

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

(Unit of Alva's Education Foundation (R), Moodbidri)

Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi. Recognized by Government of Karnataka.

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Shobhavana Campus, MIJAR-574225, Moodbidri, D.K., Karnataka

Ph: 08258-262725; Mob:722262724,7026262725,mail:principalaiet08@gmail

DEPARTMENT OF AGRICULTURAL ENGINEERING

-----ACTIVITY REPORT 2022-23

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Annexure

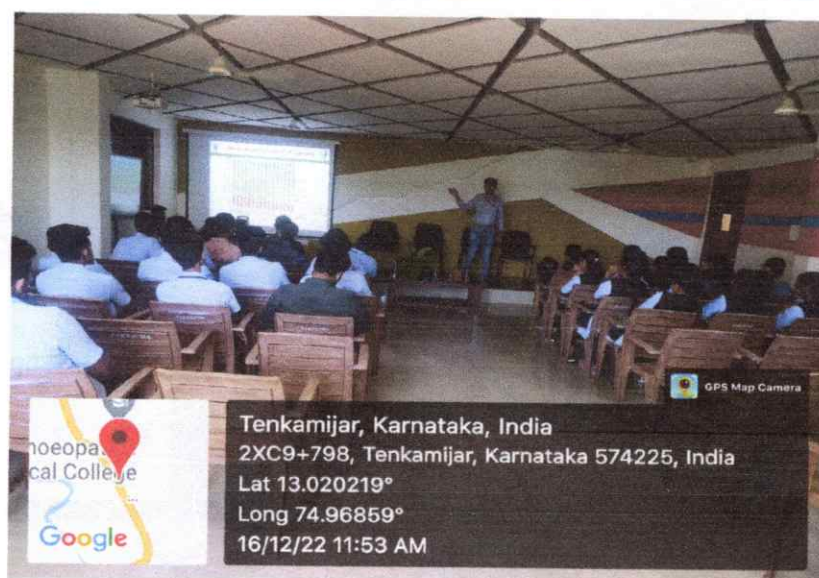
Department of Agricultural Engineering

Technical Talk Report on status of Farm Mechanization in India - Challenges and Way Forward

Objectives

To know about importance, challenges and way forward of agricultural machineries in India

