# CHIEF PATRON

Dr. P. Shyama Raju

Chancellor, REVA University

#### **PATRONS**

Dr. S. Y. Kulkarni

Vice-Chancellor, REVA University

Dr. M. Dhanamjaya

Registrar, REVA University

# **STEERING COMMITTEE**

Dr. Y. Ramalinga Reddy

Associate Dean and Director, School of Civil and ME, REVA University

# **RESOURCE PERSON**

Prof. Rajashekar S L

Assistant Professor, School of Civil, REVA University



### TARGET AUDIENCE

UG & PG students from academic Institutes

# **IMPORTANT DATES**

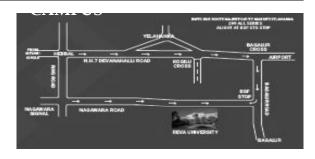
Last date for Registration: 10<sup>th</sup> February 2019

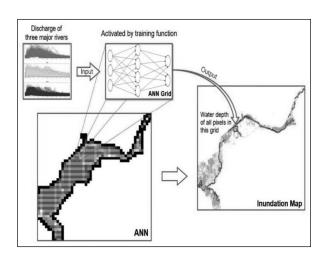
# WORKSHOP COORDINATOR

Prof. Sreenivasulu Reddy

Assistant Professor School of Civil Engg., REVA Univesity

# MAP TO REVA UNIVERSITY







#### ONE DAY WORKSHOP ON

Artificial Neural Network for forecasting and prediction of Flood

On 12th February, 2019



# **ORGANIZED BY**

SCHOOL OF CIVIL ENGINEERING REVA UNIVERSITY

**Rukmini Knowledge Park** Kattigenahalli, Yelahanka, Bengaluru - 560064 Phone: +91-80-6622 6622, Fax: +91-80-2847 8539

Rukmini Educational Charitable Trust

www.reva.edu.in

#### **REVA UNIVERSITY**

REVA University is established in Bengaluru, Karnataka State under the Government of Karnataka Act 80 of the year 2012 and notified in the Karnataka Gazette dated 7th Feb,2013. Located 14 kms away from the Kempegowda International Airport on the way to Bengaluru city, the University has a sprawling green campus spread over in 45 acres of land equipped with state-of the- art infrastructure and conducive environment for higher learning. The founders of REVA University, with missionary zeal, visionary outlook and philanthropic approach coupled with four decade long entrepreneurial leadership and a decade long experience are recognized, as leading educational venture through fastest developing higher education campuses. The REVA campus has well equipped laboratories, custom-built teaching facilities designed specifically to emulate the working conditions, fully airconditioned library and central computer center. The well planned sports facility for variety of sports activities, facilities for cultural programs and friendly campus lifestyle add to overall personality development of students. The campus also has residential facility for students, faculty and other staff.

Currently, the REVA University offers 18 PG programs 15 Degree programs in Engineering and Technology, Science, Commerce and Management, Architecture, Law and Humanities in addition to research degrees leading to M Phil and PhD in different disciplines. The University aims to offer many more PG and UG programs in Science, Arts, Commerce, Management Education and Engineering and Technology and other discipline in coming years.

#### ABOUT THE SCHOOL

The school of Civil Engineering is headed by highly experienced professor and is supported by well qualified faculty members. The School has the state-of-art class rooms and well equipped laboratories. It offers B.Tech and M.Tech programs in various specialized streams. The School also has research program leading to Doctoral degree.

The Curriculum of both graduate and post graduate degree programs have been designed to bridge the gap between industry - academia and hence they are industry application oriented. The B.Tech Programs aims to prepare human resources to play a leading role in the competitive construction field and excel in their endeavours. The Master Degree Programs focus on research and design in the core and Computer Aided Structural Engineering & Transportation Engineering & Management to Supplement and create a sustainable world and to enhance the global quality of life by adopting enhanced techniques of design and application. This is reflected in various core subjects offered within the program. Currently Civil Engineering teaching was limited planning, analysis, design and execution of different types of infrastructure like buildings, roads bridges and Dams. However, due to increase of technological sophistication and demand for higher living standards geared up by economic growth and concerns about environmental impact have changed the scope of civil engineering. The Challenges of today's civil Engineering infrastructure are much more complex and interdependencies between resources. Due to that The REVA UNIVERSITY would like to offer Civil Engineering programme to produce quality engineers who are effective and efficient engineers in problem solving and providing economical and sustainable infrastructural solutions

