

Meeting Minutes on the project of Ongole cows

An online Google meet was held on 13-09-2023 as an initial start of the project on Ongole cows with the following members.

- 1) Mr. Jai Shankar - CEO - NEER Solutions
- 2) Mrs. P. Sarada - HOD (Mathematics & Statistics)
- 3) Mrs. P. Priyanka - Faculty in Statistics
- 4) Ms. T. Jaya Madhuri - Faculty in Zoology
- 5) Ms. N. Jaya sri - Student (BSc(MSCs))
- 6) Ms. M. Rishitha - Student(BSc(MSCs))
- 7) Ms. Amulya - Student(BSc(BZC))
- 8) Ms. Sweet - Student(BSc(BtZC))

The meeting was initiated by Shri A. Jai Shankar CEO NEER Solutions and introduction about the project was given by Ms. T. Jaya Madhuri and her team of 2 students from life sciences and Mrs. P. Priyanka introduced herself and about her team. It was discussed about the monitoring of the diseases of Ongole cows and the focus was

- 1) Lumpy skin diseases
- 2) Mastitis
- 3) Food and mouth disease

The students of MSCs were asked to prepare a power point presentation containing different stages of disease with pictures and life sciences students were asked to explore more data on differentiation, characteristics, diagnostics procedure, symptoms and how it can be monitored.

It was discussed that wherever veterinary part of the project is concerned the life sciences students are involved and for testing procedures computer science students are involved and also it was said that 1 MSCs and 1 Life science students are paired together to work on the project.

It was informed that the lab availability to be made from 8:00a.m to 6:00p.m to work on the project at least 2 hours per day before and after college hours. As a safe measure of students beyond the working hours a CC camera to be installed in the lab.

Regular monitoring of the project meeting will be held on every Wednesday and a field visit of students to be made once in a month and after every 45 days review of the project will

The meeting was concluded saying that this is the first data science project on cows for which the AMS students are getting the opportunity

Meeting Minutes on the Goa Ship Yard with CGDT and IIT Hyderabad

The meeting was held on 11-10-2023 at IIT-H with the following members.

- 1) Sri.D.Chakrapani IAS Rtd - Chairman - AMSASCW
- 2) Mr.Jai Shankar - CEO - NEER Solutions
- 3) Prof. B.S. Murthy – Director, IIT-H
- 4) Prof. P. Raja Lakshmi – Director, NMICPS Tihan, IIT-H
- 5) Prof. M.V. Pandu Ranga Rao – Dept of Computer Science & Engineering, IIT-H
- 6) Francis – DGM – Goa Ship Yard
- 7) Mr. Ambareesh – Director, Greycell Ltd, Bengaluru
- 8) Mr. Ajay – Director, strategy – Geo Lands Doctor
- 9) P. Sarada – Head Dept of Mathematics - AMSASCW
- 10) P.Priyanka – lecturer department of Statistics - AMSASCW
- 11) T.Jaya Madhuri - Lecturer, Dept of Zoology - AMSASCW
- 12) V.Sweety - Student - BtZC II year
- 13) M. Amulya – Student – BZC II year
- 14) Rishitha - Student - MSCs II year
- 15) Jaya Sree - Student - MSCs II year

The meeting started with the introduction of all the members to Goa Shipyard team by Mr Jaishankar from Neer Solutions presented A PPT about CGDT & GIS .Mr Francis Fernandez DGM Goa Shipyard explained about Goa Ship Yard and the challenges they are facing with present Perimeter security and how Artificial Intelligence is used to develop the Perimeter Security. MR Ambareesh , director Geo land doctor explained about the geographical layout of Goa Ship Yard and challenges faced due to poor Perimeter security and explained all the techniques they are using to develop the security. He concluded that by using AI techniques in the Perimeter security will increase the security levels in Goa Shipyard. At the Stage-I of the Project the following steps are followed-

- Define all requirements
- Providing user Interface
- Development of Software
- Procurement of the hardware and implementation

~~The meeting concluded by distribution of work among the following members.~~

- Design and Functional Validation by **CGDT & IIT-H**
- Hardware, Software and annual maintenance can be procured by sponsors
- Supplier of the solutions and commissioning work will be done by **IIT-H**
- Annual maintenance, Surveillance security, Safety feature and man power for AI will be looked after by **Prof.M.V.Panduranga Rao**
- Marketing will be done by **Goa Shipyard.**

After the meeting all the member of the meeting joined for opening of CGDT logo.