Report with geo tagged photos





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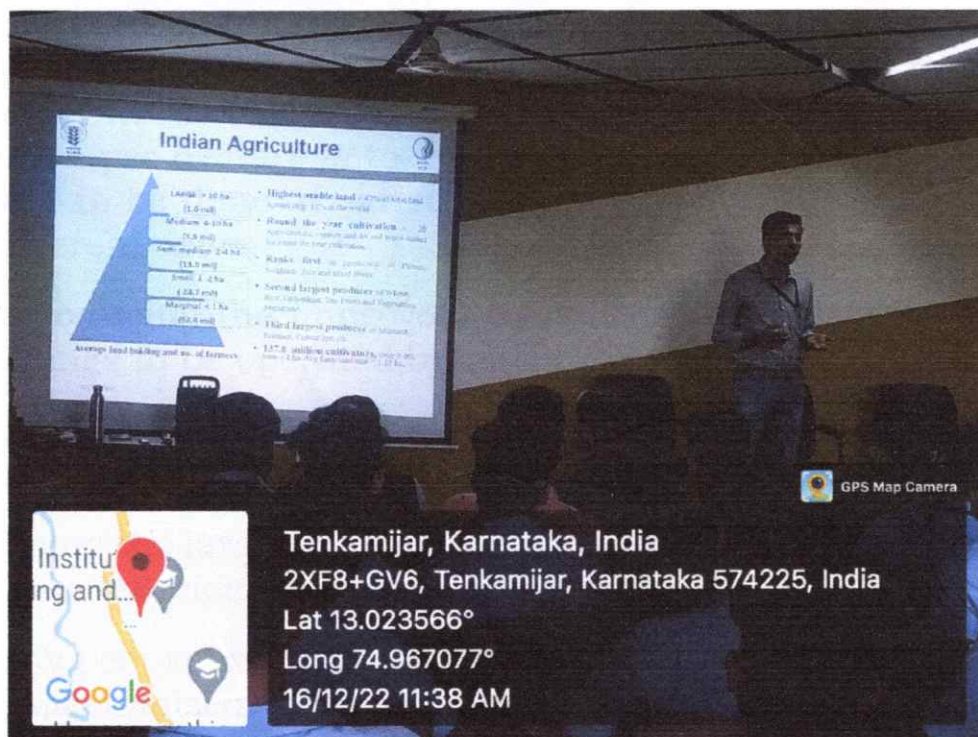
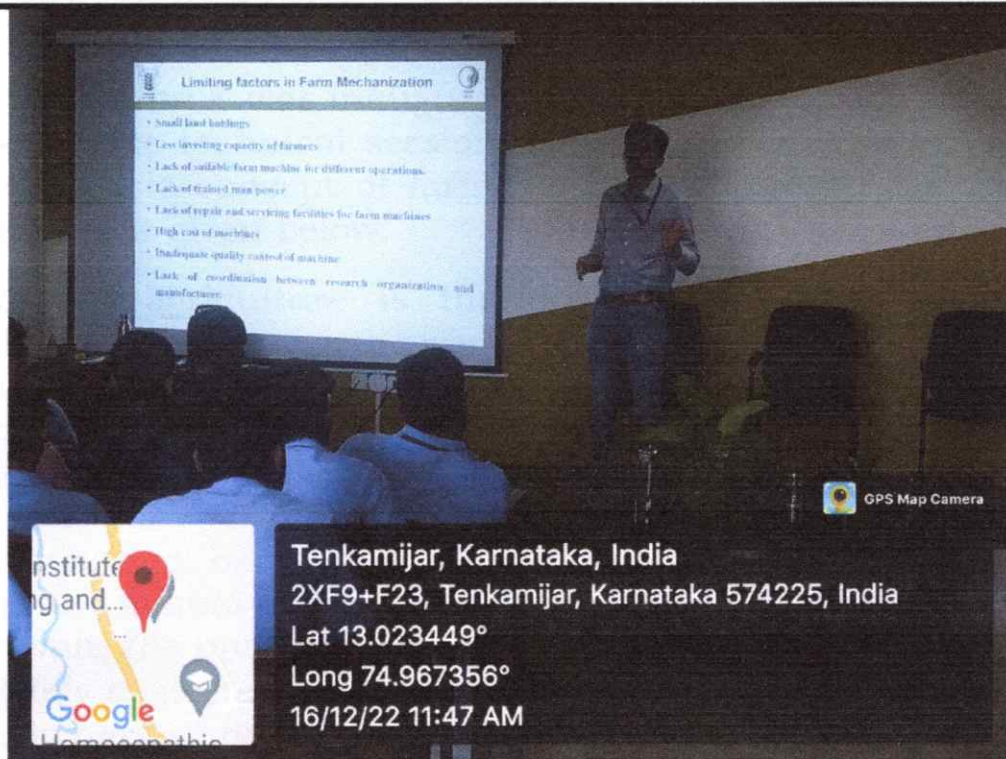
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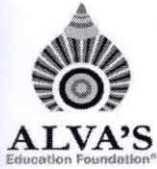
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Outcome of the event

Dr. Manjunatha K was inaugurated the Krishitech forum followed by started the technical session. He started the session starting from the basic concept of farm mechanization and his detailed explanation is given below.

Mechanized agriculture is the process of using agricultural machinery to mechanize the work of agriculture, greatly increasing farm worker productivity. The effective mechanization contributes to increase production in two major ways: firstly the timeliness of operation and secondly the good quality of work. The requirement of power for certain operations like seedbed preparation, cultivation and harvesting becomes so great that the existing human and animal power in the country appears to be inadequate. As a result, the operations are either partially done or sometimes completely neglected, resulting in low yield due to poor growth or untimely harvesting or both.

SCOPE OF MECHANIZATION

It is quite true that the Indian farmers have the lowest earnings per capita because of the low yield per hectare they get from their holdings. One of the few important means of increasing farm production per hectare is to mechanize it. Mechanization in India may have to be done at various levels. Broadly, it can be done in three different ways:

- I. By introducing the improved agricultural implements on small size holdings to be operated by bullocks.
- II. By using the small tractors, tractor-drawn machines and power tillers on medium holdings to supplement existing sources.
- III. By using the large size tractors and machines on the remaining holdings to supplement animal power source.