#### ABOUT THE WORKSHOP

Flooding leads to numerous hazards, with consequences including risk to human life, disturbance of transport and communication networks, damage to buildings and infrastructure, and the loss of agricultural crops. Therefore, prevention and protection policies are required that aim to reduce the vulnerability of people and public and private property. Many solutions for flood mitigation and prevention have been suggested however, a vast amount of data and knowledge are required about the causes and influencing factors of floods and their resulting damage.

#### **OBJECTIVES**

- To provide participants with a comprehensive understanding of Artificial Neural Networks and their applications in flood forecasting.
- 2. To introduce participants to relevant case studies and success stories where ANN has been effectively employed in flood prediction.
- To facilitate hands-on sessions for participants to gain practical experience in implementing ANN models for flood forecasting.
- To encourage collaboration and knowledge sharing among participants, fostering a network of experts in the field.

#### **OUTCOMES**

- Participants gained a thorough understanding of Artificial Neural Networks (ANN), including architecture, neuron functioning, and activation functions.
- Hands-on sessions equipped participants with practical skills in data preprocessing for flood forecasting, covering techniques like handling missing data and feature selection.
- The workshop facilitated networking among participants, fostering a community of experts in flood forecasting and encouraging collaborative discussions.
- The experimental results show that we are able to accurately predict flood with existing data set. This shows that ANN is a promising tool for prediction. As a future work, the system will be implemented with real datasets.



Title: Artificial Neural Network for forecasting and prediction of Flood

Date: 12<sup>th</sup> February 2019

Time: 9:30 AM to 1:30 PM

Venue: Seminar Hall, Sir M V Block

Organized By: School of Civil Engineering

Resource person: Dr. Rajashekhar S L

## **Description of Event:**

**Introduction:** The workshop on Artificial Neural Networks (ANN) for forecasting and prediction of floods was successfully conducted with the esteemed presence of an expert in the field. The workshop aimed at addressing the challenges in flood management by leveraging the power of ANN.

## **Workshop Objectives:**

- 1. To provide participants with a comprehensive understanding of Artificial Neural Networks and their applications in flood forecasting.
- 2. To introduce participants to relevant case studies and success stories where ANN has been effectively employed in flood prediction.
- 3. To facilitate hands-on sessions for participants to gain practical experience in implementing ANN models for flood forecasting.
- 4. To encourage collaboration and knowledge sharing among participants, fostering a network of experts in the field.

# **Sessions and Topics Covered:**

- 1. Introduction to Artificial Neural Networks (ANN): The workshop commenced with a warm welcome from the faculty, expressing gratitude to the expert for their expertise and valuable contribution. The expert delivered an insightful session, providing an overview of ANN and setting the stage for the workshop.
- 2. Data Preprocessing for Flood Forecasting: Participants were guided through data preprocessing techniques, ensuring the reliability of input data. Practical insights based on extensive experience in the field were shared.
- 3. Case Studies and Best Practices: The faculty presented relevant case studies, and insights were shared on selecting optimal models and parameter tuning, providing participants with valuable real-world perspectives.
- 4. Hands-On Implementation: Participants engaged in hands-on sessions with the guidance of experienced facilitators. The presence of the expert enriched the practical learning experience, and participants gained valuable insights from their expertise.
- 5. Challenges and Future Directions: The workshop concluded with a vote of thanks extended by the faculty, expressing gratitude to the expert, participants, and organizers. The faculty highlighted the significance of the knowledge shared and encouraged participants to apply the learned skills in their respective fields.



**Conclusion:** The workshop on Artificial Neural Networks for forecasting and prediction of floods successfully achieved its objectives. The presence of an expert significantly contributed to the knowledge enrichment of participants. The faculty welcomed and acknowledged participants, and a vote of thanks marked the end of the program, encouraging participants to apply the acquired skills in their practical endeavors.









