"Two Days Seminar on Artificial Intelligence and Machine Learning: An Application Prospective"

(5th March – 6th March, 2020)

Sponsored By: **Rajiv Gandhi University, Doimukh**

Organized By: **Dept. of Electronics and Communication Engineering & Dept. of Computer Science and Engineering**

Submitted By:

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Rono Hills, Doimukh- 791112

Arunachal Pradesh, INDIA

March, 2020

Acknowledgments

First of all, I am indebted to the GOD Almighty for giving me an opportunity to excel in my efforts to complete this seminar successfully.

I am extremely grateful to Prof. Saket Kushwaha, Hon'ble Vice-Chancellor, Rajiv Gandhi University for always encouraging and supporting to conduct these kinds of programs.

I feel honored and privileged to offer my gratitude to Hon'ble Chief Guest, Prof. H. S. Yadav, Director, Nerist and Prof. A. Mitra, Pro Vice-Chancellor, Rajiv Gandhi University for gracing the inaugural session.

My heartfelt gratitude to Prof. Pradip Kumar Kalita, Dean, Faculty of Engineering and Technology, Rajiv Gandhi University and Prof. Utpal Bhattachargee, Dept. of CSE, for thier support in conducting the seminar.

I express and acknowledge the support received from Mr. Jagdeep Rahul, Head(i/c), Dept. of ECE and Dr. Marpe Sora, Head(i/c), Dept. of CSE, Rajiv Gandhi University.

I express my heartfelt acknowledgment to all the resource persons who have visited and delivered their lectures.

I feel special by acknowledging the support received from Mr. Bhaskar Jyoti Chutia, Co-Convenor of the programme and Ms. Champa Tanga, Assistant Professor, Dept. of ECE while whole duration of the seminar.

I would like to acknowledge the Support of Guest Faculties, department of CSE and M. Tech. Students of ECE who have helped throughout the seminar.

I will be failing in duty if I do not acknowledge the support of Faculty members, Research Scholars, Students and staffs during seminar.

Thanking You

Kurmendra

Organizing Committee

Sr. No.	Dignitaries	Role
1	Prof. Saket Kushwaha, Hon'ble Vice Chancellor, Rajiv Gandhi University, Doimukh	Chief Patron
2	Prof. H. S. Yadav, Director , NERIST, Nirjuli.	Chief Guest
3	Prof. A. Mitra, Pro- Vice Chancellor, , Rajiv Gandhi University, Doimukh	Chair Person
4	Prof. Pradeep Kumar Kalita, Dean, Faculty of Engineering and Technology, Rajiv Gandhi University, Doimukh.	Patron
5	Mr. Kurmendra, Assistant Professor, Department of Electronics & Communication Enigneering, Rajiv Gandhi University, Doimukh.	Convenor
6	Mr. Bhaskar Jyoti Chutia, Assistant Professor, Department of Computer Science and Engineering, Rajiv Gandhi University, Doimukh.	Co-Convenor
7	Prof. Utpal Bhattacharjee, Department of Computer Science and Engineering, Rajiv Gandhi University, Doimukh.	Member
8	Mr. Jagdeep Rahul, Assistant Prof. and Head, Department of Electronics & Communication Enigneering, Rajiv Gandhi University, Doimukh.	Member
9	Dr. Marpe Sora, Head(i/c) and Assistant Professor, Department of Computer Science and Engineering, Rajiv Gandhi University, Doimukh	Member
10	Mr. Ani Taggu, Associate Prof. , Department of Computer Science and Engineering, Rajiv Gandhi University, Doimukh.	Member
11	Mr. Firoz A, Assistant Professor, Department of Computer Science and Engineering, Rajiv Gandhi University, Doimukh.	Member
12	Mr. Sikdar Md. Sultan Askari, Assistant Professor, Department of Computer Science and Engineering, Rajiv Gandhi University, Doimukh.	Member
13	Ms. Bomken Kamdak Bam, Assistant Professor, Department of Computer Science and Engineering, Rajiv Gandhi University, Doimukh.	Member
14	Mr. Satish Kumar Das, Assistant Professor, Department of Computer Science and Engineering, Rajiv Gandhi University, Doimukh.	Member
15	Mr. Maibam Sanju Meetei, Assistant Professor, Department of Electronics & Communication Enigneering, Rajiv Gandhi University, Doimukh.	Member
16	Ms. Champa Tanga, Assistant Professor, Department of Electronics & Communication Enigneering, Rajiv Gandhi University, Doimukh.	Member

1.1 Background

Machine learning and artificial intelligence has become much popular technologies for humans. Artificial Intelligence (A.I.) is a multidisciplinary field whose goal is to automate activities that presently require human intelligence. Recent successes in A.I. include computerized medical diagnosticians and systems that automatically customize hardware to particular user requirements. The major problem areas addressed in A.I. can be summarized as Perception, Manipulation, Reasoning, Communication, and Learning. Perception is concerned with building models of the physical world from sensory input (visual, audio, etc.). Manipulation is concerned with articulating appendages (e.g., mechanical arms, locomotion devices) in order to affect a desired state in the physical world. Reasoning is concerned with higher level cognitive functions such as planning, drawing inferential conclusions from a world model, diagnosing, designing, etc. Communication treats the problem understanding and conveying information through the use of language. Finally, Learning treats the problem of automatically improving system performance over time based on the system's experience. Many important technical concepts have arisen from A.I. that unify these diverse problem areas and that form the foundation of the scientific discipline. Generally, A.I. systems function based on a Knowledge Base of facts and rules that characterize the system's domain of proficiency. The elements of a Knowledge Base consist of independently valid (or at least plausible) chunks of information. The system must automatically organize and utilize this information to solve the specific problems that it encounters. This organization process can be generally characterized as a Search directed toward specific goals. The search is made complex because of the need to determine the relevance of information and because of the frequent occurrence of uncertain and ambiguous data. Heuristics provide the A.I. system with a mechanism for focusing its attention and controlling its searching processes. The necessarily adaptive organization of A.I. systems yields the requirement for A.I. computational Architectures. All knowledge utilized by the system must be represented within such architecture. The acquisition and encoding of real-world knowledge into A.I. architecture comprises the subfield of Knowledge Engineering.

