

Maturi Venkata Subbarao Engineering College



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Nadergul, Hyderabad-501510

A

Report

On

Rural Agriculture Work Experience (RAWE) Internship Programme

For

B.E. First Year Students

10.08.2020 to 03.10.2020

By

Dr. M. D. V. Srilalitha

Acknowledgement

I would like to express my special thanks and gratitude to the Management, our Principal, Dr. G.

Kanaka Durga and Head, Department of Sciences & Humanities, Dr. A.R.Subrahmanyam of

Maturi Venkata Subba Rao Engineering College, Nadergul, Hyderabad who gave me this

opportunity to coordinate the RAWE Internship programme for B.E first year students which has

been a great learning experience to me.

I am also greatly indebted to Industry Institute Interaction Cell (IIIC), MVSREC Institution's

Innovation Council (IIC), MVSREC, Brigadier Ganesham and his team of PalleSrujana without

whose support the internship programme would not have been possible.

Thanks are due to my colleagues and fellow team mates, of RAWE internship programme and

also the branch coordinators of the Engineering departments whose sustained and coordinated

efforts helped us in completing the programme successfully.

Thanks once again to all those who have supported us technically in running this programme.

Date: 31.12.2020

Dr. M.D.V.Srilalitha

Assistant Professor, I/C Physics

Coordinator of RAWE programme

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Abstract

This is a report on the internship programme offered online for B.E Semester II students by the department of Sciences and Humanities, which was conducted during 10-08-2020 to 03-10-2020. The programme was designed and offered in collaboration with Industry Institute Interaction Cell (IIIC), MVSREC and Institution's Innovation Council (IIC), MVSREC, and "PalleSrujana" – A voluntary Organization.

Rural Agriculture Work Experience (RAWE) Internship Programme is conducted for students of the varied branches of Engineering who are in the second semester. They were compulsory made to undergo the internship programme. 940 students were trained from all the branches of Engineering. The coordinators were Dr. Sandhya, Dr. G.Lakshmi Kameshwari and Dr. M.D.V.Srilalitha

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Introduction:

Agriculture in India is a major performing sector and it is the back bone of Indian economy. It creates plenty of employment opportunities as well. About 65% of Indian population depends directly on agriculture and it accounts around 15% of production.

RAWE (**Rural Agriculture Work Experience**) is conducted in the First semester of the four year course(B.E ½). The main aim of the programme is to acquaint the students with the ethos of a village and the farming practices so that they can have insights and hands on knowledge of the agricultural practices.

In this regard Industry Institute Interaction cell and Institution's Innovation Council of MVSREC conducted a RAWE internship programme for students of B.E in association with Palle Srujana which is a voluntary organization.

The Objective is to enable the students get practical insights and know how, which otherwise would have been known only theoretically.

During this academic year 2020-21, due to the prevailing COVID 19 pandemic code restrictions the students were mostly home bound and unable to participate in offline activities, we decided that semester-2 students of B.E to be trained by Palle Srujana in the online mode

Rural Agriculture Work Experience (RAWE)

Agricultural education is an important tool by which we can be ensured of gradual increase in agricultural productivity and sustainability in productivity, environment and ecological security, profitability, technical feasibility, job security and equity in distribution.

What is RAWE?

Agricultural education is a dynamic one, which is undergoing change in a very rapid manner to meet the need of the society. Under this situation, Rural Agricultural Work Experience Programme (RAWE) is an important competence and confidence building programme introduced by many universities.

In India, Randhawa Committee (1992)[1] recommended the RAWE Programme for imparting quality, practical and productive oriented education for the agriculture degree programme. In fact experimental learning is exactly what the name implies, learning from work experience.

Work experience includes physical and mental efforts exerted for a purposeful activity through training, observation, practice, experience and personnel participation or involvement. One of the ways by which this can be achieved is the Rural Agricultural Work Experience (RAWE).

Objectives of RAWE Programme:

- 1. To develop among the students an understanding of rural life and different situations prevailing in villages with special reference to agriculture.
- 2. To help students to get familiarity with the socio-economic conditions of farmers and their problems with reference to technical development.
- 3. To develop communication skill among students in using extension teaching methods' in transfer of technology in the villagers.
- 4. To develop confidence and competence in students for solving problems related to agriculture at farmers field.
- 5. To help students to acquaint with the on-going thrust agricultural programmes and related transfer of technology programmes in agriculture.

About PalleSrujana

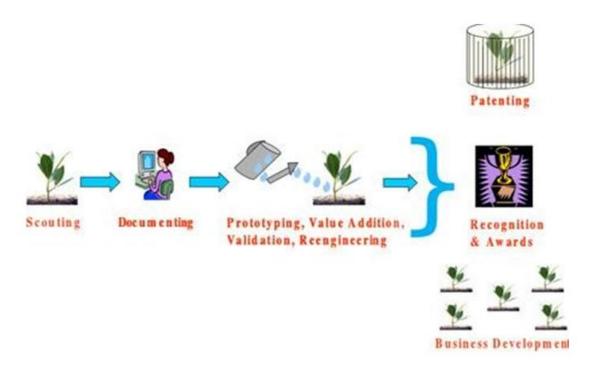
PalleSrujana[2] is a voluntary organization committed to scouting and promoting of Grassroots Innovations and Traditional Knowledge, in the states of Andhra Pradesh & Telangana as part of nationwide Honeybee network. With its vast experience and interaction with Innovators at the Grassroots level PalleSrujana offers internship in the field of Low Cost Sustainable Eco-Friendly Technologies especially in those areas where sustainability is of prime importance. There will be a rural bias in the Internship.

They scout across the rural parts of Andhra Pradesh and Telangana for knowledge and innovations. They document the knowledge acquired through scouting with due recognition to the knowledge provider.

The Grassroots innovations will be promoted and provided support for validation and reengineering. PalleSrujana also helps the innovators to get their technologies patented and take them to national and international level of recognition. The rural knowledge is disseminated horizontally; form land to land and village to village through ShodhaYatra, magazines in local language, participating in various farmers meet etc.

PalleSrujana being a voluntary organization, entire activity is accomplished through pure volunteerism. They involve students, elders, women, private and public institutions and organizations, NGO's and Government in the entire value chin of the grassroots innovations.