But many people are of the opinion that Indian agriculture cannot be fully mechanized. Only the improved animal-drawn implements should be introduced. It is felt that

1. There is a surplus of agricultural labour in India.

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2. There are enough draft animals available in the country to do the farm work effectively.
3. The size of farm holdings of the majority of the Indian farmers is too small to justify the use of a tractor on their farms.
4. The investing capacity, of the farmers is too poor to buy a tractor and tractor-drawn implements.
5. The technical know-how of the people in the country is low.
6. In the absence of suitable farm road system, the tractor and tractor-drawn machines cannot be effectively utilized under the present conditions.
7. It will not be possible to increase the yield by using mechanical power.

State of Mechanization: Agricultural system all over the world has undergone changes in terms of cropping system, type of power sources used and application of inputs to achieve high level of productivities. Even in India, mechanization of agriculture has advanced considerably. In certain region, the level of mechanization has gone far ahead of the average level in the country. Human and animal power sources are no longer the predominant sources on Indian farms. The annual addition of tractor population is more than one hundred thousand tractors. Similarly about the hundred thousand pump sets are being installed on Indian farms annually. On the basis of annually critical review of the mechanization position, one observes that the shortage of labour and high labour wages are the factors which strongly propel mechanization. Consequently, the more labour intensive operations, such as pumping of irrigation water, land preparation and threshing are the first operations, which are mechanized. Large amount labour or draft power, which can be replaced through machines, provides a strong incentive to mechanize. The farm operations, which can be categorised as:

- I. Highly power intensive operations,
- II. Intermediate power and control intensive operations,
- III. Highly control intensive operations

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SOCIAL CONSIDERATION TO FARM MECHANIZATION

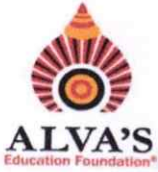
The steps towards development of an appropriate agricultural technique in India are not working with the motto of saving labour but of improving and increasing agricultural production. Most people believe that India is burdened with surplus labour and that there are far too many draft animals for the cultivation of available farmland. Above all, there is an unfounded fear that farm mechanisation will precipitate widespread rural unemployment as agriculture contributes over two-thirds of all jobs in India. The fact is however, that India's increased food requirements must be met through increased productivity of the land from higher yields and more multiple cropping which would require additional labour for carrying out different farm operations.

From the energy application point of view, the Indian agriculture is in the transition from stage 1 (human power) and stage 2 (animal power) to stage 3 and 4 (power tiller or four wheel tractor). However, animal power will co-exist with mechanical power in the country. Animal drawn machines must be provided with tiding arrangements so that walking behind the machine can be avoided.

The following can help in increasing the agricultural production in the country:

- I. Agriculture must continue to productively employ as many or more labourers per cultivated hectare in the foreseeable future.
- II. The small & scattered land holdings and the poor economic conditions of the average farmer restrict the use of units designed for large-scale mechanisation. The power tillers and related equipment, therefore, find a greater scope to be used on such farms. Power tillers attached with rotavator are better suited for puddling operations in rice growing regions.

At the end of the technical talk students come to know various agricultural machineries are being used by the farmers in India and also what are the obstacles/challenge faced by the farmers while doing the various agricultural operations and the solution to be inculcated to the farmers to overcome the challenges.



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Annexure – Original copy of

- **Permission/Request Letter** - Principal/ IQAC Chairman
- **Letter/mail correspondence with resource person** -
 - Request and Acceptance letter/mail
- **Students/faculty attendance details with signature**
- **Registration details**
- **Brochure**
- **if any**



ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY

Shobhavana Campus, Mijar, Moodbidri, D.K - 574 225

Phone : 08258-262725, Fax:08258-262726

Date: 12-12-2022

From,
The HOD
Dept. of Agricultural Engineering
AIET, Moodabidri

To,
The Principal
AIET, Moodabidri

Respected sir,

Sub: Requisition for memento, local transport and travel allowance -Reg.