Machine learning has been central to AI research from the beginning. Unsupervised learning is the ability to find patterns in a stream of input. Supervised learning includes both classification and numerical regression. Classification is used to determine what category something belongs in, after seeing a number of examples of things from several categories. Regression takes a set of numerical input/output examples and attempts to discover a continuous function that would generate the outputs from the inputs. In reinforcement learning the agent is rewarded for good responses and punished for bad ones. These can be analyzed in terms of decision theory, using concepts like utility. The mathematical analysis of machine learning algorithms and their performance is a branch of theoretical computer science known as computational learning theory.

1.2 Objective

The Key objectives of the seminar are:

To provide a platform for participants to discuss on Aritifical Intelligence and Machine learning with basics and Advance prospective

To explore the opportunities and Challenges in the area of Artificial Intelligence and Machine learning to offer insights into exciting advancements in technology.

The real world implementation of AI and explore how they have changed our lives.

1.3 Brief About Convener and Co-convener

Convener

Mr. Kurmendra is working as Assistant Professor in the Department of Electronics and Communication Engineering of Rajiv Gandhi University (A Central University), Doimukh, Itanagar. He has received his Bachelor of Technology degree in ECE from Uttar Pradesh Technical University, Lucknow, Uttar Pradesh in year 2012 and Master of Technology degree in Microelectronics & VLSI Design from NIT, Silchar , Assam in year 2015. He has served as Guest Faculty in the department of Electronics & Communication, MNNIT, Allahabad, India from July, 2015 to February, 2016. He has also served as JRF in Electronics Engineering Department, IIT(ISM) Dhanbad. He was conferred to "Outstanding Presenter Award" for his paper presentation in the international conference on Emerging Electrical energy, Electronics and Computing technologies 2019 (ICE4CT-2019)

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Co-Convener

Mr. Bhaskar Jyoti Chutia is working as Assistant Professor in the Department of Computer Science and Engineering of Rajiv Gandhi University (A Central University), Doimukh, Itanagar. He has received his Bachelor of Engineering degree with honours in CSE from Gauhati University, Guwahati, Assam in the year 2011. He completed his Master of Technology degree in Information Technology from Tezpur University, Tezpur, Assam in year 2013. He has served as Guest Faculty in the Department of Computer Science and Engineering, NERIST, Nirjuli, Arunachal Pradesh from January 2014 to May 2014.

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1.4 Resource Persons

Dr. AHEIBAM DINAMANI SINGH, Associate Professor, NIT Manipur

Dr. AHEIBAM DINAMANI SINGH received the B.Tech. degree in Electronics and Communication Engineering from North Eastern Hills University NEHU Shillong, India, in 2004. And received the M.Tech. and Ph.D. degree in Electronics and Communication Engineering from the North Eastern Regional Institute of Science and Technology, NERIST, Nirjuli, Arunachal Pradesh, India, in 2010 and 2015 respectively. He was working as a faculty in the Department of Electronics and Communication Engineering, NERIST from 20/06/2006 till 07/01/2020.He is currently working as an Associate Professor in the Department of Electronics and Communication Engineering, at the National Institute of Technology, Manipur, India. His research interests are in the field of Artificial Intelligence, wireless communication, Fading Channels, Image Processing, Fuzzy Logic, Signal Processing, Antennas array, and Millimeter-wave antennas. He has published over 55 scientific papers in research journals, international and national conferences. He has served as the organizing Chair of the International Conference on Computers and Management Skills (ICCM) 2019. He was awarded Child Scientist Award 1995 by NCSCT Network Ned Delhi and Conferred Bal Shree Award for Creative Scientific Innovations 1997 by the then President of India Dr. K. R. Narayanan at the Rashtrapati Bhavan.

Email Id: aheibamdina@yahoo.co.in , Mo. No. 9436632958

Dr. Sanasam Ranbir Singh, Associate Professor, IIT Guwahati

He was born in Imphal (East), Manipur to Sanasam (Ongbi) Ibemhal Devi and Sanasam Khomei Singh. Currently, He is working an Associate Professor in the Department of Computer Science and Engineering,Indian Institute of Technology Guwahati. He has received His Ph.D from Indian Institute of Technology Madras . During his Ph.D

program, he was supported by IBM PhD Fellowship Award (a world wide competition).

Besides this he has won following awards

- NEC merit Scholarship -- 1994 to 2000
- Microsoft Young Faculty Award – 2011
- Hockey, representing Arunachal Pradesh (Bronze Medal winner) in the XII North Eastern Sport Festival, Sports Authority of India

He works in the area of Information Retrieval especially on the core issues of Web Search Engine customization. As a part of his Ph.D, he worked on the problems related to modeling of Web Page Updates, designing different Text classification frameworks suitable for Web document classification and effect of real time implicit feedback on Search Results customization. His research interest includes machine learning, data mining and complex network analysis (for social network in particular).

Email Id: ranbir@iitg.ac.in , Mo. No. 9678007013

Prof. Kandarpa Kumar Sarma, Professor, Gauhati University

Kandarpa Kumar Sarma is professor and head, Department of Electronics and Communication Engineering at Gauhati University. His research interests include soft-computation and its applications, mobile communication, antenna design, speech processing, document image analysis, and signal processing applications in high-energy physics, neuro-computing, and computational models for social science applications. Prof. Sarma received his MTech degree in signal processing and his PhD in mobile communication from the Indian Institute of Technology Guwahati (IITG), Guwahati, Assam, India. He also completed Post Doc research from Technical University Sofia, Bulgaria in 2015. He is a Senior Member of IEEE, a Fellow of the Institution of Electronics and Telecommunication Engineers in India, a member of the International Neural Network Society, a Life Member of the Indian Society for Technical Education, and a Life Member of the Computer Society of India.

feature extraction, learning (artificial intelligence), mean square error methods, multilayer perceptrons, neural nets, backpropagation, human computer interaction, image segmentation, interference suppression, natural

language processing, pattern classification, speech processing, speech recognition, wireless channels.