The grassroots knowledge is linked to the formal system for validation, value addition, patenting, reengineering, manufacturability, marketability and business incubation etc

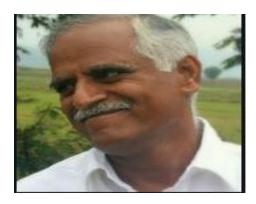


Flow chart representing the link between the scouting, reengineering and connecting to the formal system

Objectives of the PalleSrujana Internship

- To connect society and Grassroots Innovations and leverage their strength and opportunity for higher productivity and entrepreneurship in the society
- To engage interns in finding solutions to problems at Grassroots, in collaboration with Grassroots Innovators
- To evolve methods to contain the sustainability by studying the impact of technology introduced in rural areas and develop better options

Introduction to the Founder of Palle Srujana



Brig P Ganesham, VSM (Retd)

- Brig PogulaGanesham born in village Bhoompally of Telangana, is an engineering graduate from Osmania University and MBA from Delhi University. He did post graduation in Defence Technical Staff course from DIAT, Pune. A specialist in Armoured Fighting Vehicles served the Indian Army with distinction for over thirty five years including Command of a battalion in Kashmir in thick of counter insurgency operations.
- He was instrumental in developing a multi-role weapon platform "Windy" for the Army, which was displayed on the Republic Day Parade 2004. He also obtained the patent for this vehicle, which is the first patent of the IndianArmy.
- For his distinguished services, Brig Ganesham was awarded "VishishtSeva Medal (VSM)" by the President of India on the occasion of Republic Day2005.
- Brig Ganesham retired from the Army and served Bharat Dynamics Ltd (BDL) as
 Director (Production) from 2006-9. He is a member of the Advisory Board of ECHS,
 Telangana and Andhra Pradesh, Rajya Sainik Board and State Managing Committee
 for Veterans, Telangana since 2015 and strived to ensure veterans and their families
 live in dignity. He is also on the Governing Board of few academic Institutions.
- Post- retirement, he formed a voluntary group "PalleSrujana" with likeminded friends to promote knowledge based activity in unified Andhra Pradesh in 2005. This is a part of the Nationwide Honeybee network at Hyderabad to pursue the mission of National Innovation Foundation (NIF)- India in AP and Telangana. This group also publishes a bi-monthly "PalleSrujana" in Telugu for dissemination of grassroots creativity and traditional knowledge, since2006.

- In the last 15 years, he addressed over 80000 students in both Telugu states and walked over 4000 Kms across the country in remote areas visiting over 1200villages.
- His passionate quest for identifying natural grassroots innovators is infectious. He built
 a voluntary and virtual honeybee network in AP and Telangana with over 3000 strong
 volunteers drawn from all sections of the society. In the last 15 years, they identified
 over 300 innovators and documented more than 2000 traditional knowledge practices.
- PalleSrujana facilitated many grassroots innovators to be recognized by National, International Governments and private Organizations. Innovators were showcased and connected to formal reputed institutions. Till date, Innovators received 13 President of India awards and 26 patents. 56 innovations incubated and marketed successfully. Combined turnover of the grassroots innovations during the period 201520 is over Rs 20 Cr touching the lives of over 7 lakhs Telugu families and providing employment to over 200 people in rural region
- On Republic Day 2017, two grassroots innovators scouted by PalleSrujana were awarded 'PADMASHRI" by Govt of India. One Innovator was honoured with ASEAN First Prize at Asia Innovation Festival during October 2019. Two Innovators have been awarded "National Entrepreneurs" by the Govt of India in 2017 and 2018. NIRD awarded two Grassroots Innovators for the Best Innovation in waste disposal sector and one innovator for Best Start Up during RSIC 2019. C V Reddy farmer innovator has been a warded PADMASHRI in Jan2020.
- His mission is to highlight the significance of grassroots innovations for an equitable growth of the Nation to the students, industry, scientific community, society in general and Government

Programme Plan

The programme has been initiated and supported by the management of MVSREC, Principal, HOD's of all the departments, RAWE Coordinators, Class Coordinators from the department of Sciences and Core Engineering departments, members of PalleSrujana, Volunteer Leads of PalleSrujana, and supporting staff. The complete guidelines have been given to the students before commencement of the programme. Students completed the one week Internship programme under the guidance of RAWE Coordinators, Class Coordinators, members of PalleSrujana and Volunteer Leads of PalleSrujana.

There were 940 students from all the departments. The internship programme was for one week in the virtual mode. Hence the students were divided into different groups. Each group consisted of roughly a 120 students. The said program was conducted for 8 weeks from 10/08/2020 to 03/10/2020. Each week the internship programme was conducted to 120 students from various branches and were further divided into 12 batches, each batch consisting of 10 students.

For each group the online programme was conducted for one week. The programme was divided into two sessions, morning session and evening session. The morning session was conducted in the virtual mode for three hours i.e from 10.00 am to 1.00 pm

Morning session was engaged by the President of PalleSrujana Brigadier Ganesham, and senior volunteer leads of PalleSrujana. They discussed different topics like their experiences with the villagers, innovative thoughts of the villagers, the motive behind their organization, creativity and grassroots, Micro to Macro Innovations, village culture, GyanShod and ShodaYatra, Achievements of Innovators, Scouting, dissemination to grass root levels, formal and informal systems, etc.

The evening session was also conducted in the virtual mode for one hour from 5.00 pm to 6.00 p.m. Evening sessions were engaged by Volunteer leads of PalleSrujana. Each day one assignment was given to the students like interacting with villagers, selecting a village and talking to them, interacting with innovators, interacting with the migrants in the village, problems in the village etc. the students were asked to write an assignment and submit to the volunteer leads on the next day morning. Attendance and feedback were collected through a

Google form at the end of the session.

The volunteer leads had zest fully ensured that they interacted with every student and the villagers in the virtual mode. The students were impressed by the virtual conversations with the villagers and the innovators.

The programme was designed in such a way that forenoon sessions and afternoon sessions were conducted for five days in the virtual mode and on the last day the students were asked to give presentations individually through a power point or in a video mode. President of PalleSrujana Brigadier Ganesham and the Class coordinators evaluated the students for their content and presentation. All the presentations of students were recorded.

Instructions to Students

These were the instructions given to students prior to the programme.

- Sit in a quiet location where you will not be disturbed.
- You may use Laptop/Desktop/Smartphone for attending sessions. (Laptop/Desktop is recommended for clear and effective presenting experience).
- Join sessions (10 A.M to 1 P.M) using Google Meet and link will be shared soon. Common link for all the sessions.
- If Students are using a Smartphone, they need to install "Google Meet App" from Play Store/App store and join the session using that App. For Laptop/Desktop, the latest Google Chrome /Firefox Browser is recommended. Ensure that you have good internet connectivity for any of the above devices to join.
- Join the sessions 15 minutes before the commencement i.e. at 9:45A.M.
- Turn off your CAMERA and MUTE your AUDIO before joining the session.
- Attending all the sessions is MANDATORY for evaluating Marks/Credits your attendance for every session will be recorded.
- Be an active and interactive participant for all the sessions.
- Please note down the queries if any and ask through the chat box during Q&A at the end of the session.
- For any queries please contact Class Coordinator/Dept Coordinator or Batch Coordinator of your respective section.

