

## **A REPORT**

### **Report on the Webinar: "Exploring AI, ML and Their Biological Parallels"**

**Organizer:** Association of All Computer Science Teachers (AACST)

**Activity:** Webinar on “Exploring AI, ML and Their Biological Parallels”

**Director: Dr. Abha Khandelwal**, Retd HOD, Computer Science, Hislop College, Nagpur,  
And **Founder Association of All Computer Science Teachers.**

**Coordinator: Dr S B Kishor**, HOD Computer Science, S. P. College, Chandrapur And  
**President Association of All Computer Science Teachers.**

**Resource Person: Prof Manu Pratap Singh**, Professor and Director of the Department  
of Computer Science, Dr. Bhimrao Ambedkar University, Agra.

**Chair Person: Dr Abha Khandelwal**

**Master of Ceremony: Mrs. Rupa Rajakumari Peter**, Asst. Prof Dept of Computer  
Science, Hislop College, Nagour

**Total Participants: 62**

**Date: 27/07/2024**

**Timing: 6:30 pm to 8:00 pm**

#### **Objective**

The webinar on "Exploring AI, ML and Their Biological Parallels" was held with great enthusiasm and participation. The session aimed to delve into the intriguing connections between artificial intelligence (AI), machine learning (ML), and the human brain, highlighting the parallels that exist between these advanced technologies and biological systems.

#### **Session Highlights**

##### **Resource Person: Prof. Manu Pratap Singh**

Prof. Manu Pratap Singh from Agra was the key speaker for the webinar. He presented an enlightening discussion that drew fascinating correlations between the structure of the human brain and neural networks used in AI. His expertise and insightful explanations captivated the audience, making complex concepts accessible and engaging.

##### **Chairperson: Dr. Abha Khandelwal**

Dr. Abha Khandelwal chaired the session with remarkable poise and clarity. She beautifully summarized the key points discussed by Prof. Singh and acknowledged the active participation of the attendees. Her closing remarks underscored the significance of the interaction between the participants and the resource person, which greatly enriched the session.

#### **Question and Answer Session**

##### **Assisted by Dr. S. B. Kishor**

The Q&A session was meticulously managed by Dr. S. B. Kishor. He facilitated a productive and engaging discussion, ensuring that the questions from the participants were effectively addressed by Prof. Singh.

## Session Conduction

### Conducted by Mrs. Rupa Rajakumari Peter

The overall session was smoothly conducted by Mrs. Rupa Rajakumari Peter. She started the session welcoming one and all. Her seamless coordination and management ensured that the webinar proceeded without any hitches, maintaining a steady flow throughout the event.

### Introduction of Dignitaries: Mrs. Shital Bora

Mrs. Shital Bora, a faculty member from S. P. College, Chandrapur, introduced the resource person and the chairperson. She provided a comprehensive and impressive overview of their biodata, highlighting their achievements and contributions to the field.

### Vote of Thanks

### Delivered by Mr. Nishant Shastrakar

Mr. Nishant Shastrakar, also a faculty member from S. P. College, Chandrapur, concluded the webinar by delivering a heartfelt vote of thanks. He expressed gratitude to Prof. Manu Pratap Singh, Dr. Abha Khandelwal, Dr. S. B. Kishor, Mrs. Rupa Rajakumari Peter, and all the participants for their contributions in making the webinar a resounding success.

### Participation Certificates

To acknowledge the active involvement participation certificates were awarded to all who attended the webinar. This gesture aimed to appreciate their engagement and commitment to learning.

### Conclusion

The webinar on "Exploring AI, ML and Their Biological Parallels" was a highly informative and engaging session. The collaborative efforts of the distinguished speaker, the chairperson, and the organizing team were pivotal in making the event a meaningful and enriching experience for all attendees.

**THE BIOLOGICAL NEURON**

Manu Pratap Singh (Presenting)

**Diagram Labels:** Axon hillock, Dendrite, Soma, Nucleus, Axon, Terminal buttons, Synapse, Myelin sheath, Dendrite.

**The synapse:** Axon, Terminal button, Synapse, Myelin sheath, Dendrite.

- ✶ The brain is a collection of about 10 billion interconnected neurons. Each neuron is a cell that uses biochemical reactions to receive, process and transmit information.
- ✶ Each terminal button is connected to other neurons across a small gap called a synapse.
- ✶ A neuron's dendritic tree is connected to a thousand neighbouring neurons. When one of those neurons fire, a positive or negative charge is received by one of the dendrites. The strengths of all the received charges are added together through the processes of spatial and temporal summation

SHITAL PADGELWAR, Manu Pratap Singh, Rupa Rajakumari Peter, Dr S B Kishor, Dr. Abha Khandelwal, 29 others