He serves as an Editor-in-Chief of International Journal of Intelligent System Design and Computing (IJISDC, UK), guest editor of several international journals, reviewer of over thirty international journals and over hundred fifty international conferences.

Email Id: Mo.kandarpaks@gauhati.ac.in , No. 9401454994

Dr. Shobhanjana Kalita, Assistant Professor, Tezpur University

She did her B. Tech in Computer science and Engineering, M.Tech in Information technology from the Computer science and Engineering Departmennt of Tezpur Central University, Assam. She did her Phd in Knowledge representation and reasoning under the guidance of Prof. Shyamanta Mani Hazarika who is currently a professor of mechanical engineering at IIT Guwahati. Madam is working as Assistant Professor in Computer science and Engineering Department at Tezpur Central University Since 2015.

She works in the field of Artificial Intelligence specifically in Knowledge representation and reasoning.

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1.5 About the Sponsoring Agency

Rajiv Gandhi University (Formerly Arunachal University) is the Premier institution for Higher education in the state of Arunachal Pradesh. The University got academic recognition under section 2(f) from the University Grant Commission on 28th March 1985 and started functioning from 1st April 1985. It got financial recognition under section 12-B of the UGC on 25th March, 1994. Since then Rajiv Gandhi University has carved a niche for itself in the educational scenario of the country following its selection as a university with potential for excellence by a high level expert committee of University Grant Commission among universities in India. The university was converted into a central university with effect from 9th April 2007 as per the notification of Ministry of Human Resource Development (MHRD), Government of India. The University is located at the top of Rono hills on a picturesque tableland of 302 acres overlooking the rive Dikrong. It is 6.5 Kms away from the national highway 52-A and 25 kms way from Itanagar , the state capital.

1.6 Budget and Expenditures

Proposed Budget

Sr. No.	Particulars	Estimated Expense
1	TA and DA for the Experts from Outside	50,000/-
2	Accommodation for Experts and outside participants (Lodging & Fooding)	12,000/-
3	Lunch/Dinner/Tea/Snacks	55,000/-
4	Stationary items including Kits for Participants	10,000/-
5	Banner, poster and invitation	10,000/-
6	Memento, certificate and gift for Felicitation of experts and dignitary etc.	10,000/-
7	Miscellaneous (local travel etc.)	10,000/-
Total		**1,57,000/-** **(One Lac fifty-seven thousand only)**

Expenditure on Resource Persons for TA, DA, Honorarium and Accommodation

Sr. No.	Details of the Resource Persons	Total Amount paid	Remarks
1	Dr. Aheibam Dinamani Singh, NIT Manipur	16162/-	TA, DA and Honorarium
2	Dr. Sanasam Ranbir Singh, IIT Guwahahti	6890/-	TA, DA and Honorarium
3	Dr. Shobhanjana kalita, Tezpur University	12920/-	TA, DA and Honorarium
4	Prof. Kanarpa Kumar Sarma, Gauhati University	7420/-	TA, DA and Honorarium
5	Accommodation At NERIST Guest house	8000/-	Accommodation
Total Amount Paid		**51,392/-** **(Fifty-One Thousand Three hundred ninety-Two)**	

Expenditure on Miscellaneous Items other than TA/DA/Honorarium/Accommodation

Sr. No.	Items	Total Amount Paid	Remarks, if Any
1	Petrol	2000/-	Arunachal Petroleum Depot, Nrjuli
2	Taxi Hired @ 2000/- per day for NERIST to RGU Movements	4000/-	Licha Taxi
3	Kaju Barfi	300/-	Nana's restaurant, Nirjuli
4	Oil, Candle, Diya Suta	70/-	M/S K. D. Store, Doimukh
5	Stationary items	10340/-	M/S T. K. Enterprises, Doimukh
6	Cookies	200/-	TNT Shilpa Bakery
7	Water bottle (Cello)	660/-	M/S Pang Enterprises, Nirjuli
8	Memento (10 pcs.)	8700/-	M/S Growmore trophy house, Naharlagun
9	Pomo Muflar (20 pcs.)	2000/-	OJU Craft Centre, Naharlagun
10	Refreshments, High tea (02 times), Lunch for 05/03/2020	32400/-	Durga Hotel, Nirjuli
11	High Tea (02 times) and Lunch for 06/03/2020	24900/-	Durga Hotel, Nirjuli
12	Miscellaneous items	1540/-	M/S VIVCON, Doimukh
13	Banners, Certificates, pamphlets, Memento Pasting Charge	14320/-	M/S Growmore Media house
14	Flower Pot and Plants @ 8pcs. Each	4000/-	M/S A. C. Nurssary, Naharlagun
Total Amount Paid		**105430/-** **(One lakh five thousand four hundred thirty Only)**	

Total Expenditure = 156822/- (One lakh fifty-six thousand eight hundred twenty-two only)

Part: 2 Session Wise Details

2.1 Inaugural Session

The Inaugural session of the programme was graced by Hon'ble Chief Guest, Prof. H. S. Yadav, Director NERIST, Pro Vice Chancellor, Prof. Amitava Mitra, Rajiv Gandhi University, Dean of the Faculty of Engineering and Technology, Prof. Pradip Kumar Kalita, Head (i/c), Department of Computer Sciecne and Engineering,Dr. Marpe Sora, Head(i/c), Department of Electronics and Communication Engineering, Mr. Jagdeep Rahul and Prof. Utpal Bhattachargee, Professor, Department of Comuputer Science and Engineering. Resource Persons for Technical sessions of the Day-1 and Day-2 , Dr. Aheibam Dlnamani Singh, Associate Professor, NIT, Manipur and Dr. Sanasam Ranbir Singh, Associate Professor, IIT Guwahati and Prof. Kandarpa Kumar Sarma, Professor, Gauhati University were also present for Gracing inaugural Session of the Programme.

Lighting of Ceremonial lamp by Chief Guest, Prof. H. S. Yadav, Director, NERIST(Left) and Pro Vice Chancellor, Prof. A. Mitra, RGU (Right)

The Faculty members from different departments of Rajiv Gandhi University and NERIST were present. The Research Scholars from RGU & NERIST, Students of M.Tech(ECE), M.Tech(CSE), MCA and BCA and non-teaching staffs of ECE and CSE were also present.

