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One Week Faculty Development Program   on

Artificial Intelligence in Big Data Analytics (AIBDA 2019)
Technically sponsored by IEEE CIS Kolkata Chapter

15th July - 19th July, 2019

Organized by

Department of Information Technology, RCC Institute of Information Technology
Canal South Road, Beliaghata, Kolkata – 700015, West Bengal, INDIA

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Objective of AIBDA 2019:

As one of the most "hyped" terms in the market today, there is no consensus as to how to define big data. This course is for those new to data science and interested in understanding why the Big Data Era has come to be. It is for those who want to become conversant with the terminology and the core concepts behind big data problems, applications, and systems. The term Big Data refers to all the data that is being generated across the globe at an unprecedented rate. This data could be either structured or unstructured.

Apart from big data, a yet another technological revolution that is taking the world by storm these days is Artificial Intelligence or AI. It includes a set of technologies that empower connected machines and computers to learn, evolve and improve upon their own learning by reiterating and consistently updating the data bank through recursive experiments and human intervention.

As a matter of fact, the technological giants, corporations, and data scientists worldwide are already foreseeing big data to make a huge difference in the overall AI landscape.

In the current scenario, there's a huge requirement for implementing artificial intelligence in big data analytics. Hence, our department decides to offer an one week FDP on the above mentioned subjects for helping the faculty members who are interested to do their work using artificial intelligence in Big Data.

Committee Members of AIBDA 2019:

Advisory Committee

Prof. Ajoy Kumar Ray (Padma Shri), Chairman, RCCIIT

Prof. Siddhartha Bhattacharyya, Principal, RCCIIT

Dr. Indrajit Pan, Associate Professor, IT, and FIC (Academics), RCCIIT

Mr. Sayantan Sinha, Registrar, RCCIIT

Dr. Abhijit Das, HOD, IT, RCCIIT

Program Coordinators

Dr. Shyantani Maiti, Assistant Professor, IT
Ms. Shaswati Roy, Assistant Professor, IT

Organizing Committee Members

Mr. Hrishikesh Bhaumik, Associate Professor, IT
Dr. Dipankar Majumdar, Associate Professor, IT
Mr. Jayanta Datta, Assistant Professor, IT
Ms. Abantika Choudhury, Assistant Professor, IT
Mr. Ranjan Jana, Assistant Professor, IT
Ms. Moumita Deb, Assistant Professor, IT
Mr. Hiranmoy Roy, Assistant Professor, IT
Mr. Soumyadip Dhar, Assistant Professor, IT
Mr. Pankaj Pal, Assistant Professor, IT
Mr. Amit Khan, Assistant Professor, IT
Mr. Sudarsan Biswas, Assistant Professor, IT
Ms. Kamalika Banerjee, Technical Assistant, IT
Mr. Deepam Ganguly, Technical Assistant, IT
Mr. Swapan Kumar Banerjee, Junior Assistant, IT
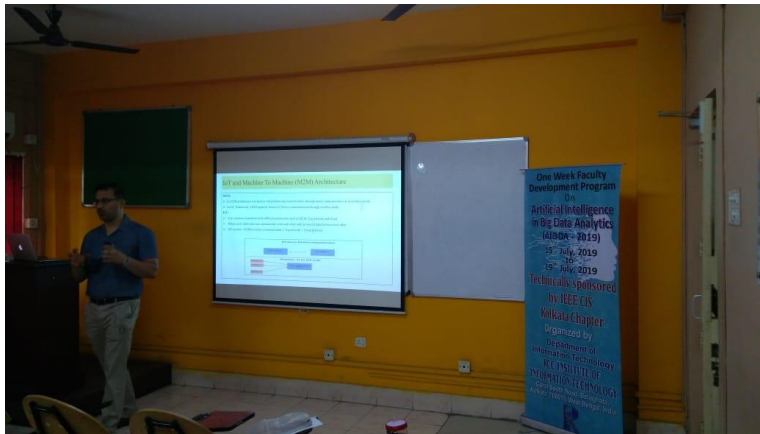
Details of AIBDA 2019:

Details of Talk Delivered:

Date: 15-Jul-2019

Speaker Name: Prof. Amlan Chakrabarti

Talk Title: Machine Learning for IoT Analytics

Talk Abstract: Rapid developments in hardware, software, and communication technologies have accelerated the inroad of Internet-connected sensory devices commonly known as Internet-of-Things (IoTs) that provide observations and data measurements from the physical world. By 2020, it is estimated that the total number of Internet-connected devices being used will be amounting to 50 billion. As these numbers grow and technologies become more mature, the IoT generates big data with a variety of multiple modalities and varying data quality. Intelligent processing and analysis of this big data is the key to developing smart IoT applications. This lecture emphasises upon the various machine-learning methods that deal with the challenges presented by IoT data by considering some of the applications in the emerging application domains.

Date: 15-Jul-2019

Speaker Name: Dr. Indrajit Pan

Talk Title: Data Mining Techniques on Various Applications

Talk Abstract: The talk mainly give the brief overview of big data and data mining techniques which can be applied in various domains. The basic differences of big data analytics and analysis; data and knowledge have been discussed. Various steps of big data pipeline are elaborated. Apriori algorithm and predictive analysis were elaborated in this talk along with suitable case studies.
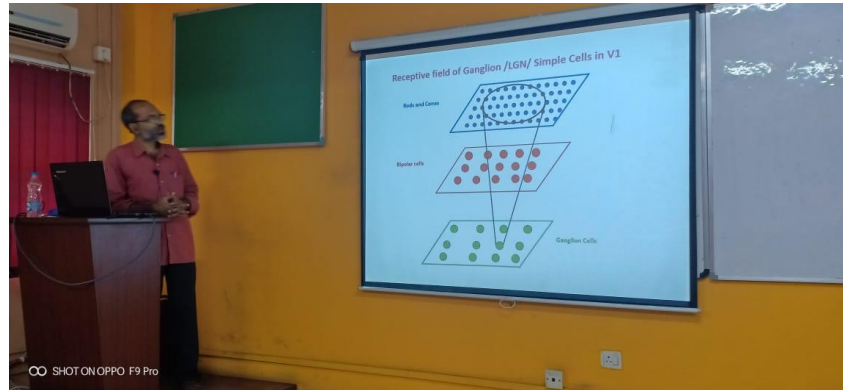

Date: 16-Jul-2019

Speaker Name: Dr. Kuntal Ghosh

Talk Title: Image & Information, Computer & Vision through neural nets: then and now

Talk Abstract: The talk dealt with some preliminary, but less discussed concepts in computation, information, patterns and AI. Then it will take a journey through earliest brain like computing, viz.

perceptron to the contemporary deep neural networks restricting itself mainly to the apparently dull yet fascinating world world of gray scale images, and vision.

Date: 17-Jul-2019

Speaker Name: Dr. Pralay Mitra

Talk Title: Artificial Intelligence in Bioinformatics for a better healthcare

Talk Abstract: This talk dealt with the basics of bioinformatics and applications of bioinformatics for better healthcare using artificial intelligence. The recent tools which have been developed using artifical intelligence in bioinformatics were also discussed in details. Application of artificial intelligence for drug design were also discussed.

Date: 18-Jul-2019

Speaker Name: Prof. Paramartha Dutta

Talk Title: Machine Intelligence For Big Data Challenges

Talk Abstract: This talk discussed about the basic idea of big data and how it is different from traditional data. It also discussed various issues and challenges of big data using artificial intelligence. Basics of