RAWE Internship Program Schedule

The following table is the RAWE Internship Schedule for B.E I/IV students for all branches

Week	Date	Section
1	10/08/2020 to 16/08/2020	CSE 1 & CSE 2
2	17/08/2020 to 22/08/2020	IT 1 & IT 2
3	24/08/2020 to 29/08/2020	CSE 3 & IT 3
4	31/08/2020 to 05/09/2020	EEE 1 & EEE 2
5	07/09/2020 to 12/09/2020	AUTO, MECH 1 & MECH 2
6	14/09/2020 to 19/09/2020	CIV 2 & CIV 3
7	21/09/2020 to 26/09/2020	ECE 1 & ECE 2
8	28/09/2020 to 03/10/2020	CIVIL 1 & ECE 3

Details of Course Coordinators:

The programme coordinators were Dr. Sandhya, Dr. G. Lakshmi Kameswari, and

Dr. M. D. V. Srilalitha. They coordinated the programme with the help of Class Incharges. One each from Sciences and Engineering departments.

Week	Section	Class Coordinators
1	CSE 1 & CSE 2	Dr. M.D.V.Srilalitha, Dr. M.Ravindar Reddy, Mr.Phani, Mrs. A. Saritha
2	IT 1 & IT 2	Mrs. P. Sailaja, Mrs. G.Ushasri, Mrs. P.AmbhaBhavani, Mr. G.Anjaneyulu
3	CSE 3 & IT 3	Dr. M. Suchetha, Mrs. N. Tirumalata, Mrs. K.V Srilakshmi, Mr. P. Karthik
4	EEE 1 & EEE 2	Dr. K. Hadasa, Dr. K. Phaneendra, Mr. I.V.M. Swamy, Mr.V. Raghu krishna
5	AUTO, MECH 1 & MECH 2	Mrs.P.Swapna, Mr.A.Ramakrishna Reddy, Mr.Moiz En, Mr.B.Ramu, Mr. B. Ravikumar, Mr. B. Suresh kumar Reddy
6	CIV 2 & CIV 3	Dr. D. Rekha, Mr.K.VenkataRamana, Mrs.SwethaKoushik, Mr.ASanjay Kumar
7	ECE 1 & ECE 2	Dr.M.Booshan, Mr.P. Shiva shaym, Mr. G. Sravan Kumar
8	CIVIL 1 & ECE 3	Mrs. M. Jyotsna, Mr. V.Vamshi Kumar, Mrs.Sriranjani, Mr.K. Narasimharao

Day wise Course details and Schedule for Rural Internship program by PalleSrujana:

Day	Time	Activity	Participation	Assignment	Learning outcome	Task of Volunteer Lead
Two Days before the programme starts	Evening	Institutions may share the list of Internees divided into groups of ten each, nominating the coordinator				
		along with their Contacts and emails. College Coordinator (CC) and Anchor Voluntary lead (AVL)will set up a WhatsApp group with brigadier and principal in the group.				
One day before the	Afternoon	Each group will be contacted by a Volunteer Lead (VL) from PalleSrujana and on a suitable web platform form their own Whats App groups. Ice breaking among the group and knowing each other for an hour. PalleSrujana will share the schedule for six days of Rural Internship with CC for dissemination to the relevant faculty and the participants.	Volunteer Leads (VL), Internees			
programme starts	Evening	Groups will interact on web and discuss the Schedule of the Internship. Four assignments will be given to Internees on first four days which they have to submit through emails/Whats App by next morning 9 AM. One report per group is accepted.	Volunteer Leads (VL), Internees		Process of Unlearning	

Day	Time	Activity	Participation	Assignment	Learning outcome	Task of Volunteer Lead
Day 1	10.00 AM - 12.30 PM	Understanding Rural areas	Brig P Ganesham	Assignment1 Internee groups will be tasked to talk to one village each and understand the changes came about after Covid in villages.	Sensitization to the rural context	
Day 1		Chinna Shodha Yatra and Gyan Shodh	Anji Reddy	_	Tools for scouting creativity	
	5-6 PM	Interaction of Internees with respectiveVL	All VLs			Take feedback of the morning session and guide them in assignment

Day	Time	Activity	Participation	Assignment	Learning outcome	Task of Volunteer Lead
Day 2	10.00AM- 12.30 PM	Grassroots Innovations and their significance, Interaction with two Grassroots Innovators(GRI)	Brig P Ganesham Mrs RajuVenkata Krishnudu	Assignment 2 Each group speaks to one GRI each and write a story on Innovator and innovation	Understanding grassroots innovations how they are different From industry products. Understanding the process of identifying a pain point, immersing oneself in it, and coming up with solutions	
	5-6 PM	Interaction of Internees with respective VL	All VLs			Take feedback of the morning session and guide them in assignment

Day	Time	Activity	Participation	Assignment	Learning outcome	Task of Volunteer Lead
Day 3	10.00AM- 12.30 PM	Palle Srujana and its approach to nurture grassroots creativity, Scouting and Documentation	Brig Ganesham, M RajuBhanu Pradeep Srikanth	Assignment 3 Technical documentation exercise	knowledge and document it in a	
	5-6 PM	Interaction of Internees with respective VL	All VLs			Take feedback of the morning session and guide them in assignment

Day	Time	Activity	Participation	Assignment	Learning outcome	Task of Volunteer Lead
Day 4	10 AM - 1230 PM	The art of knowledge dissemination, Grassroots Entrepreneurship and How to make a district Innovative?	Brig P Ganesham J Stikar. Subhash Chander . Akhila,	suggest a method to contribute to a	Dissemination in rural areas. What is the role of Goyt, NGOs, Media and other Ability to bring village perspective to drawing board	
	5-6 PM	Interaction of Internees with respective VL	All VLs			Take feedback of the morning session and guide them in Assignment

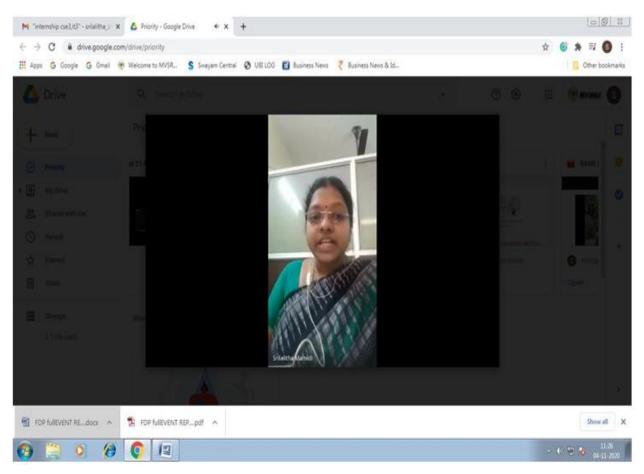
Day	Time	Activity	Participation	Assignment	Learning outcome	Task of Volunteer Lead
Day 5	10.00 AM - 12.30 PM	Role of the formal system in promoting GRI, Grama Swayam Samruddhi, Creativity in Children		Internees individually		
		Internees with	All VLs	Discuss Preamble of our Constitution and		Take feedback of the morning
	5-6 PM	respective VL		Article 51 A on Fundamental		session and guide them in
	J-0 PIVI			Duties.		the presentation