All the members of the meeting visited T-HAN to see the development AI in various aspects.

Dt:12-10-2023

Meeting Minutes on the SaciWATERS

The meeting was held on 12-10-2023 in the Board Room with the following members.

- 1)Mr.Jai Shankar - CEO - NEER Solutions
- 2)Dr. Jayanthi - Executive Director - SaciWATERS
- 3)Judith - Member - SaciWATERS
- 4) Sri.D.Chakrapani IAS Rtd - Chairman - AMSASCW
- 5) Dr.K.Karuna Devi - Academic Coordinator - AMSASCW
- 6)Dr.A. Pramila - Head Dept of Botany, IQAC Coordinator - AMSASCW
- 7) P.Sarada- Head Dept of Mathematics - AMSASCW
- 8) P.Sandhya Rani - Assistant Professor, Biotechnology - AMSASCW
- 9) P.Priyanka - Head Dept of Statistics - AMSASCW
- 10) T.Jaya Madhuri - Lecturer, Dept of Zoology - AMSASCW
- 11) V.Sweety - Student - BtZC II year
- 12) Rishitha - Student - MSCs II year
- 13) Jaya Sree - Student - MSCs II year

The meeting started with the introduction of the members. Dr.Jayanthi explained about the initiatives of South Asia Consortium for Interdisciplinary Water Resources Studies (SaciWATERS)

Dr Jayanthi said that It is a Non-profit organization, which is majorly involved in research and action to address complex and evolving global water-related challenges in the face of climate change. She said that their organisation is focusing to sensitise implementation of water as an Ecosystem and not for Civil works. They are not only focusing on water-related challenges but also Community Knowledge, Health and Gender issues. They are now associated with CGDT(Centre for Geospatial and Digital Twins) for Mangroove & Wetland Monitoring and Geographical Information system.

They will be giving 6 weeks training programme for 4 students who are already part of CGDT internship programme.

Chairman Shri.D.Chakrapani asked students to check the data of Major, Medium & Minor Irrigations, GIS system in Telangana.

The meeting concluded by discussing about the implementation of Certificate courses by SaciWATERS for students of AMSASCW.

Report of Telangana Veterinary University Visit

Centre for Geospatial and Digital Twins(CGDT) Andhra Mahila Sabha arts and Science college for women and P.V.N.R. Telangana Veterinary University together organized a brain storming session on "AI and Biotechnology Interventions in Addressing Diseases - LSD & FMD, Brucellosis, and Heat Identification." Oon November 20th, 2023, from 9:00 AM in P.V.N.R.T.V.U conference hall. The session was chaired by Vice chancellor, PVNRTVU. The following members were present

- 1.Sri Chakrapani. D, Retd. IAS, Chairman AMS Arts & Science College.
- 2.Jai Sankar, CEO, Neer Interactives, Hyderabad.
3. Registrar of PVNRTVU, Dean of PVNRTVU
4. Addressal of Director, Animal Husbandry,
5. Addressal of District Head – Ranga Reddy Animal Husbandry

The brainstorming session featured presentations on Lumpy skin disease(LSD), Foot and mouth disease(FMD),Brucellosis and Heat Identification (Estrous).