machine learning and deep learning ad how to apply deep learning as a big data analytic tool are discussed. Critical issues of machine learning for big data were elaborated in this talk.
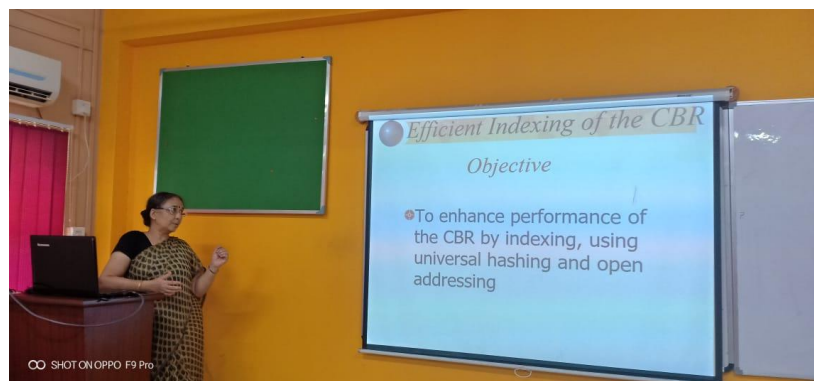

Date: 19-Jul-2019

Speaker Name: Dr. Chitrita Chaudhuri

Talk Title: Case-Based Reasoning Techniques

Talk Abstract: This talk was organized into two main parts – the first briefly introduces how Case Based Reasoning (CBR) concepts came into being - and the second presents a summarized view of some specific areas where CBR can be utilized for the benefit of the society. One primary requirement of a CBR system is the acquisition of the case base. In today's data centric world, manual incorporation of cases into the case base is a severely outmoded process. Rather automatic – or semi-automatic – techniques of importing cases from pre-existing sources are clearly indicated. The most convenient sources are the available big data repositories. So interested investigators are urged to link up CBR with big data analytics to reap the benefits of both domains successfully.

Program Schedule of AIBDA 2019

Date	Time	Description
15-Jul-19	10:30 a.m. - 10:45 a.m.	Registration
	10:45 a.m. - 11:00 a.m.	Inaurgration of the Program
	11:00 a.m. - 11:45 a.m.	Talk by Prof. Amlan Chakrabarti, CU
	11:45 a.m. - 12:00 p.m.	Tea Break
	12:00 p.m. - 1:00 p.m.	Talk by Prof. Amlan Chakrabarti, CU
	2:00 p.m. - 2:45 p.m.	Talk by Dr. Indrajit Pan, RCCIIT
	2:45 p.m. - 3:00 p.m.	Tea Break
	3:00 p.m. - 4:00 p.m.	Talk by Dr. Indrajit Pan, RCCIIT
16-Jul-19	11:00 a.m. - 11:45 a.m.	Talk by Dr. Kuntal Ghosh, ISI Kolkata
	11:45 a.m. - 12:00 p.m.	Tea Break
	12:00 p.m. - 1:00 p.m.	Talk by Dr. Kuntal Ghosh, ISI Kolkata
	2:00 p.m. - 4:00 p.m.	Hands On Session by Hiranmoy Roy, RCCIIT and Soumyadip Dhar, RCCIIT
17-Jul-19	11:30 a.m. - 12:15 p.m.	Talk by Dr. Pralay Mitra, IIT Kharagpur
	12:15 p.m. - 12:30 p.m.	Tea Break
	12:30 p.m. - 1:30 p.m.	Talk by Dr. Pralay Mitra, IIT Kharagpur
	2:30 p.m. - 4:30 p.m.	Hands On Session by Hiranmoy Roy, RCCIIT and Soumyadip Dhar, RCCIIT
18-Jul-19	10:30 a.m. - 11:30 a.m.	Talk by Prof. Paramartha Dutta, Visva Bharati University
	11:30 a.m. - 11:45 a.m.	Tea Break
	11:45 a.m. - 12:30 p.m.	Talk by Prof. Paramartha Dutta, Visva Bharati University
	2:00 p.m. - 4:00 p.m.	Hands On Session by Ranjan Jana, RCCIIT
19-Jul-19	11:00 a.m. - 11:45 a.m.	Talk by Dr. Chitrita Chaudhuri, JU
	11:45 a.m. - 12:00 p.m.	Tea Break
	12:00 p.m. - 1:00 p.m.	Talk by Dr. Chitrita Chaudhuri, JU
	2:30 p.m. - 4:00 p.m.	Valedictory

Program Coordinators :

Shaswati Roy 25/07/2019

Shaswati Roy

Shyantani Maiti 25.07.2019

Shyantani Maiti