Day	Time	Activity	Participation	Assignment	Learning outcome	Task of Volunteer Lead
Day 6	10.00 AM to 4.00 PM	Internees	College Evaluation Faculty, <u>PalleSrujana</u> - Brig and VLs	Each group will present as follows: to Include four Internees to talk on four assignments and two internees to talk on Impressions and feedback from each batch and the time allotted is 25-30 mins. English or Telugu languages can be used for presentation. Detailed report to be submitted by each group to their Voluntary lead		

Day Wise Report:

Day - 01

As the programme is in the virtual mode, the meeting link is shared by one of the class coordinators prior to the schedule. The programme started at 10.00 am. The programme coordinator Dr. M.D.V.Srilalitha started the programme by introducing herself to the PalleSrujana team she introduced class coordinators and the students. Later instructions are given to the students and information of the programme schedule and weightage of marks is shared.

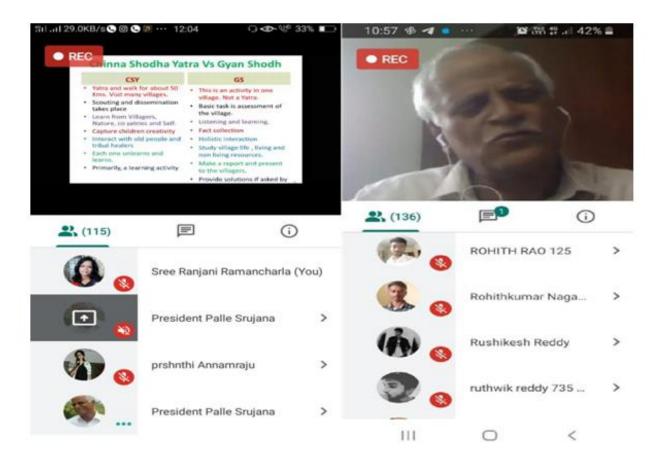


At 10.30 am Brigadier Ganesham, President of Pallesrujana started the programme by asking the students and class coordinators "what is a village? He always wants the students to interact and involve in the programme.

Brig Ganesham addressed the students for an hour the key points in his talk were introduction of PalleSrujana, the connectivity of PalleSrujana with the formal system, some of their experiences with the villagers, daily village activities and their systems. Brigadier Ganesham made the students aware of the internship programme that is carried out by PalleSrujana in different schools and colleges.

At 11.30 am Brigadier Ganesham introduced one of the Senior Volunteers of PalleSrujana Mr. Anji Reddy. His talk was about "Methods and Tools" of PalleSrujana which portraits GyanShodh, ChinnaShodhaYatra, differences between GyanShodh and ChinnaShodhYatra, Gram SwayamSamrudhi.





The objective of the **GyanShodh** is "to provide an opportunity for young engineering students to interact with the rural environment, and create database pertaining to the villages visited comprising of the creativity, traditional knowledge, problems solved and unsolved and suggest approaches and solutions"

ChinnaShodh Yatra is a pilgrimage to the forgotten temples of knowledge. They believe that the villages and villagers are highly knowledgeable and understand their expertise in living in harmony with their surroundings. They select a village and walk for 2-3 days and interact with the nature and the people. The inspiration for ChinnaShodhYatra came from National Innovation Foundation (NIF).

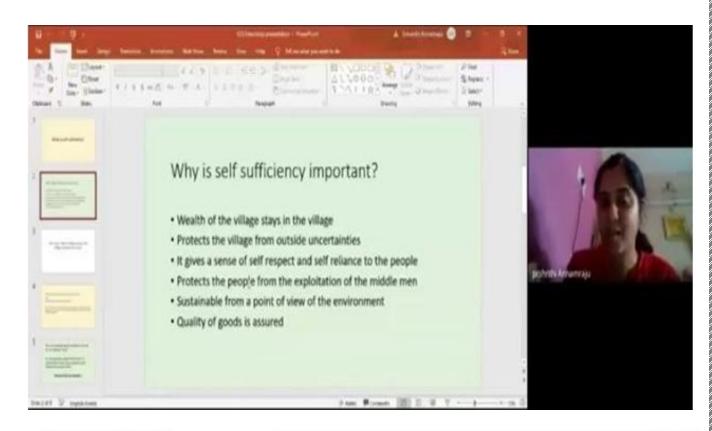
GyanShodh and ChinnaShodhaYatra inspired the students immensely and they interacted with Mr.AnjiReddy



Then at 12.30pm Brigadier Ganesham explained about writing the assignment. First assignment was about interacting with the villagers. Day 1 session was ended at 1.00 pm. In the evening sessions the volunteer leads of PalleSrujana interacted with the sessions about writing and submitting the assignments.

Day - 02

On the second day Brigadier Ganesham started the Programme by interacting with the students of the previous day's feedback. He also gave the feedback of Assignment 1 submitted by the students. Later he began with the topic "Grass roots innovations and their significance" ----Understanding grassroots innovations, how they are different from industry products. He shared the innovations of different people in the society. The efforts and involvement of PalleSrujana in encouraging innovations was also discussed. His talk was for one hour.

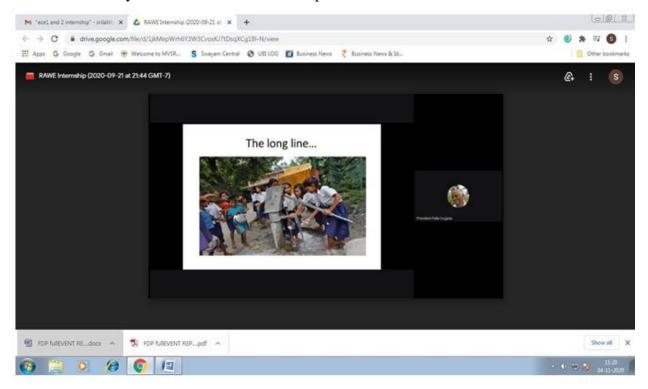




Later Brigadier Ganesham introduced any one of the innovator. They talk about their

innovation and share their experience with the students which motivated the students

Then at 12.30pm Brigadier Ganesham or one of the Volunteers of Pallesrujan explained about writing the assignment. Second assignment was on "write a story on Innovator and innovation". Day 2 session was ended at 1.00pm.