The following faculty and students of AMS have participated in the session

1. P.Saradha - Head, Dept of Mathematics
2. P.Priyanka - Faculty, Dept of statistics
3. T.Jaya Madhuri - Faculty, Dept of Zoology
4. P.Sandhya Rani - Faculty, Dept of Biotechnology
5. Amulya - BSc.BZC II year
- 6.V.Sweety - BSc.BtZC II year
7. Rishitha - BSc.MSCs II year
- 8.Jayasree - BSc.MSCs II year
9. Rishika - BSc.BtZC II year
- 10.Deepali - BSc.BtZC II year

The Students of AMS Ms.Deepali and Ms.Rishika gave a presentation on Brucellosis followed by Dr.Vamshi Krishna's detailed presentation on Brucellosis. Dr.Vamshi said that Brucellosis is a zoonotic disease and there is prevalence in various states of India. He also explained about the pathology of the disease and possibilities of early detection.

The next presentation was given by Dr Kalyani on lumpy skin disease and Foot & Mouth Disease(FMD). Dr.Kalyani had discussed briefly about Prevalence of LSD, Differential diagnosis

of LSD and how it can be misdiagnosed with skin diseases in Cows. She also said about the prediction of LSD Disease outbreak using Artificial Intelligence. Dr.Kalyani also given brief presentation on Foot & Mouth Disease(FMD). She discussed about the FMD virus and outbreaks of FMD in India.

Later the presentation was by Dr.Aruna Kumari on Heat (Estrous) Identification. She explained about the Estrous cycle in cows and signs of the cycle. She said about the identification of Estrous period in cows and the devices used to identify the heat.

The Final presentation was given by Ms. Rekha Raja from IIT-H on Role of AI in detecting the LSD,FMD and Brucellosis. There was a discussion and Question - Answer session after each presentation. The concluding remarks and vote of Thanks were given by Shri Jai Shankar, CEO, Neer Interactives.

Report on CGDY team industrial visit Ongole Visit

2nd to 4th February 2024

The Ongole team started in the morning on second February at 6:00 a.m. and reached Ongole at 1:00 p.m. after lunch the team visited Zilla Pashuganaabhidruddhi Sangha Karyalayam” Prakashan district to discuss about Zoonotic and non-Zoonotic diseases of Cows. Dr.K.Baby Rani madam(Joint Director Animal Husbandary), Dr.Chakrapani sir(retired IAS) and Mr A Jai Shankar sir(CEO of NEER Interactives) faculty and students of AMSASCW, faculty and veterinary doctors of various animal husbandry of Prakasam district participated in the discussion.

The meeting started with opening remarks by Shri D Chakrapani .Chakrapani sir spoke about the purpose of this meeting. He discussed about how the various diseases are affecting the cows and the collaborative activity of AMSASCW, NEER INTERACTIVES and IIT H. Mr A Jayshanker explained about the role of Artificial intelligence as a multi disciplinary tool which helps in recognizing symptoms of diseases in cows at early stages and also acts as preventive tool to reduce abortions in cows which are affected by Brucellosis disease. The discussion went on with zoonotic and non zoonotic diseases. Dr Baby Rani joint director Animal husbandary, Prakasam District gave an insight of cow farming and grooming in Prakasam districts with special reference to Ongole breed of cows.

The doctors who suffered from brucellosis which was not identified by allopathic doctors said that they had identify themselves as per symptoms it was Brucellosis. Also warned other farmers and doctors to take precautions while treating cows. Some of the participants expressed their doubts how artificial intelligence can be used in treating diseases of cows Dr.M.VijayakumarReddy, Dr.M.Soma sekhar and Dr.K.Anil have raised some notable points how brucellosis is affecting cows and how it is treated.

The students of AMS ASCW presented PPT,s on Foot and Mouth Disease Lumpy Skin Disease Brucellosis and Estress. The 9th standard students St Xavier High School, presented their models on the above diseases. Joint director Dr K Baby Rani felicitated shri D Chakrapani. The team left for Chadalavada farm along with the team. Dr Baby Rani and her team showed how the farming and grooming of various cows in Chadalavada farm. The cows were placed in various sheds as per the order of their age and it was also discussed about treatment of diseased cows at Chadalavada farm.