# **Certificate of Participation**

# **School of Civil Engineering**

This is to certify that			
Mr. Venkatesh Wadki from School of Civil Engineering, RU			
has participated in the one day worksho	pp "Artificial Neural Network for forecasting and		
prediction of Flood" held on 12th Febru	arv. 2019.		

Director School of Civil Engineering REVA University



# **School of Civil Engineering**

# List of students and faculties attended workshop on Artificial Neural Network for forecasting and prediction of Flood

Date 12-02-2019

Sl. No.	SRN	Name of student
1	R16CV076	DODAGATTA SHIVARAJ
2	R16CV077	DUSHYANTH G S
3	R16CV078	G GOUTHAM
4	R16CV079	GAGAN G
5	R16CV080	GAGAN V
6	R16CV081	GAJULA MANITEJA
7	R16CV083	GIRISH GOWDA G V
8	R16CV086	GOVIND
9	R16CV087	HAREESH N
10	R16CV088	HARSHIL SHAILESH PAREKH
11	R16CV090	HARSHITHA C
12	R16CV091	HARSHITHA C
13	R16CV092	HARSHITHA REDDY R
14	R16CV095	HITHESH D SHETTIGAR
15	R16CV096	JAHNAVI R
16	R16CV097	JAIPAL M S
17	R16CV098	JEEVAN H NAIK
18	R16CV099	K P PARIKSHIT
19	R16CV100	KALIDAS GURAPPA NAGARAL
20	R16CV101	KARTHIK B
21	R16CV102	KARTHIK GOWDA R
22	R16CV103	KARTHIK KUMAR E
23	R16CV104	KARTHIKA M
24	R16CV105	KAVYA SASI
25	R16CV106	KEERTHAN B A
26	R16CV107	KEERTHANA V
27	R16CV108	KEERTHI D
28	R16CV109	KEERTHIKUMAR V R
29	R16CV111	KIRAN KUMAR H
30	R16CV112	KIRAN NINGANAGOUDAR
31	R16CV113	KIRAN PATIL
32	R16CV114	KIRAN R S
33	R16CV116	KRUDANTH H L
34	R16CV117	KRUPASHREE G M
35	R16CV118	KSHAMA V G
36	R16CV119	KUMAR
37	R16CV121	KUMUDA RAJ M N
38	R16CV122	LALAWMPULL RENTHLEI
39	R16CV123	LALCHHANDAMA
40	R16CV125	M AKHIB
41	R16CV126	M D NITHYAM NACHAPPA
42	R18CV801	AKASH
43	R18CV802	AKSHATA NAREGAL
44	R18CV803	ANISHA PATRO
45	R18CV804	ASHISH S SORTUR

46	R18CV805	ASMA NALGAR
47	R18CV806	BHAVUK PURBIA
48	R18CV807	CHAYAPATHI R
49	R18CV808	DARSHAN A BASAVANTAKAR
50	R18CV809	DARSHANA HL
51	R18CV810	ESHWAR
52	R18CV811	GOPALAPPA
53	R18CV812	GOWTHAM N
54	R18CV813	HANAMANTRAYA
55	R18CV814	HYDER AZIZ
56	R18CV815	JANU
57	R18CV816	KAVYASHREE B
58	R18CV818	MITHUN S G
59	R18CV819	MOHAMMADMUSTAFA M MIRJANAVAR
60	R18CV820	MOHAMMED DASTAGEER
61	R18CV821	MOHAMMED SAMEER
62	R18CV822	MOHAMMED YOUNUS D
63	R18CV823	MONISHA H K
64	R18CV824	NADEEM KHAN
65	R18CV825	NAGARJUNA V
66	R18CV826	NISCHITH B N
67	R18CV827	PRAJWAL V R
68	R18CV828	PRASANNAKUMAR G N
69	R18CV829	PRAVEEN KUMAR B S
70	R18CV830	PRUTHVI KIRAN R

Sl. No	Name of faculty
1	Mr.Bhojaraja M
2	Mr.Raveesh J
3	Ms.Challa Prathyusha
4	Mr.Chandra Prakash
5	Mr.Prashanth N
6	Mr.Sreenatha M
7	Mr Suresh B
8	Mr. Raghunandan Koppad
9	Mrs. Pushpa Lumina
10	Mr. Venkatesh wadki