Motivational Sessions by Successful Innovators:



Laxmi Asu Machine & Chintakindi Mallesham

- . Drudgery for in Manual process for the last 65 years
- 18000 times hand movement per day across 4 feet winding the silk thread – called ASU process
- Mallesham to reduce the pain of his mother automated the process.
- No attendance required, yet the machine does the task in 1.5 hrs with power consumption of and Rs 2
- · Great relief to women of Pochampalli tradition.
- · Girls go to college , live with least health issues
- Tradition survived as it is no longer dependent on the women performing manual asu.



Solar sprayer

- Silent, pollution free, light weight no operational cost sprayer.
- 6-8 Kg of less weight compared with others sprayers . 18 Kg wt.
- · Continuous running for 4-5 hours
- · Battery full charging in 5 hrs
- Cell phone charging and running DC lights and fans provided
- · No noise, sound and air pollution
- · No fuel required.
- · Versatile, can be used for low crops, and horticulture trees.



Bore well Rescue Device/Ramesh A

- · An effective rescue device for those who fall in bore wells.
- The Rescue kit contains a CC Camera, Phone, Robot Hand, Ropes for babies, handles etc
- · Oxygen supply is essential.
- Rescue of the kids is easy and can be done safely in least time.
- · Animals can also be rescued.
- Recommended to be part of disaster kit with police, Panchayats and Municipalities.



Hyacinth Remover -G Narasimha

- Hyacinth from any water body possible.
- With single machine 30-40 tons per day is the rate of removal.
- · Customized machines
- · Machines are on sale as required.
- Cleaning on turnkey basis is also accepted.



Multipurpose Cot, Jumbo Cooler, Poll Climbers by Alladi Prabhakar





 A centrally placed cooler which revolves all 360 ° and cools the entire hall. Very useful for Function Halls, Open Meetings under shamiana, etc.



- A very useful bed for the patients who are advised bed rest, those who are very old and sick, those who are terminally ill, in short, anyone who cannot get up on his own without help.
- A bed with all facilities like wash basin, commode, with drainage facility to be attached to the main drain.



- A boon for attenders to sick people. A wheel chair with all facilities like commode, wash basin, etc.
- All three products listed above have been developed by Sri Alladi Prabhakar

SRITAILAM by Galla Chandra Sekhar



- · Avery useful household medicine
- · Its for external application only
- · Very effective as mosquito repellent
- Excellent remedy for burns, scalds, diabetic wounds, etc.
- Good remedy for pains, aches, etc.
- A product by Galla Chandrasekhar, a grassroots innovator and his friends.
- Medicineiln stock immediate delivery



Weeder with Scooter Engine by Balaiah

Two years of relentless work on many models by Balaiah - a farmer from Ramannapet village, Nalgonda Dist of Telangana State, resulted in an effective weeder for small and marginal farmers.

Being simple to operate and easy to maintain, farmers flocked Balaiah and placed orders for weeder. So far, over 80 weeders are already in use by farmers.

5 feet long, 20 inches wide weeder has its tyres filled with water for a smooth movement in the fields. Its operation is similar to that of a scooter - such as, kick starting, clutch and gear changing etc. Very user friendly and mainatainable in a village.

Solar Fertilizing Dispencer by B Mallesh

- Ensures even and effective spray of fertilizer compared to spray with hand.
- Economical in consumption of fertilizer.
- Least effort, easy to operate.
- Weighs only 6.5 Kg
- Uses 20V Solar Panel, 1/4 HP motor, 12 V Battery
- Container capacity 17 Kg fertilizer.
- Spray of 17 Kg fertilizer 7-10 minutes.





Thirupatirao Tree and Poll Climber

Labour to climbing coconut trees, Cement electrical poles is not available due to the drudgery involed and also being unsafe. Even often manually climbing all the up using ladder working at the top is dangerious. A very useful device, very simple to use and can be used or a personal tool for climbing coconut tree and cement electrical poles is developed by Thirupathi Rao. Round and rectangular electrical polles can be easily climbed with to separate devies. Children, Women and Elders can also c...... use these devices.

Climbing duly rainy season in also safely possible using thease devices.

Pandu Ranga Rao Air Ceal Bike Tube

In rural areas, when motor bikes go through punctures, riders face lot many difficulties such as pushing the bike for long distances, thus damaging the tube completely leading to its replacement rather than repair. At an average, one new tube per month is the requirement of a bike owner in rural areas. Panduranga Rao developed a solution which he pours in a new tube. This tube having fitted in a tyre is filled with air sufficiently. The bike fitted with Airceal tube in this manner does not get



punctured for three years. Try by hammering nails on to a tyre fitted with Airceal. No punctures will be noticed. You can happily ride the bike with your family.

Bhumaiah Chary Room Air Cleaner

- A simple arrangement with an exhaust fan fitted upside down.
- Air sucked and pushed into a tub filled with water.
- Water traps the dust particles and the clean air moves back into the room.
- · A poorman's health device.
- · Clean air at affordable price.





Bhumaiah Chary Nose Filter

- · Simple to use.
- Copper holder and cotton sleeves
- Fix it in the nose and holder is adjustable to fit to the nose size
- Remove sleeves when they get clogged and breathing becomes difficult.
- · Replace fresh sleeves on the holder.
- Price: Rs 75 for 2 holders and 30 sets of sleeves.

R. Vishwakarma Sugarcane Bud Chipper

- Device to cut buds from sugarcane developeda by R Vishwakarma...
- Chipped buds can be sown directly in the field or grown in nursery.
- One can chip 250-400 buds/hour.
- Brings down the cost of plantation by over 90%
- Delivery time one week



Viswanatha Raju Easy Planter

In farms where plastic mulching is used, plantation is a laboriuous task. Cutting of plastic sheet, placing the plant, covering it with mud around it would place high demand on labour, effort and time.

Viswanatha Raju has combined all the three actions into one dieice - Easy planter. This is operated by two persons- one for the device and the other for placing the plant inside the device thus saving on labour, The plastic piece cut by the planter does npt go into the soil as it hangs on to the mulching sheet (being cut only 2/3) thus contamination of the soil is completely eliminated. A very effective labour saving simple device for small and marginal farmers which surely contributes in reduction of farmer's investment.