With reference to the above cited subject, Department of Agricultural Engineering is going to host a **Forum Inauguration** followed by **Technical Talk** on the topic of '**Status of Farm Mechanization in India - Challenges and Way Forward**' by a resource person **Dr. Manjunatha K, Scientist, Directorate of Cashew Research, Puttur** on 16/12/2022 at 11:30 AM to 12:40 PM. In this regard, I kindly request you to guide the concerned to arrange for either local transport from puttur to the institute or travel reimbursement of Rs. 1700/- and a memento. Further, I request you to accept the budget requirement for honorarium of the puttur based resource person.

Honorarium- Rs. 2,500/-

Yours Faithfully,

HOD

Dept. of Agricultural Engineering
Alva's Institute of Engg. & Technology
Mijar, Moodubidire - 574225

PRINCIPAL

Alva's Institute of Engg. & Technology
Mijar. MOODBIDRI - 574 225, D.K



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Shobhavana Campus, Mijar, Moodbidri, D.K - 574 225

Phone : 08258-262725, Fax:08258-262726

Date: 12-12-2022

From,
The Principal
AIET, Moodabidri

To,
The Director
ICAR-Directorate of Cashew Research
Puttur

Respected sir,

Sub: Requesting to depute Scientist (Farm Machinery and Power) for delivering a
Technical talk - Reg.

I am pleased to inform you that, the Alvas Institute of Engineering and Technology, Moodabidire is one of the premier institute in Dakshina Kannada district offering B.E (Agricultural Engineering) Programme, since 2021. In this context, I take the privilege to invite Scientist having the specialization in Farm Machinery and Power as a resource person for the technical talk to be organized by the Department of Agricultural Engineering on the topic of '**Status of Farm Mechanization in India - Challenges and Way Forward**' is scheduled on 16/12/2022 at 11:30 AM to 12:40 PM in our campus. I request you to kindly accept our invitation and depute a scientist to enlighten our students by sharing his valuable professional experience.

Looking forward for your acceptance.

With kind regards, thanking you


PRINCIPAL
PRINCIPAL

Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K



(भा कृ अ प्) काजू अनुसंधान निदेशालय
दर्बे पोस्ट, पुत्तूर - 574 202, दक्षिण कन्नड, कर्नाटक

ICAR- DIRECTORATE OF CASHEW RESEARCH
Darbe P.O., Puttur - 574 202 Dakshina Kannada, Karnataka



काअनि
DCR

F.No.DCR-PME(Deputation/Resource Person)/2020

Dated: 14-12-2022

To

The Principal
Alva's Institute of Engineering & Technology
Shobhavann Campus, Mijar,
Moodabidri, D.K - 574 225

Sub: Deputation as Resource Person for delivering a technical talk on 16-12-2022-reg.
Ref: Your letter No. Nil dated 12-12-2022

Sir,

Please refer to your letter dated 12-12-2022 on the subject cited above. The competent Authority has deputed Dr. Manjunatha. K., Scientist (Farm Machinery & Power) from this Directorate as Resource Persons for the technical talk to be organized by the Department of Agricultural Engineering on the topic of "Status of Farm Mechanization in India-Challenges and Way Forward" scheduled on 16-12-2022 from 11.30 AM to 12.40 PM in their campus. This is for your kind information and needful to do further action.

Yours faithfully,

Scientist-in-charge (PME Cell)
For Director (Acting)

Copy to:

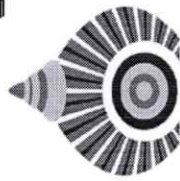
1. Dr. Manjunatha, Scientist (FM & P), ICAR-DCR, Puttur
2. Guard file

Phone: 08251-231530 (Off.); EPABX: 08251-230902, 236490; Fax: 08251-234350

Email: dircajures@yahoo.com, dircajures@gmail.com, dircajures@rediffmail.com

Website: <https://cashew.icar.gov.in>

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DEPARTMENT OF AGRICULTURAL ENGINEERING

FORUM INAUGURATION – 2022-23

Technical talk on

STATUS OF FARM MECHANIZATION IN INDIA – CHALLENGES AND WAY FORWARD

Resource Person

Dr. Manjunatha K

Scientist

Directorate of cashew Research

Puttur



Venue: Civil Seminar Hall




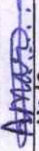
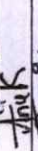