Felicitation of Dignitaries (Left) and Welcome address by Mr. Kurmendra, Convener (Right)

The inaugural session was started by Lighting of Ceremonial Lamp by Hon'ble Chief Guest, Prof. H. S. Yadav, Director, NERIST, Pro Vice Chancellor, Prof. Amitava Mitra, Rajiv Gandhi University, Dean of the Faculty of Engineering and

Technology, Prof. Pradip Kumar Kalita, Head (i/c), Department of Computer Sciecne and Engineering, Dr. Marpe Sora, Head(i/c) and the Convener.

The Felicitation of the Chief Guest, Pro Vice Chancellor, Dean of Faculty of Engineering and Technology, Head of the departments of ECE and CSE, Resource persons from different institutes was gracefully done by Faculty members of both the departments.

Convener of the Programme, Mr. Kurmendra , welcomed the Chief Guest and other dignitaries sitting on the dais and off the dais along with participants, non-teaching staffs and resource person for media coverage from department of Mass Communication.

Dr. Marpe Sora, Head (i/c), Department of Computer Science and Engineering, Spoke on introductory notes of the seminar and gave a brief idea about technical sessions.

Dr. Sanasam Ranbir Singh, Resource person for technical session -2, Spoke that Artificial Intelligence is very important for solving problems associated with any disciplines there is no area left which cannot use the Artificial Intelligence and Machine learning for providing solutions.

Dr. Sanasam Ranbir Singh, IIT Guwahahti, Resource person for technical session -2(Left) and Prof. Pradip Kumar Kalita, Dean, Faculty of Engineering and Technology(Right) addressing participants.

Prof. Pradip Kumar Kalita, Dean, Faculty of Engineering and Technology, said that the theme of the seminar can be considered so carefully chosen theme by the Organising team. He discussed various aspects of Artificial intelligence and Machine learning and its application around the world.

Pro Vice Chancellor, Prof. Amitava Mitra, said that the technology plays a very important role in the development and growth of economy of any country. He gave examples of Germany and China countries while stating that science and technology can only bring the growing economy and development in a country. He said one of the latest technologies is the artificial intelligence in Computer Science and Electronic discipline. He concluded his speech by stating that this seminar will be helpful for faculty members and participants and they will come up with innovative ideas and projects.

Chief Guest, Prof. H. S. Yadav, Director, NERIST(Left) and Pro Vice Chancellor, Prof. A. Mitra, RGU (Right) addressing participants.

Hon'ble Chief Guest, Prof. H. S. yadav, Director, NERIST said that Artificial Intelligence is a technique where humans guide and programme the machines to behave in a intelligent way. While speaking about the technological development made by European Countries, United Nations or by other countries of the world are for their own nation growth. He said that technology should be made for the peoples of remote areas who think that we as, a scientist, a professor, an engineer will make technology available for them. He encouraged youths participating in the seminar to think about using Artificial Intelligence systems in the field of Agriculture and Choose agriculture as a career for research and job.

Mr. Bhaskar Jyoti Chutia, Co-convener, while presenting vote of thanks(Left) and National Anthem by participants and delegates (Right).

Co-convener of the programme, Mr. Bhaskar Jyoti Chutia, presented vote of thanks to all the dignitaries for gracing the inaugural session and participants for attending the inaugural session.

The Inaugural session was ended by National Anthem.

2.2 Technical Sessions

The technical session –I "Introduction to Artificial Intelligence" was delivered by resource person Dr. Aheibam Dinamani Singh, Associate Professor, Department of Electronics and Communication Engineering, NIT, Manipur, India. He discussed Artificial intelligence and about the domains where AI based technological devices being used.

Dr. Aheibam Dinamani Singh, Resource person for Technical Session-1 delivering his lecture.

Technical Session- II "Machine learning on Graph- Network Embedding" was taken by Dr. Sanasam Ranbir Singh, Associate Professor, Department of Computer Science and Engineering, Indian Institute of Technology (IIT) Guwahati. His discussions were involved on to the use of Artificial intelligence and Machine Learning on social platforms and discussed algorithms which can be used to make graphs for analysis of data collected from these social platforms.

Dr. Sanasam Ranbir Singh, Resource person for Technical Session-II delivering his lecture.

Technical Session-III "Searching for Intelligent Solutions" was delivered by Dr. Shobhanjana Kalita, Assitant Professor, Department of Computer Science and Engineering, Tezpur University, Assam. Her speech was focused on developing intelligent algorithms for solving real time problems using Artificial intelligence techniques. The creation and application of the intelligent algorithm for Computer and machines can be developed by human intelligence techniques.

Dr. Shobhanjana Kalita, Resource person for Technical Session-III delivering his lecture.

Technical Session-IV "Building Deep learning Networks" was delivered by Prof. Kandarpa Kumar Sarma, Professor, Department of Electronics and Coomunication Engineering, Gauhati University, Guwahati. His talk was based on building up leaning networks for machines using Artificial intelligence and Machine learning. He enumerated various concepts such as Mathematical preliminaries for neural networks, ANN linkage to machine learning, Convolutional neural networks and applications of artificial neural networks.

Prof. Kandarpa Kumar Sarma, Resource person for Technical Session-IV delivering his lecture.

2.3 Valedictory Session

Valedictory session of two days programme was started by felicitating the dignitaries on the dais: Prof. Pradip Kumar Kalita, Dean, faculty of Engineering and technology, Prof. Utpal Bhattachargee, Department of CSE, Prof. Kanarpa Kumar Sarma, Resource person and Professor, Gauhati University, Mr. Jagdeep Rahul ,Head(i/c), Department of ECE.

Mr. Jagdeep Rahul (Head(i/c), ECE), Prof. K. K. Sarmav (Resource Person), Prof. P. K. Kalita (Dean), Prof. Utpal Bhattachargee and Kurmendra (Convener).

In his valedictory speech convener, Mr. Kurmendra spoke about purpose of conducting seminar is to get ready with the Artificial intelligence technologies and use them for betterment of life in Arunachal Pradesh and India as whole.