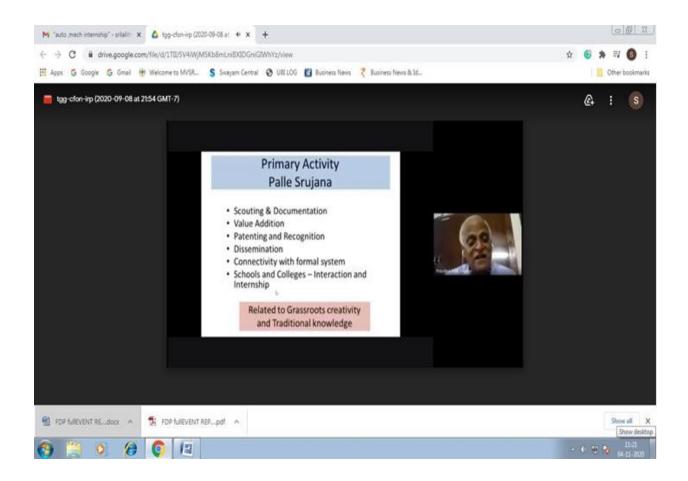
Day -03

On the third day Brigadier Ganesham presented about scouting, and documentation. He described the activities involved in scouting and identifying innovators and connecting with the formal system.

He gave a presentation on how they work for national level recognitions, helping them to get patents, exhibiting innovations country wide with the help of volunteers, taking knowledge of school students to the national level and getting them recognition from the president of India and financial support to innovators. Experiencing the challenges in technical education.

Depending on the availability of time some of the innovators had shared their experiences and knowledge of their innovations. They explained the problems they faced during their innovations. Some innovators also asked the students to help them technically by explain their problems.

The session ended by discussing about assignment 3.



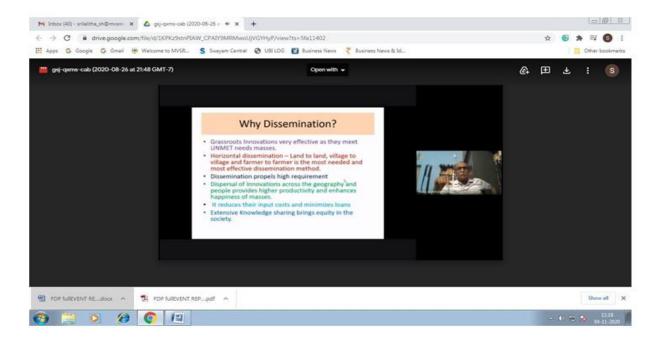
Day - 04

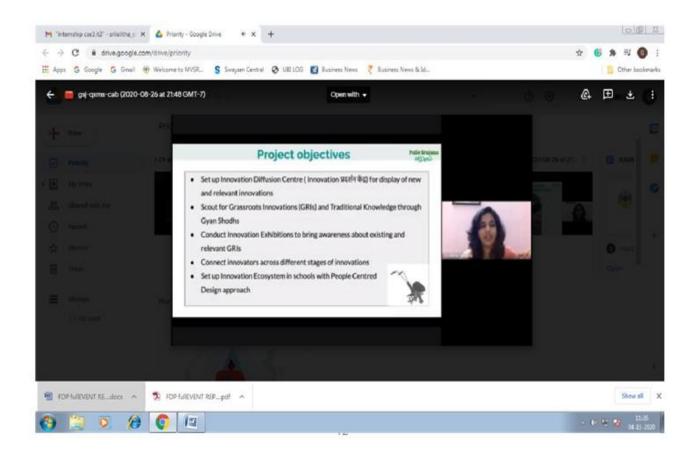
On day 4 Mr. Srikar, Vice-President, PalleSrujana gave presentations on PalleSrujana, NGO. He explained in detail about PalleSrujana Organization, magazine publications, and PalleSrujana trust, functioning and opportunities available etc.

He discussed the art of knowledge dissemination, Grassroots Entrepreneurship and how to make an innovation. What the challenges in dissemination in rural areas are. What is the role of Govt, NGOs, Media and other formal institutions in dissemination? How markets and dissemination methods are different for GRI. The ability to bring a village perspective to drawing board and vice versa. His talk was for one hour.

Later Chandra sekhar Galla – senior innovator of PalleSrujana spoke about the benefits from plants, bio sensors etc.

Subash Chandra gave a talk on marketing at the grass root entrepreneurship. His overall talk was about the process and variety of grassroots products, creating a market, how do they work in making a district innovative, project goals, and objectives developing an attitude to become Atma Nirbhar.





Akila, Prashanthi, Saikumar, Lakshmi, Omkarnath, are some of the volunteer leads of PalleSrujana spoke about their experience and journey into PalleSrujana.

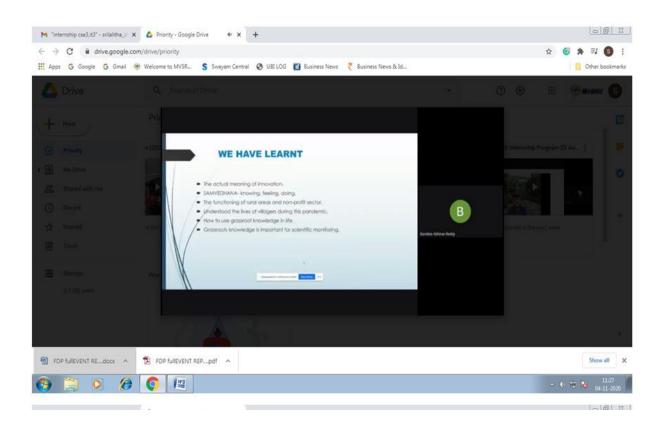
The session ended by discussing assignment 4.

Day - 05

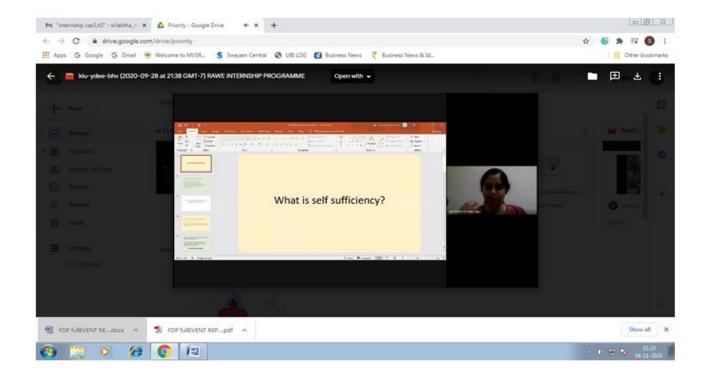
On day 5, Brigadier Ganesham gave presentation on objectives and experiences of PalleSrujana. He shared their experiences of their journey and dreams which they have to pursue. He also discussed between the formal and informal systems.

Saikumar, Volunteer lead of PalleSrujana showcased many innovations by young kids and explained about Dr. A. P. J. Abdul Kalam "IGNITED MINDS".

