographic.com/animals/article/gorillas-koko-sign-languageculture-animals

2. PRAIRIE DOGS https://www.cbc.ca/news/science/prairie-dogs-language-decoded-by-scientists1.1322230 2.AI to generate animal sounds & behaviors -Eg: 1. Animatronic technology shown by The robot Sophia (Hanson Robotics) Still, this AI technology shows some ethical problems and can be manipulative and harmful to the animal kingdom REFERENCES https://youtu.be/1qLZvmYRyo0?si=tfuM8RoO4_HdQ7Cc 6 3. Sandra.N.S (1st M.Sc Zoology) ARTIFICIAL INTELLIGENCE IN HEALTHCARE, POULTRY AND ANIMAL COMMUNICATION This presentation delves into the transformative role of artificial intelligence (AI) across diverse domains, focusing on its applications in healthcare,

poultry farming, and animal communication. In healthcare, AI revolutionizes diagnostics, drug discovery,treatment optimization, and personalized medicine, enhancing patient care and outcomes. In the poultry industry, AI-driven systems optimize production efficiency, disease management, and animal welfare, ensuring sustainable and ethical practices. Furthermore, AI facilitates communication with animals, fostering deeper understanding and collaboration between humans and non-human species. Through case studies and advancements, this presentation showcases the profound impact of AI in shaping the future of healthcare, agriculture, and interspecies communication. References: 1.Artificial intelligence in poultry industry,Amarnath P,Karthik I and Rakesh S 2.Artificial intelligence in healthcare: Transforming the practice of medicine, Junaid Bajwa,Usman Munir,Adithya Nori,Bryan Williams 3.Artificial intelligence in Healthcare: Review and prediction Case studies. 4.https://www.weforum.org/agenda/2023/01/how-artificial-intelligence-is-gettingus-closer-to-talking-to-animals/ 7 4. Mekha (2nd M.Sc Zoology) PROSPECTS AND PITFALLS OF ARTIFICIAL INTELLIGENCE Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think and learn like humans. The term may also be applied to any machine that exhibits traits associated with a human mind, such as learning and problem-solving. The prospects for AI (Artificial Intelligence) span across various sectors, including healthcare, finance, transportation, entertainment, and more.In healthcare AI can improve diagnostic accuracy, personalize treatment plans, and automate administrative tasks, enhancing both patient care and operational efficiency.AI algorithms can analyze market trends, manage personal finances through roboadvisors, and improve fraud detection in finance sector.Autonomous vehicles powered by AI are expected to transform urban mobility, potentially reducing accidents and improving traffic management. AI can create more immersive gaming experiences, personalized content recommendations, and even generate new music, art, and literature in the entertainment sector. While Artificial Intelligence (AI) offers immense potential for innovation and efficiency across various sectors, it also presents several pitfalls and challenges that need careful consideration and management. AI systems can inadvertently perpetuate or even amplify existing biases present in their training data.The collection and analysis of large datasets, which AI systems often require to learn and make predictions, can intrude on individual privacy. Many AI models, especially deep learning networks, are often described as "black boxes" because their decision-making processes are not easily understood by humans. Over- 8 reliance on AI could lead to a loss of skills in the workforce. AI and automation have the potential to displace a significant number of jobs, especially in manufacturing, administrative, and even certain professional sectors. AI systems

can be vulnerable to attacks, including data poisoning, model theft, and adversarial attacks. Deploying AI in sensitive or life-critical areas, such as healthcare, criminal justice, and autonomous weapons, raises ethical questions about the role of machines in making moral decision.Training large AI models requires significant computational resources and energy, which can have environmental impacts and contribute to carbon emissions.There is potential for AI to be misused, including in creating deepfakes, automating cyber attacks, or enabling mass surveillance, which can have profound negative societal impacts. References:

1. https://www.techtarget.com/searchenterpriseai/definition/AI-ArtificialIntelligence

2. https://www.ibm.com/topics/artificial-intelligence

3. https://www.investopedia.com/terms/a/artificial-intelligence-ai.asp

4. https://www.simplilearn.com/advantages-and-disadvantages-of-artificialintelligence-article

## DEPARTMENT OF PHYSICS

In connection with "Parampara 2023-24", the Post graduate Department of Physics, Research and Publication Committee and lQAC of Sree Narayana College, Nattika under the aegis of the DBT Star Scheme, **organized** a talk on "Artificial **intelligence** - Prospects and Pitfalls" .