In his speech co-convener, Mr. Bhaskar Jyoti Chutia spoke that Artificial intelligence is making contribution in everyone's life for betterment and wellness of society; it is need of the hour to adopt AI and Machine learning.

Dean, Faculy of Engineering and Technology, Prof. Pradip Kumar Kalita congratulated convener and his team for successfully organizing a seminar on the topic which is most relevant for today's need.

Professor Utpal Bhattacharjee of Computer science and Engineering said that a smart society needs intelligence systems which can only be achieved by application of Artificial Intelligence and Machine Learning.

Invited speaker, Professor Kandarpa Kumar Sarma, Gauhati University said these kinds of seminars should be arranged to benefit the students and society and congratulated members for grand success of the seminar.

After Valedictory speeches, certificate of Appreciation to the organizing team and certificate of participation were given to all the participants present during valedictory session including faculty members, scholars and students of M.Tech, MCA and BCA.

Mr. Jagdeep Rahul, HoD, Department of Electronics and Communication concluded the programme by mentioning the efforts made by each one of the organizing members including faculties and students, Guests and participants from RGU and outside.


Prof. P. K. Kalita (Dean) giving certificate to Faculty members

Prof. Utpal Bhattachargee giving certificate to the M.Tech (ECE) students

Prof. K. K. Sarma (Resource Person) giving certificate to the M.Tech (CSE) students

Part: 3 Outcome of the Programme

Learning Outcomes:

The Participants were introduced to Artificial Intelligence and Computer vision where they learned basics aspects of Artificial Intelligences and its applications.

The Participants were also exposed to Network Embedding concepts using Machine Learning where they learned about various encoding and decoding techniques on Social Networking platforms using Machine learning approach. They are also provided with key points for making solutions of problems in a intelligent way using Artificial Networks and beside this the participants learned about how to build up deep learning networks for development of AI systems.

The other Outcomes of this programme are:

After attending this seminar, faculties, Research scholars and Students have been equipped with a strong basics and innovative ideas in the domain of Artificial Intelligence and Machine learning which will help Faculties to carry out research in AI and its sub field. Research Scholars and Master degree students will be able to take projects in AI and ML.

The Department of Electronics & Communication Engineering and Department of Computer Science & Engineering will come up with new Certificate Course in AI and ML in future for M.Tech and MCA students.

Both departments are also thinking of bringing out a new subject on Artificial Intelligence and Machine learning for their students.

Dr. Sanasam Ranbir Singh (Resource Person for Technical Session -2), IIT Guwahati have suggested to send a few of our students for doing internship in Artificial Intelligence and Machine Learning at IIT Guwahati under his mentorship.

ANNEXURE-I
Inaugural Session and Technical Session Details

Inaugural Session (Day-1) 05.03.2020 (Thursday)	Technical Session (Day-1) 05.03.2020 (Thursday) (Day-2) 06.03.2020 (Friday)
(09:00 A.M.- 10:00 A.M.) Arrival of Delegates and Registration (10:00 A.M.- 10:05 A.M.) Welcome of the dignitaries on to the dais (10:05 A.M.- 10:10 A.M.) Lighting of Ceremonial lamp (10:10 A.M.- 10:20 A.M.) Felicitation of Dignitaries (10:20 A.M.- 10:30 A.M.) Welcome Address by Convenor, Mr. Kurmendra (10:30 A.M.- 10:40 A.M.) Introduction of the Seminar by Dr. Marpe Sora, HoD(i/c) CSE (10:40 A.M.- 10:50 A.M.) Address by Dean, Prof. P. K. Kalita Faculty of Engineering and Technology (10:50 A.M.- 11:00 A.M.) Address by Registrar (i/c), Prof. Tomo Riba, (11:00 A.M.- 11:10 A.M.) Address by Chief Guest Prof. H. S. Yadav, Director, NERIST, Nirjuli (11:10 A.M.- 11:20 A.M.) Address by Prof. Amitava Mitra, Pro-Vice Chancellor, Rajiv Gandhi University (11:20 A.M.- 11:25 A.M.) Vote of Thanks (11:25 A.M.- 11:30 A.M.) National Anthem (11:30 A.M. – 11:35 A.M.) High Tea Break	Day-1, 11:35 A.M. – 01:15 P.M. Technical Session – 1 By Dr. Aheibam Dinamani Singh, Associate Professor, NIT , Manipur on "Artificial Intelligence and Vehicle Detection" Day-1, 02:00 P.M. – 04:00 P.M. Technical Session-2 By Dr. Sanasam Ranbir Singh, Associate Professor, IIT Guwahati on "Application of Machine learning on Graph" Day-2 , 10:00 A.M. – 12:00 P.M. Technical Session-3 By Dr. Shobhanjana Kalita, Assistant Professor, Tezpur University on "Searching for Intelligent Solutions on Artificial Intelligence" Day-2 , 12:20 P.M. – 01:20 P.M. & 02:00 P.M.- 03:00 P.M. Technical Session- 4 By Prof. Kandarpa Kumar Sarma, Professor, Gauhati University on "Building Blocks of Deep Neural Networks"

ANNEXURE-II (LIST OF PARTICIPANTS)