Anji Reddy, Senior Volunteer Lead concluded the session by his inspirational talk on issues in rural areas and providing solutions for the problems



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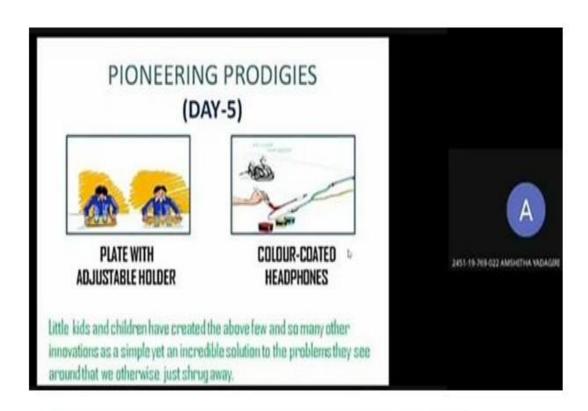


Day - 06

On day six students gave presentations on the one week internship programme. Volunteer leads of PalleSrujana coordinated the students on the topic selection and how to present.

Faculty coordinators and Brigadier Ganesham evaluated the students. After the presentation of each batch feedback was given by President of PalleSrujana Brig P Ganesham and the volunteers of PalleSrujana







LINKS OF THE INTERNSHIP PROGRAMME:

The following tables are the links of the day wise and week wise programme.

Week 01: from 10/08/2020 to 16/08/2020

Day	Date	Links
01	10/08/2020	https://drive.google.com/file/d/1GMldizxJ- mUj87XA_lAiefA4P65kUaVj/view?usp=sharing
02	11/08/2020	https://drive.google.com/file/d/1OxD gNPlXO5mvFrt0gz1s0q8mc89twJ/view?usp=sharing
03	12/08/2020	https://drive.google.com/file/d/1EfBYZFIHBeCzkVr6U3yjd-q- oCUK6nnJ/view?usp=sharing
04	13/08/2020	https://drive.google.com/file/d/1i8WRQHeL2GkPI0t5DN2q77JE6 hwV_ZGQ/view?usp=sharing
05	14/08/2020	https://drive.google.com/file/d/1Ll44oj5Fc0xg6rvRCp9V1cbxyHlUh974/view?usp=sharing
06	16/08/2020	https://drive.google.com/file/d/1cakgaqgBLkHvptFcPEAsZuYqT8 IsRTIg/view?usp=sharing

Week 02: from 17/08/2020 to 22/08/2020 (IT-1 & 2)

Day	Date	Links
01	17/08/2020	https://drive.google.com/file/d/11T26XVmw93GTsz A-rsyyTbN3hYjPdyD/view?usp=sharing_eil&ts=5f83e837
02	18/08/2020	https://drive.google.com/file/d/1Ff1w48zdtGlNmpLH04ivzYkJvOwD7 3eT/view?usp=sharing_eil &ts=5f83e851
03	19/08/2020	https://drive.google.com/file/d/1IfxRwkQywAaxNj1o8csMaomKX5r4 TmuZ/view?usp=sharing_eil&ts=5f83e860
04	20/08/2020	https://drive.google.com/file/d/100WF0_dGnpowebj-in4MA7din0CvqDFS/view?usp=sharing_eil&ts=5f83e86d
05	22/08/2020	https://drive.google.com/file/d/1V R ElJFbzLXPJpnrBmrt8kseSS1Ip UU/view?usp=sharing_eil&ts=5f83e88c

Week 03: from 24/08/2020 to 29/08/2020 (CSE-3 & IT-3)

Day	Date	Links
01	24/08/2020	$\frac{https://drive.google.com/file/d/1OHeGay088kbDn0TbvjJT4APydAHQ}{ha7b/view?usp=sharing_eil\&ts=5fa113ce}$
02	25/08/2020	https://drive.google.com/file/d/1XVp-QcCU5a7P1DW6_4SvS1jQ9vD-z5UU/view?usp=sharing_eil&ts=5fa10c64
03	26/08/2020	https://drive.google.com/file/d/1KPKz9stnPIAW_CPAIY9MRMwoUj VGYHvP/view?usp=sharing eil&ts=5fa11402
04	27/08/2020	https://drive.google.com/file/d/1u90aAHI- YOVUt6WjKwXqrVpRJ7wUHf6k/view?usp=sharing_eil&ts=5f48dab d
05	28/08/2020	https://drive.google.com/file/d/1u90aAHI- YOVUt6WjKwXqrVpRJ7wUHf6k/view?usp=sharing_eil&ts=5fa1143
06	29/08/2020	https://drive.google.com/file/d/1M0WmGXRAMhRIqawiiVnNofu0wN 22QkRV/view?usp=sharing eil&ts=5fa11340

Week 04: from 31/08/2020 to 05/09/2020 (EEE-1 & 2)

Day	Date	Links
01	31/08/2020	https://drive.google.com/file/d/1HBUs1lBAKg8FL2LF0sKtV05mtzlOtaQo/view?usp=sharing
02	01/08/2020	https://drive.google.com/file/d/1nQ71mCbXB7pUL wKA6KoO8owkjuiYC-VO/view?usp=sharing
03	02/08/2020	https://drive.google.com/file/d/19wcthlZmDtxPlpX7qwKAEJKmn2jIJBDi/view?usp=sharing
04	03/08/2020	https://drive.google.com/file/d/1j1P8TJmkQGLtSLvvFubcAAVn-iMtv-FA/view?usp=sharing
05	04/08/2020	https://drive.google.com/file/d/16d6ReedOK5049RRC2Qg7HjJ6UtJre OJB/view?usp=sharing
06	05/08/2020	https://drive.google.com/file/d/10Ri6H1qF5ItbpAJKNiwLJeM-jm3- o3Tp/view?usp=sharinghttps://drive.google.com/file/d/1Xg7b7Pi686c 0zEfGIVKv0Hkg8W40vyIW/view?usp=sharing

Week 05: from 07/09/2020 to 12/09/2020 (AUTO & MECH)

Day	Date	Links
01	07/09/2020	https://drive.google.com/file/d/1gfJZO4Y4bnWM9B3- WKNOYlcRXVZ7aVN7/view?usp=sharing
02	08/09/2020	https://drive.google.com/file/d/12vPNt3S7sXrbWP9u8onggKDW5IzPpMa_/view?usp=sharing
03	09/09/2020	https://drive.google.com/file/d/1TIIJ5V4iWjM5Kb8mLniBXIDGniGIWhYz/view?usp=sharing
04	10/09/2020	https://drive.google.com/file/d/1Fj1-XVvuB4bjOfsTlQEhcN3k- EQPVoT4/view?usp=sharing
05	11/09/2020	https://drive.google.com/file/d/1HxOw3qLXE6ivVfmLV23ryEQifI- OGAxn/view?usp=sharing
06	12/09/2020	https://drive.google.com/file/d/1HxOw3qLXE6ivVfmLV23ryEQifI- OGAxn/view?usp=sharing