*Event Overview*: Parampara 2023 - 24 of the Post Graduate Department of Physics was conducted on 14 March 2024, in the Seminar hall of Sree Narayana College, Nattika at 1.30 pm. Former Principal and HOD of English Dr.Jaya P S, Teachers from other departments and Students enriched the event with their presence.

After formal inaugural session, Invited Speaker Dr. Madhu Placheri, Assistant Professor, Expert in cyber security and ethical hacking, Department of Computer Applications, CMS College of Science and Commerce , Coimbatore delivered a talk on " Artificial Intelligence - Prospects and Pitfalls". In that session, speaker pointed out the importance of AI and Robotics as it holds immense promise across various sectors from health care and finance to transportation and entertainment. Speaker discussed the pitfalls and challenges of AI also.

**Various working models related to Al were demonstrated, that generated much interest in the field of Robotics.**

After that Physics student, Ms. Anne Mary David made a presentation on the topic "Artificial Intelligence".

*Participant Engagement*: About **65** students and 10 teaching staff actively participated in the program, showcasing a remarkable enthusiasm for the subject matter.

*Outcome* **: Seminar showcased the recent developments in AI that inspired students and provided them an opportunity, to get in touch with the fields related to AI and Robotics.**

**Working models demonstrated were highly appreciated as it promoted the critical thinking skills and understanding level of students in the field of AI.**

**DEPARTMENT OF BOTANY**

AI in Biological Sciences Workshop
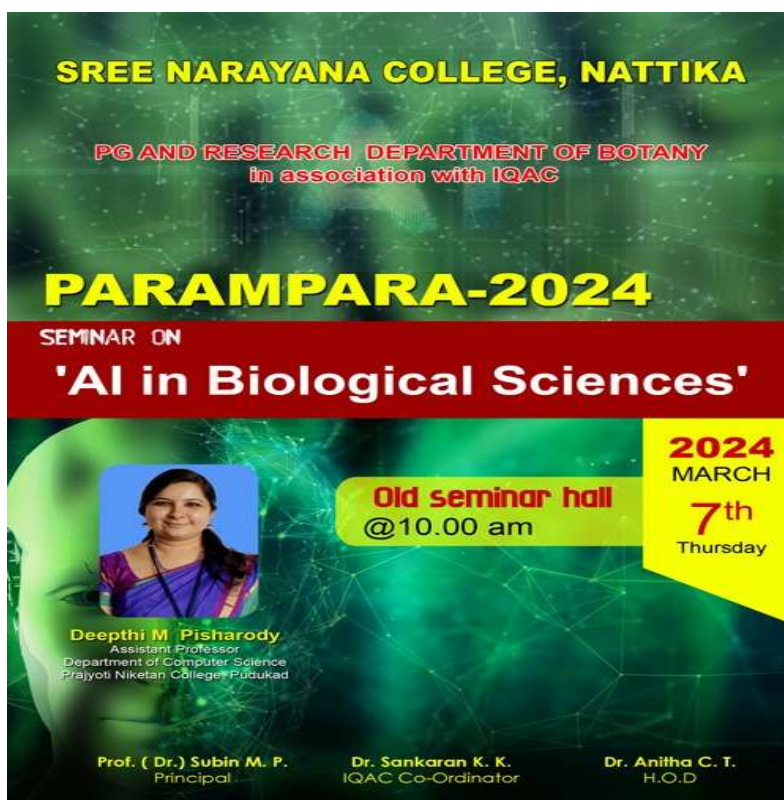


As part of the parampara the seminar series Postgraduate and research department of Botany conducted seminar  titled "AI in Biological Sciences" was led by Deepthy Pisharody, Assistant Professor, Department of Computer Science at Prajyoti Niketan College, Pudukad. It took place on 7th March 2024, Thursday, at the Old Seminar Hall and began at 10:00 AM. Assistan Professor Deepthy Pisharody provided a comprehensive introduction to the diverse applications of Artificial Intelligence (AI) in biology. The discussions spanned from foundational research techniques to practical healthcare solutions, sparking engaging dialogue among participants. The event was well-received and served as a significant educational milestone, equipping attendees with knowledge about the integration of AI across various biological disciplines.