Sl.No	Name	Category	Institution
1	Utpal Bhattacharjee	Faculty	RGU
2	Marpe Sora	Faculty	RGU
3	Satish Kumar Das	Faculty	RGU
4	Firos A	Faculty	RGU
5	Sikdar Md. Sultan Askari	Faculty	RGU
6	Bhaskar Jyoti Chutia	Faculty	RGU
7	Bomken Kamdak Bam	Faculty	RGU
8	Jagdeep Rahul	Faculty	RGU
9	Maibam Sanju Meetei	Faculty	RGU
10	Champa Tanga	Faculty	RGU
11	Kurmendra	Faculty	RGU
12	Jowa Yangchin	Faculty	RGU
13	Aditya R Pillai	Faculty	RGU
14	Bornali Baruah	Faculty	RGU
15	Phemai Wangsu	Faculty	RGU
16	Roshan Adhikari	Faculty	RGU
17	Alok Kumar	Faculty	RGU
18	Ajit Kr. Singh Yadav	Faculty	NERIST
19	Ravi Ranjan Kumar	Faculty	RGU
20	Gom Taye	Research Scholar	NIT, Yupia
21	Mrinal Jyoti Sarma	Research Scholar	RGU
22	Tamchi Yani	Research Scholar	RGU
23	Lobsang Darge	Research Scholar	RGU
24	Lakshipriya Gogoi	Research Scholar	NERIST
25	Hage Nomo	MTech(CSE) 4th	RGU
26	Radhe Tamu	MTech(CSE) 4th	RGU
27	Tanmoy Protim Buraghohain	MTech(CSE) 4th	RGU
28	Mintu Das	MTech(CSE) 2nd	RGU
29	Yaagam Bogo	MTech(CSE) 2nd	RGU
30	Partha Protim Saikia	MTech(CSE) 2nd	RGU
31	Simanta Saikia	MTech(CSE) 2nd	RGU
32	Ome Moyong	MTech(ECE) 4th	RGU
33	Tana Bapu	MTech(ECE) 4th	RGU
34	Bikash Chetry	MTech(ECE) 4th	RGU
35	Chaw	MTech(ECE) 4th	RGU
36	Nyapu	MTech(ECE) 2nd	RGU
37	Rakesh Sharma	MTech(ECE) 2nd	RGU
38	Bhabesh Kumar Das	BCA 6th	RGU
39	Bharti Mishra	BCA 6th	RGU
40	Lapsang Lama	BCA 6th	RGU
41	Chow Chandawon Mannow	BCA 6th	RGU
42	Mimo Gibi	BCA 6th	RGU
43	Pawan Kumar	BCA 6th	RGU
44	Priyanka Yadav	BCA 6th	RGU
45	Sujit Mondol	BCA 6th	RGU

46	Sumit Kumar	BCA 6th	RGU
47	Tage Bambi	BCA 6th	RGU
48	Arup Basumatary	BCA 4th	RGU
49	Bivash Singh	BCA 4th	RGU
50	Amha V Richa	BCA 4th	RGU
51	Nabam Rikum	BCA 4th	RGU
52	Nandita Das	BCA 4th	RGU
53	Tari Nako	BCA 4th	RGU
54	Oyimang Tatin	BCA 4th	RGU
55	Saurav Singh	BCA 4th	RGU
56	Kago Moda	BCA 4th	RGU
57	Bamin Tamer	BCA 4th	RGU
58	Atul Pachani	MCA 4th	RGU
59	Bego Royi	MCA 4th	RGU
60	Boikuntha Bharali	MCA 4th	RGU
61	Dikruk Raji	MCA 4th	RGU
62	Dipankar Kakoti	MCA 4th	RGU
63	Manjil Deuri	MCA 4th	RGU
64	Manuranjan Chutia	MCA 4th	RGU
65	Md Shahil Ahmed	MCA 4th	RGU
66	Mukunda Madhab Bora	MCA 4th	RGU
67	Nenem Talom	MCA 4th	RGU
68	Pranab Bora	MCA 4th	RGU
69	Pulak Sarmah	MCA 4th	RGU
70	Tsering Dhundop	MCA 4th	RGU
71	Kingshuk Sonowal	MCA 2nd	RGU
72	Payel Sarmah	MCA 2nd	RGU
73	Bandana Newar	MCA 2nd	RGU
74	Tage Tamin	MCA 2nd	RGU
75	Bishal Sarma	MCA 2nd	RGU
76	Chow Vishal Longchat	MCA 2nd	RGU
77	Bamin Tale	MCA 2nd	RGU
78	Chow Cheyaseng Khen	MCA 2nd	RGU
79	Nisha Bharti Sah	MCA 2nd	RGU
80	Sirnajib Saha	MCA 2nd	RGU
81	Gyamar Guma	MCA 2nd	RGU
82	Julie Doley	MCA 2nd	RGU

ANNEXURE-III (PHOTOGRAPHS)


A Two Days Seminar
On
Artificial Intelligence and Machine Learning: An application Prospective


A Two Days Seminar


A Two Days Seminar
ON
Artificial Intelligence and Machine
Learning: An application Prospective
(5th March, 2020- 6th March, 2020)


Dept. of
E.C.E
RGU
PeopleLink
Podium

ANNEXURE-IV (MEDIA COVERAGE)

Day-1 Media Coverage	
https://arunachaltimes.in/index.php/2020/03/06/seminar-on-ai-underway-at-rgu/	**The Arunachal TImes**
http://echoofarunachal.in/news_details.php?nid=5874	**Eco of Arunachal**
https://thedawnlitpost.com/seminar-on-ai-and-machine-learning-begins/	**Dawnlit Post**
Day-2 Media Coverage	
https://arunachal24.in/seminar-on-artificial-intelligence-and-machine-learning-an-application-prospective-concludes-in-rgu/	**Arunachal24.in**
https://arunachaltimes.in/index.php/2020/03/07/rgu-seminar-on-ai-concludes/	**Arunachal Times**
https://aidevelopmenthub.com/seminar-on-artificial-intelligence-and-machine-learning-an-application-prospective-concludes-in-rgu/	**AI Development Hub**
http://easternsentinel.in/news/state/rgus-ai-ml-seminar-concludes.html	**Eastern Sentinel**
	Arunachal Front
https://arunachalobserver.org/2020/03/07/artificial-intelligence-technologies-improves-life/	**Arunachal Observer**
http://www.thearunachalpioneer.com/Arunachal-Pradesh/Seminars-on-AI-challenges-for-indigenous-cultures-conclude/11/5683/f/	**Arunachal Poineer**
https://thedawnlitpost.com/seminar-on-ai-machine-learning-concludes/	**The Dawnlit Post**

DAY-1 " 05/03/2020

THE DAWNLIT POST
Itanagar, Arunachal Pradesh | Friday, March 06, 2020
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Seminar on AI and machine learning begins

RONO HILLS, Mar 5: A two-day seminar on Artificial Intelligence (AI) and machine learning began at Rajiv Gandhi University (RGU) here today.

Addressing students and faculties, NERIST director Prof HS Yadav laid emphasis on the use of AI in agriculture.

He advised the students to choose agriculture as a career option.