Week 06: from 14/09/2020 to 19/09/2020 (CIV-2 &3)

Day	Date	Links
01	14/09/2020	https://drive.google.com/file/d/12IFwIcFD- hccqAcD0S5k3KH4qoixlhs/view?usp=sharing
02	15/09/2020	https://drive.google.com/file/d/1i2ZQxXmYxyck8t5-932G9ic_3wu0- vrs/view?usp=sharing
03	16/09/2020	https://drive.google.com/file/d/1Cwq61eMJzYRNJYBV6ukowngJqb4 71mLb/view?usp=sharing
04	17/09/2020	https://drive.google.com/file/d/1Cwq61eMJzYRNJYBV6ukowngJqb4 71mLb/view?usp=sharing
05	18/09/2020	https://drive.google.com/file/d/1gpUR2V74zavNLgrUW-tfKqQVItUBppHx/view?usp=sharing
06	19/09/2020	https://drive.google.com/file/d/1Hy1KOZh3FRwTgGV8JH0qkshyGAdoaLae/view?usp=sharing

Week 07: from 21/09/2020 to 26/09/2020 (ECE-1&2)

Day	Date	Links
01	21/09/2020	https://drive.google.com/file/d/1jkMepWrh6Y3W3CvoxKJ7tDsqXCg1 Bl-N/view?usp=sharing
02	22/09/2020	https://drive.google.com/file/d/1SOzNPgTO0x3vlZWc13yioicKvi1Hn8V M/view?usp=sharing
03	23/09/2020	https://drive.google.com/file/d/14HfWpdDn341B JATOLjHCbP 7GvJ oXYw/view?usp=sharing
04	24/09/2020	https://drive.google.com/file/d/12Seh4eHkRr04tWgipfx1E0FbLK- OiYoz/view?usp=sharing
05	25/09/2020	https://drive.google.com/file/d/1Jj5sMjAzXRusQsp5gEjdy2k0VMExZq na/view?usp=drivesdk
06	26/09/2020	https://drive.google.com/file/d/1fBjD1N1JPsv9ycX6uxU5ZSOdJr5LPy6 Q/view?usp=sharing

Week 08: from 28/09/2020 to 03/10/2020 (CIV-1 & ECE-3)

Day	Date	Links
01	28/09/2020	https://drive.google.com/file/d/1mkEM60AiLPptRS5Kde1D5PO_BjYbS NwH/view?usp=sharing
02	29/09/2020	https://drive.google.com/file/d/12x4c1CK0vBQaAwFPGpw911Aw_vaJ T_r_/view?usp=sharing
03	30/09/2020	https://drive.google.com/file/d/1s30vI3GGIsgoymCpB2o8Wr0w0LuMK Nu8/view?usp=drivesdk
04	01/09/2020	https://drive.google.com/file/d/1Sg2L4yRmHj- tGfvvSBGNw67nTlBKUc8V/view?usp=sharing
05	02/09/2020	https://drive.google.com/file/d/1GG-idxDGwH- ayS0HPW77nHrotwH0mNPn/view?usp=sharing
06	03/09/2020	https://drive.google.com/file/d/1_oCf0vpRLSpfOuRcRcE- 9XwEJQXADY81/view?usp=sharing_eil&ts=5f85763e

TOTAL STUDENTS

The programme was conducted for 8 weeks <u>as</u> the total strength was 940 students. The following is the table for the no.of students from each section

Section	No.of students
CSE 1	60
CSE 2	60
CSE 3	60
IT 1	60
IT 2	60
IT 3	60
EEE 1	60
EEE 2	50
CIVIL 1	58
CIVIL 2	60
CIVIL 3	30
ECE 1	60
ECE 2	60
ECE 3	60
MECH 1	60
MECH 2	48
AUTO	34
TOTAL	940

After completing the RAWE internship Programme for all the students of B.E I/IV **i.e.,** after 8weeks of the programme we have conducted a valedictory meet with the PalleSrujana. All the dignitaries, faculty coordinators, PalleSrujana team and the students have attended the Programme. All have expressed their gratitude and given feedback.

The following is the recorded meet link for the porgramme.

https://drive.google.com/file/d/1qxThrDmvbE4OX805stDBCcWr2GFrqfSn/view?usp=sharing

Overall Outcomes of RAWE Programme

The overall outcomes of RAWE Programme were gathered from the feedback of the students as summarized below, I t helped them be aware of:

- Rural awareness
- Field experience
- Teamwork
- Knowledge on field based research and extension methodologies
- Acquainted with recent advancement in research and extension
- Updating and collecting information through different methods
- Understanding rural life
- Learning of bottom-up approach in planning
- participation in developmental programmes
- Management of different components of farming system
- Working with people organization
- Problem-solving attitude
- Awareness about rural economy
- Impact of rural and agricultural development on rural livelihood
- Knowledge on gender mainstreaming in agriculture

Evaluation of RAWE Programme

The evaluations of students' performance had been concurrent, formative and summative on ONLINE MODE. The students have maintained their daily report countersigned by the concerned volunteer leaders and these reports were evaluated at the end of the programme. All the assignments had been conducted with close supervision and monitoring of concerned volunteer leaders. The final presentations and performance of the students was assessed by the class coordinators and Brigadier Ganesham, president of PalleSrujana.

Limitations of RAWE Programme

Due to the pandemic situation and lock down period of COVID 19, the programme was scheduled in online mode. Hence, the visit to a village for giving exposure to the students was restricted. The students could only get the experience of rural and agricultural scenario of one season and selected region.

Conclusion

RAWE is an exposure to the principles of "learning by doing" and "seeing is believing", which provides a direction to the students to think and act on their own. It offers a direction to the students to develop their knowledge, attitude and skill to graduate out as an expert and contribute in holistic development of technology. This experiential system in agricultural education has a strong potential to prepare a better agricultural technocrats with high level of skill in combination with the modern out-look and management capacity. A learner-centered approach like RAWE is proved to be a significant in building the competence and confidence of Engineering graduates and developing human resources in the field of agricultural education, research and modernizing the agricultural practices in the country.

References:

- [1] Randhawa Committee: http://jnkvv.org/Departments/Dep_FacultyofAgriculture_RAWE.aspx (as retrieved on 15 October 2020 @ 11.40am)
- [2] Palle Srujana: http://www.pallesrujana.org/ (as retrieved on 15 October 2020 @ 11.40am)