The workshop opened with a Welcome Address by Prof. (Dr.) Anitha C.T, Head of the PG & Research Department of Botany, Sree Narayana College, Nattika. Dr. Anitha warmly greeted the audience and stressed the importance of interdisciplinary collaboration and the growing relevance of AI in biological sciences.

The Presidential Address was delivered by Prof. (Dr.) Subin M.P, Principal of Sree Narayana College, Nattika. Dr. Subin underscored the transformative impact of AI in advancing biological research and its potential to revolutionize healthcare and conservation practices.

Facilitation was offered by Dr. Sankaran K.K, IQAC (Internal Quality Assurance Cell) Co-Ordinator, Sree Narayana College, Nattika. Dr. Sankaran commended the workshop organizers and highlighted the importance of quality education and innovative research, especially in fields influenced by technological advancements like AI.

The seminar commenced with a captivating animation, setting an engaging tone for the event. The resource person then introduced the various applications of Artificial Intelligence (AI) in the field of biology

The session concluded with a Vote of Thanks presented by Mr. Praveen Prasad, Assistant Professor, PG & Research Department of Botany. Mr. Praveen expressed his gratitude to all the dignitaries, guest speakers, participants, and the organizing team for their contributions and active engagement, which made the event a resounding success.

The session underscored the revolutionary potential of AI in addressing complex biological questions, fostering more efficient discoveries, and providing personalized healthcare solutions. Several websites for in-depth biological studies were also shared, enabling participants to explore AI in biology further.

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Student Presentations

1. Archana P.S (M.Sc Botany ): Artificial Intelligence and Statistical Analysis

Archana presented on the intersection of AI and biostatistics, emphasizing the transformative impact AI has on statistical analysis in biological and medical research.

- AI Technologies: The integration of machine learning (ML) and deep learning in biostatistics, revolutionizing data analysis and enhancing decision-making in fields like drug development and epidemiological research.

- AI Algorithms: Focus on supervised and unsupervised learning, and reinforcement learning, with applications in handling complex datasets from clinical trials, genomics, and epidemiology.

- Challenges in AI-Driven Biostatistics: Concerns such as data quality, population bias, and the "black box" nature of many AI models, which complicate the interpretability and reliability of AI in healthcare settings.

- Statistical Assumptions: Deep learning models often defy traditional statistical principles, posing challenges for biostatisticians.

- Future Developments: The integration of AI with classical statistical methodologies to enhance interpretability while maintaining predictive power, and the importance of regulatory frameworks to ensure fairness, transparency, and ethical data use.

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2. Sandra N .R (M.Sc. Botany ): AI in Ecology and Evolutionary Biology

The integration of ecology and evolutionary biology is essential to understanding how species adapt to changing environments and how ecosystems function.Conservation efforts must take into account both the ecological dynamics and evolutionary potential of species in order to be successful in preserving biodiversity.The rise of computational tools, including AI and ecological modeling, is significantly enhancing our ability to predict ecological and evolutionary outcomes, enabling more effective management of ecosystems and species.Human activity is having a profound impact on evolutionary processes, and understanding these effects is crucial for addressing challenges like disease emergence, species extinctions, and ecosystem degradation.Evolutionary thinking should be integrated into ecological management practices to ensure that ecosystems can adapt to ongoing environmental changes, particularly climate change.