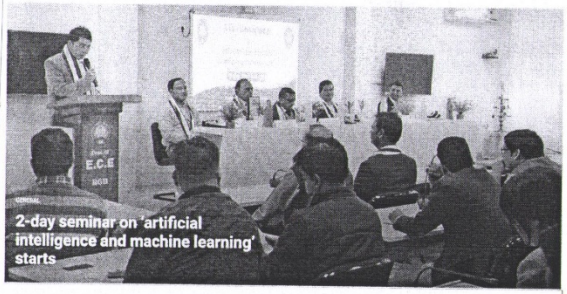
RGU pro-vice-chancellor Prof A Mitra spoke on the importance of AI and how it can be used to make India one of the best technologically advanced countries in the world.

IIT Guwahati Department of CSE Dr Sanansam Ranbir Singh, an invited speaker, [illegible] Among others, Faculty of Engineering and Technology dean Prof Pradip Kumar Kalita, CSE head-in-charge Dr Marpe Sora, Department of ECE assistant professor Champa Tanya, convenor of the programme, Kumsi and co-convenor Bhaskar Jyoti Chutia also spoke.

Echo of Arunachal

First Newspaper From The State

Established 20th Feb 1988



2-day seminar on 'artificial intelligence and machine learning' starts

RONO HILLS, Mar 5: A two-day seminar on 'artificial intelligence and machine learning' started at the Dept of Computer Science and Engineering, Rajiv Gandhi University today.

Speaking as chief guest on the occasion, Director NERIST Prof H S Yadav emphasized on use of artificial intelligence in agriculture and called upon the participating youths to choose agriculture as a career option.

RGU Pro-VC Prof Amitava Mitra dwelling on the importance of artificial intelligence spoke on how it can be used to make India one of the best technological countries in the word.

Dr Sanansam Ranbir Singh, Dept of CSE (IIT Guwahati) gave a brief on artificial intelligence and machine learning.

Prof P K Kalita, Dean, faculty of Engineering & Technology briefed the participants about technology related to artificial intelligence.

Dr Marpe Sora, head in-charge, CSE shed light on different aspects of artificial intelligence.

Seminar on AI underway at RGU

RONO HILLS, Mar 5: A two-day seminar on 'artificial intelligence (AI) and machine learning' got underway at the computer science & engineering department of Rajiv Gandhi University (RGU) here on 5 March.

Addressing the inaugural session, NERIST Director, Professor HS Yadav, emphasized on the use of AI in agriculture, and advised the young participants to "choose agriculture as a career option."

RGU Pro-Vice-Chancellor, Prof A Mitra, spoke on "the importance of AI and how AI can be used to make India one of the best technological countries in the world."

Dr Sanansam Ranbir Singh from the Guwahati IIT's CSE department presented a brief on AI and machine learning.

Engineering & Technology Dean, Prof Pradip Kumar Kalita, dwelt on technology related to AI, and CSE Head (in-charge), Dr Marpe Sora, enumerated different aspects of AI.

register any win. GMSC will face table Bamang Taji FC in the sec- of Qualifier 1 in the final.

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Page 2 Eastern sentinel / ITANAGAR / SATURDAY, MARCH 7, 2020 STATE/NE/NATIONAL

Persuasion efforts

RGU's AI & ML seminar concludes

RONO HILLS, Mar 6: The two-day seminar on Artificial Intelligence(AI) and Machine Learning(ML) organized by RGU's Department of Electronics & Communication and Department of Computer Science & Engineering concluded here on Friday.

In his valedictory speech, Convener Kurmendra said the purpose of the seminar was to get accustomed with AI technologies and use them for betterment of life in Arunachal Pradesh and India as a whole. Co-convener Bhaskar Jyoti Chutia opined that need of the hour is to adopt AI and ML.

Dean, Faculty of Engineering and Technology Professor Pradip Kumar Kalita congratulated the Convener and his team for successfully organizing the seminar. Professor Utpal Bhattacharjee of Computer Science & Engineering Department said a smart society needs intelligence systems which can only be achieved by application of AI & ML. Invited speaker, Professor Kandarpa Kumar Sarma from Guwahati University underscored the need of these seminars to benefit the students and society.

HoD, Department of Electronics and & Communication Jagdeep Rahul commended the efforts made by all stakeholders in making the seminar successful. RGU PR

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SATURDAY, MARCH 7, 2020

enough measures to win the confidence of the people.

RGU seminar on AI concludes

RONO HILLS, Mar 6: The two-day seminar on 'artificial intelligence (AI) and machine learning', organized jointly by Rajiv Gandhi University's (RGU) electronics & communication and computer science & engineering departments, concluded here on Friday.

Addressing the valedictory function, the programme's convenor, Kurmendra, spoke about using AI technology to better the lives of the people of the state and the country, while co-convener Bhaskar Jyoti Chutia underscored the contribution of AI in making life easier and said "it is the need of the hour to adopt AI and machine learning."

Engineering & Technology Dean, Prof Pradip Kumar Kalita, stressed on the relevance of the topic, and Computer Science & Engineering Professor Utpal Bhattacharjee said "a smart society needs intelligence systems which can only be achieved by application of artificial intelligence and machine learning."

Gauhati University Professor Kandarpa Kumar Sarma and RGU's Electronics & Communication HoD, Jagdeep Rahul, also spoke.

AI Development Hub

AI Development: Trends and News

Home / Seminar on Artificial intelligence and Machine Learning: An Application Prospective concludes in RGU

AI News

Seminar on Artificial intelligence and Machine Learning: An Application Prospective concludes in RGU

A two days seminar on Synthetic intelligence and Machine Studying organized by Division of Electronics and communication together with division of laptop science and engineering, Rajiv Gandhi college (RGU), concluded right here on Friday.

In his valedictory speech convener, Mr. Kurmendra spoke about objective of conducting seminar is to prepare with the Synthetic intelligence applied sciences and use them for betterment of life in Arunachal Pradesh and India as entire.

In his speech co-convener, Mr. Bhaskar Jyoti Chutia spoke that Synthetic intelligence is making contribution in everybody's life for betterment and wellness of society; It's want of the hour to undertake AI and Machine studying.