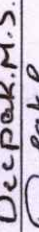





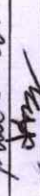
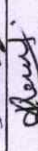
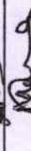

Date: 16/12/2022

Internal Quality Assurance Cell (IQAC)

Department of Agricultural Engineering

Technical Talk

Student's details -

Sl.No	USN	Student Name	Semester	Signature
1	4AL21AG001	A BHOOMIKA REDDY	III	
2	4AL21AG002	ABHISHEK K S	III	
3	4AL21AG003	AJITH MALI PATIL	III	
4	4AL21AG004	AMARNATH I	III	
5	4AL21AG005	ANANYA K	III	
6	4AL21AG006	CHAITRA	III	
7	4AL21AG007	CHANDAN B M	III	
8	4AL21AG008	CHANDU S	III	
9	4AL21AG009	CHEETHAN P	III	
10	4AL21AG010	DEEPAK M S	III	
11	4AL21AG011	DEEPAK R	III	
12	4AL21AG012	H P Y SACHIN	III	
13	4AL21AG013	HAHEEL NIYAZ	III	
14	4AL21AG014	JEEVAN KUMAR H N	III	
15	4AL21AG015	K A PREKSHA	III	
16	4AL21AG016	KEERTHAN ALVA	III	
17	4AL21AG017	KEERTHANA M RAM	III	
18	4AL21AG018	KIRAN V	III	
19	4AL21AG019	MANASI ANILRAO PAPPAL	III	



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20	4AL21AG020	MANSOOR P E	III	
21	4AL21AG021	MONISHA S	III	
22	4AL21AG022	NAGASHREE N	III	Nagashree N
23	4AL21AG023	NAVYA K	III	
24	4AL21AG024	POORNACHANDRA	III	
25	4AL21AG025	PRANEETH	III	P. A. 9d
26	4AL21AG026	REGAN AIDON SILDANHA	III	
27	4AL21AG027	SAHANA M GOWDA	III	
28	4AL21AG028	SANTHOSH M	III	Santhosh M
29	4AL21AG029	SAWAN SHETTY	III	
30	4AL21AG030	SHREEHARSHA K S	III	
31	4AL21AG031	SNEHA M	III	
32	4AL21AG032	SUSHA S SHETTY	III	
33	4AL21AG033	SUTHEEJ	III	
34	4AL21AG034	TARUN K	III	
35	4AL21AG035	TEJASKUMAR	III	
36	4AL21AG036	USAMA MEHABOBSAB KOPPAL	III	

Total No. of students participated -

HOD

IQAC Coordinator

IQAC Chairman
Alva's Institute of Engg. & Technology,
Mijar. MOODBIDRI - 574 225, D.K



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Internal Quality Assurance Cell (IQAC)

Department of Agricultural Engineering

Technical Talk

Faculties details -

Sl.	Faculty Name	Designation	Signature
1.	Deepak Kolake	Asst. Professor.	
2.	Dr. Shashikumar	Assoc. Professor	

Total No. of faculties participated -

HOD

IQAC Coordinator

IQAC Chairman

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Department of Agricultural Engineering

Feedback Form – Technical Talk

Name of the student: Preksha

Student USN: UAL21A0015

Semester: III

Date of Technical Talk: 16/12/2022

Name of the Organization: AJET, MIJAR

Directions:

For each item please indicate your level of satisfaction by ticking the following statement by choosing a score between 1 and 5.

[Excellent – 5, Very Good – 4, Good – 4, Average – 2, Below Average – 1]

Sl. No.	Statement	5	4	3	2	1
1.	The Technical Talk was technology oriented	5				
2.	The Technical Talk was applicable to your future needs			3		
3.	Technical Talk is enhanced your skills		4			
4.	The program was well placed within the allotted time	5				
5.	The Technical Talk delivered skill of a resource person		4			
6.	The material was presented in an organized manner			3		
7.	would you interested in attending such talks in future	5				
8.	Any suggestions for further improvement : <u>more expertised resource person needs to be invited</u>					

Preksha
Signature of the student