 By exploring the ways in which ecological and evolutionary processes shape biodiversity and ecosystem function, the challenges posed by environmental change and the potential for innovative solutions through a deeper understanding of nature's processes. AI  plays an important role in;

- Ecological Dynamics and Evolutionary Potential: The need to integrate these concepts for successful biodiversity conservation.
- AI in Predictive Modeling: Enhancing the ability to forecast ecological and evolution ary outcomes for better ecosystem management.
- Impact of Human Activity: AI tools are crucial for assessing and mitigating human-induced changes, such as disease emergence and species extinctions.
- Evolutionary Approaches: Integrating evolutionary thinking into ecosystem management, especially in the face of climate change.

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3. Abhisha  T.B (M.Sc. Botany): AI in Plant Taxonomy

The session on AI in Plant Taxonomy detailed groundbreaking applications, including:

1. Plant Identification Using Image Recognition

- o Deep Learning Models: Algorithms like convolutional neural networks (CNNs) identify plant species with high accuracy.

- o Tools: Apps like PlantSnap, PlantNet, and Leafsnap facilitate plant identification and contribute to biodiversity monitoring.

- o Impact: These tools empower both researchers and plant enthusiasts to document and preserve biodiversity.

2. Automated Classification of Plant Species

- o Machine Learning for Classification: Analyzing morphological features for taxonomic categorization.

- o Phylomorphological Analysis: Integrating physical and genetic data for more precise classification.

3. Big Data and Plant Databases

- o Data Management: AI techniques help organize large datasets, improving accessibility and integration across global platforms.

- o Automated Literature Search: Tools like GBIF streamline data curation and enhance research efficiency.

4. Molecular Phylogenetics and AI

- o Phylogenetic Tree Construction: AI-driven genetic analyses aid in mapping evolutionary relationships.

- o Genomic Data Mining: Machine learning identifies genetic markers, aiding in evolutionary research.

5. Species Prediction and Habitat Modeling

- o Predicting Distributions: AI models forecast plant habitats and responses to climate change, aiding in conservation efforts.

- o Invasive Species Detection: Predictive modeling assists in tracking and managing invasive species.

6. Digital Herbarium and AI-Enhanced Taxonomy

   - o Herbarium Digitization: AI automates the cataloging of plant specimens, increasing global research collaboration.

   - o Virtual Herbarium: Accessible collections of digitized specimens support taxonomic studies.

   7. AI for Phytochemical Analysis

   - o Metabolome Analysis: AI identifies phytochemical patterns, aiding species classification and the discovery of new compounds.

# DEPARTMENT OF MALAYALAM

The Post Graduate Department of Malayalam, SN College Nattika had conducted a seminar as the part of Parampara. Parampara is Lecture Series was organized by Research and Publication Committee, IQAC and PTA of SN College, Nattika on the subject Artificial Intelligence for the year 2023-2024.The venue of the seminar was the new seminar hall  at 2pm on 15/03/2024.Dr. Jaya P. S, HoD of English Department chaired the programme. Capt. K. S. Letha warmly welcomed all. Dr. K. S. Sankaran, IQAC Co-ordinator and HoD of Statistics Department and Dr. Siji Narendran, Assistant Professor, Physics Department and the co-ordinator of Parampara gave felicitational speech. Deepesh, Malayalam Association Secretory thanked all.

  Our chief guest was Dr. Muhammed Basheer. K. K, Assistant Professor, K. K. T. M Government College. He talked on the topic "Artificial Intelligence : Possibilities and Obstacles". His presentation was so nice . By showing some pictures through the slides on artificial intelligence, he makes his seminar more attractive.He introduced some AI applications especially Chat GPT by telling its posdibilities in the field of Literature and Education. He concluded his words that AI has some social impacts and limitations. He pointed out certain crimes have been done in the society by using AI.

   After this session Nidhin Das. K. H, our PG student presented a subject  "Chirakettonavum Karshika Samskruthiyum-Oru Pradesika Charithrapadanam". Chirakettonavum is a ritual festivated by the peasants in ancient times at Peringottukara Desam in Thrissur. He said that the villagers of that place celebrated it still.

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