From Chadalavada discussion Later we moved to lord SriRama temple at Chadalavada and the priest explained about the temple history.

The next meeting was in magistrate office Ongole. The team met the Prakasham district collector named Shri A.S Dinesh Kumar IAS and discussed the project related to CGDT The Collector appreciated the efforts made by CGDT, AMS and IIT(H) and students of AMS.

Day-2: On Saturday the CGDT team visited lord Venkateswara Swamy temple (i.e.Sri Giri situated at Ongole) and took blessings. Later went to temple goshala and saw a lot of different breeds of cows present there.

Later we have reached Bhagiradha Chemical Industry at 10:15 a.m. and learnt details about that industry which was led by S. Chandra Shekar sir and later the manager made a total brief round of that industry in detail. The main products of the company were Chlorpyrifos Ethyl(pesticide), Azoxystrobin(fungicide) and Fipronil(insecticide). And also saw the chemicals which are manufactured over there and lunch was arranged by Bhagiradha Chemical Industries.

The students had the pleasure of visiting Kothapatnam beach and shared joy. Started to Vijayawada in the evening and stayed at Ananda Jyoti Nilayam

to stay at night at 7:50 p.m.

Day-3:

Started to Vijayawada for blessing of Durga Mata and later at morning 8:20 a.m. took blessings and started returning to hup at 9:30 a.m. Had breakfast in the middle of the way in the” Bharatiya” restaurant and reached Hyderabad at 3:00 p.m.

**ONE DAY SEMINAR on
Presentations and Case Studies on Geo Spatial Data Technology
on 3rd July 2024**

In Collaboration with CGD on Centre for Geospatial Digital Twins and Neer Interactive Solutions on 3rd July 2024 in MV Hall of AMS Academic Campus TOPIC: Featuring Presentations And Case Studies On Geospatial Data Technology The Department of Sciences, in collaboration with the CGDT Centre for Geospatial Digital Twins and Neer Interactive Solutions, organized a one-day seminar on July 3, 2024, focusing on “Featuring Presentations and Case Studies on Geospatial Data Technology.”

The event was graced by Shri Jaishankar, CEO of Neer Interactive Solutions, as the chief guest. The program commenced with the welcoming of the guests onto the dais by Ms. Sripriya and Ms. Monasriya, students of BTZC III Year. The invocation was performed with Vande Mataram, followed by the lighting of the lamp by all the dignitaries. Dr. Karuna Devi, Academic Coordinator, introduced the theme of the program, emphasizing the importance of multidisciplinary education in the current era.

Mrs. P Sarada Coordinator of CGDT, highlighted the significance of Artificial Intelligence and Machine Learning. Shri D. Chakrapani, Retd IAS, Chairman of AMSASCW, expressed his pleasure at being associated with the CGDT Centre for Geospatial Digital Twins and Neer Interactive Solutions. He highlighted on ongoing events, collaborations, and internships at AMS, encouraging students to stay updated with technology, seize opportunities, and enhance their knowledge.

Chief Guest Shri Jaishankar emphasized the importance of academics, soft skills, personality development, internships, and projects. He advised students to develop domain knowledge in their areas of interest.

Presentations were given by students from IIT Surat and GITAM University on various topics:

- Mr Vivek and Lahari on Pollution in Water Bodies
- Mr Rohit on Air Pollution
- Mr Sameer and Durga on Wildfire Detection
- Mr Sreenu on Lumpy Skin Disease
- MrManoj on Estrus Cycle
- Mr Seetharam Chakri on Visualization of Data from LSD and Estrus Cycles

All presentations were highly effective and informative. Approximately 200 students attended the seminar, gaining valuable insights from the discussions. Vote of thanks given By Mrs P.Sandhya Rani, Asst Professor in Department of Biotechnology. The program concluded with the National Anthem.