Dean, Faculty of Engineering and Know-how, Prof. Pradip Kumar Kalita congratulated convener and his crew for efficiently organizing a seminar on the subject which is most related for at the moment.

Professor Utpal Bhattacharjee of Laptop science and Engineering stated that a sensible society want intelligence techniques which may solely be achieved by utility of Artificial Intelligence and Machine Studying.

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www.thearunachalpioneer.com
Freedom of Expression Redefined
Vol. VIII No. 133 RNI No. ARPENG/2012/46674 SATURDAY, MARCH 07, 2020 Postal Regn No. AP/054/2013-2015 ₹ 3.0

Seminars on AI, challenges for indigenous cultures conclude

RONO HILLS, Mar 06: The two-day seminar on artificial intelligence (AI) and machine-learning organised by the department of electronics and communication along with the department of computer science and engineering of Rajiv Gandhi University concluded here on Friday.

In his valedictory speech, Convener Kurmendra said the purpose of conducting the seminar was to get acquainted with the artificial intelligence technologies and use them for betterment of life in Arunachal Pradesh and India as whole.

Co-convener Bhaskar Jyoti Chutia said artificial intelligence is making a contribution in everyone's life for the wellness of society and that the need of the hour is to adopt AI and machine-learning.

Dean, Faculty of Engineering and Technology, Pradip Kumar Kalita congratulated Kurmendra and his team for successfully organising a seminar on the "most relevant" topic today.

Professor Utpal Bhattacharjee of CSE said that a smart society needs intelligence systems which can only be achieved by application of AI and machine-learning.

Invited speaker, Professor Kandarpa Kumar Sarma of Gauhati University said such seminars should be arranged to benefit the students and society.

P-3

Seminar on artificial intelligence and machine learning

RONO HILLS, Mar 06: A two days seminar on Artificial intelligence and Machine Learning organized by Department of Electronics and Communication along with department of computer science and engineering, Rajiv Gandhi University, concluded here on Friday.

In his valedictory speech, convener Kurmendra said the purpose of conducting seminar was to get ready with the Artificial intelligence technologies and use them for betterment and wellness of society; it is need of the hour to adopt AI and Machine learning.

Dean, Faculty of Engineering and Technology, Pradip Kumar Kalita congratulated convener and his team for successfully organizing a seminar on the topic which is most relevant today.

Professor Utpal Bhattacharjee of Computer Science and Engineering said that a smart society need intelligence systems which can only be achieved by the application of AI and machine learning.

Invited speaker, Professor Kandarpa Kumar Sarma, Gauhati University said these kind of seminars should be arranged to benefit the students and society and congratulated members for grand success of the seminar.

Jagdeep Rahul, HoD, Department of Electronics and Communication concluded the programme by mentioning the efforts made by each one of the organizing members including faculties and students. Guests and participants from RGU and outside

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Seminar on AI & machine learning concludes

RONO HILL, Mar 6: A two-day seminar on artificial intelligence and machine learning organized by the department of Electronics and Communication along with the department of Computer Science and Engineering, Rajiv Gandhi University, concluded here on Friday.

In his valedictory speech, convener Kurmendra spoke about purpose of conducting the seminar was to get ready with the artificial intelligence technologies and use them for the betterment of life in Arunachal Pradesh and India as a whole while co-convener, Bhaskar Jyoti Chutia said, "artificial intelligence is making a contribution in everyone's life for betterment and wellness of society; it is need of the hour to adopt AI and machine learning".

Professor Utpal Bhattacharjee of Computer Science and Engineering said that a smart society need intelligence systems which can only be achieved by the application of AI and machine learning.

Invited speaker, Professor Kandarpa Kumar Sarma, Gauhati University said such a seminar should be arranged to benefit the students and society.

Seminar on consumer rights held

ARUNACHAL OBSERVER

Artificial intelligence technologies improves life'

March 7, 2020

RONO HILLS, Mar 06: Stressing on importance of artificial intelligence technologies, Guwahati University Prof Kandarpa Kumar Sarma said that their use would help lead better life, including in Arunachal Pradesh.

He was delivering valedictory speech to a two-day seminar on 'Artificial intelligence and machine learning', organized by electronics and communication and computer science & engineering departments of Rajiv Gandhi university here on Friday.

Artificial intelligence is contribution in everyone's life for betterment for wellness of the society for which it is need of the hour to adopt it, said co-convener Bhaskar Jyoti Chutia, adding spoke that;.

congratulated convener and his team for successfully organizing a seminar on the topic which is most relevant for today.

Justifying the theme, computer science and engineering Prof Utpal Bhattacharjee said that any smart society needs intelligence systems which can only be achieved by applying the above.

Dean (ET) Prof. Pradip Kumar Kalita and electronics HoD Jagdeep Rahul also spoke, according to a RGU release.

Arunachal24.in

Uncategorized

Seminar on Artificial intelligence and Machine Learning: An Application Prospective concludes in RGU

March 7, 2020 0 Less than a minute

Itanagar

A two days seminar on Artificial intelligence and Machine Learning organized by Department of Electronics and communication along with department of computer science and engineering, Rajiv Gandhi university (RGU), concluded here on Friday.

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Dean, Faculty of Engineering and Technology, Prof. Pradip Kumar Kalita congratulated convener and his team for successfully organizing a seminar on the topic which is most relevant for today.

Professor Utpal Bhattacharjee of Computer science and Engineering said that a smart society need intelligence systems which can only be achieved by application of Artificial Intelligence and Machine Learning.

Invited speaker, Professor Kandarpa Kumar Sarma, Gauhati University said these kind of seminars should be arranged to benefit the students and society and congratulated members for grand success of the seminar.

Mr. Jagdeep Rahul, HoD, Department of Electronics and Communication concluded the programme by mentioning the efforts made by each one of the organizing members including faculties and students. Guests and participants from RGU and outside.


कंप्यूटर विज्ञान एवं अभियांत्रिकी
राजीव गांधी विश्वविद्यालय
COMPUTER SCIENCE & ENGINEERING
RAJIV GANDHI UNIVERSITY
A Two Days Seminar
ON
Artificial Intelligence and Machine
Learning: An application Prospective