



TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

(Dept. of Higher Education, Govt. of Tamilnadu)
DOTE CAMPUS, CHENNAI - 600 025

and



AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY (AVIT)

VINAYAKA MISSION'S RESEARCH FOUNDATION

Deemed-to-be-University

SUTHANTHIRA THEUNAI AMUDILA PERUVIZHA
TAMIL NADU



PROGRAM COMPLETION REPORT

By the Catalysed and support of TNSCST

Under the Scheme of Dissemination of Innovative Technology 2019-20

&

Department of Civil Engineering- AVIT, Chennai

Jointly organize

Three days

**“Short term awareness and training program on Eco-friendly
Starch based Green plastic”**

21-23 Dec, 2021

Venue- AVIT Campus, Chennai

ABOUT PROGRAM

Tamilnadu State council for Science and technology, Chennai have offer a platform every year for finding the Innovative technologies will be disseminated by our state's educational/research institutions through a training/workshop programme for the benefit of target groups such as farmers, fishermen, and women, as well as members of self-help groups and others. A sum of Rs.50, 000/- could be provided for a single programme with 25 to 50 beneficiaries and a duration of 3-5 days.

Under this scheme, for the fiscal year 2019-2020, Our proposal was selected by the TNSCST, on the Topic **“Short term Awareness and Training program on Eco Friendly starch based Green Plastic”** for the amount of Rs.50,000/- .The main objective of this program is Creating Awareness Training Program for Self-help group people approximately 50 members, especially the Women under below poverty line. By knowing the manufacturing steps of Green Plastic it may help those people to generate good reliable revenue in rural region with the waste materials generated in their locality with truncated investment.

Through this program by creating the awareness and Training for manufacturing the bioplastics from Green waste make it possible to develop innovative, substitute solutions compared to conventional plastics. Even more, bio-based plastics reduce dependence on fossil resources at the same time as improving a product's carbon footprint. Biodegradable plastics allow improved end-of- life circumstances for disposal and salvaging. This may reduce the burden on our obtainable waste systems and also the environment. The packaging industry is currently the largest user of bioplastics, but there are many other suitable applications possible, and consumers are progressively concerned in substitute bio solutions.

Acknowledgement

We take this opportunity to express our gratitude and sincere thanks to Honourable **Dr.R.SRINIVASAN**, Member Secretary and **Prof.V.RAMASAMI** of Tamilnadu State council for Science and technology (TNSCST), Chennai for Providing this valuable opportunity to us and to provide all the catalysed and support extended to us during the tenure of this Program.

We would like to thanks to our Honourable Chancellor **Dr.A.S.GANESAN** and Madam Chancellor **Dr. ANURADHA GANESAN**, Director, VMRF Trust for their constant encouragement.

We take immense pleasure in conveying our sincere thanks to our Principal **Dr.G.Selva Kumar, Ph.D**, for giving us the support to conduct this Program.

We express our profound gratitude and heartfelt thanks to **Dr.S.P.SANGEETHA, Ph.D., Vice Principal(Academics)** and **Prof.L.PRABHU, Vice Principal(Administration)** for their support and giving consent to conduct the program successfully.

We are extremely grateful to our Head of Department, **Dr.R.Divahar** for his constant guidance and valuable suggestions.

We are very happy and extend our heartfelt thanks to the beneficiaries who are participated in this program from the villages of Paiyanoor, Irumbuli and kothimangalam of Chengalpet district, Tamilnadu

We would like to thank all teaching and non-teaching staff of Civil Engineering Department and Administration Department of Our institute for their support and encouragement given to us.

Program Invitation & Schedule



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75th Anniversary Logo



AVIT
AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY



**VINAYAKA MISSION'S
RESEARCH FOUNDATION**
Deemed to be University under section 3 of the UGC Act 1956

Cordially invite you all for the

THREE DAYS

**SHORT TERM AWARENESS AND TRAINING PROGRAM ON
ECO FRIENDLY STARCH BASED GREEN PLASTIC**

catalyzed and supported by

Tamilnadu State council for science and technology Chennai

Under the scheme of "Dissemination of Innovative Technology (DIT) programme"

Date : 21.12.2021 to 23.12.2021

Time : 10.00 am onwards

Venue : AVIT Indoor Auditorium

CHIEF GUEST

Mr. T. S. SHANKAR

Director - Biotech Bags India Pvt. Ltd.,
Chennai

PRESIDENTIAL ADDRESS

Dr. G. SELVAKUMAR

Principal - AVIT

FELICITATION ADDRESS

Dr. S.P. SANGEETHA, VP (Academics), AVIT

SPECIAL ADDRESS

Prof. L. PRABHU, VP (Admin.) - AVIT

WARM WELCOME

Dr. R. DIVAHAR, HoD / Civil - AVIT

Mr. D. PARTHIBAN, AP / Civil - AVIT., DIT Co-ordinator



THREE DAYS SHORT TERM AWARENESS AND TRAINING PROGRAM ON ECO FRIENDLY STARCH BASED GREEN PLASTIC

PROGRAMME AGENDA

Day 1 (21.12.2021)

- | | |
|----------|--|
| 10:00 am | Invocation |
| 10:02 am | Welcome Address

Dr. R. Divahar, HOD-Civil |
| 10:05 am | Presidential Address

Dr. G. Selvakumar,
Principal-AVIT |
| 10:10 am | Felicitation Address

Dr. S.P. Sangeetha.,
Vice Principal (Academics), AVIT |
| 10:15 am | Special Address

Prof. L. Prabhu.,
Vice Principal (Admin.), AVIT |
| 10:20 am | Knowledge sharing session on Plastic and it's types

Dr. C. Vaidevi.,
AP (Gr-II) - Civil |
| 12.30 pm | Lunch Break |
| 01.30 pm | Manufacturing Process of Bio Plastic
(practical Demonstration)

Mr. D. Parthiban.,
AP (Gr-I) - Civil |

THREE DAYS SHORT TERM AWARENESS AND TRAINING PROGRAM ON ECO FRIENDLY STARCH BASED GREEN PLASTIC

PROGRAMME AGENDA

Day 2 (22.12.2021)

10.00 am Importance of Finding alternative for synthetic plastic

Dr. P.S. Aravindraj,,
Asso. Prof. - Civil

01.00 pm Problem of Disposal and Demerits of synthetic plastic

Dr. B. Praba Sheela
Asso. Prof. / Biotech

Day 3 (23.12.2021)

10.00 am Application area and Marketing Strategy of
Bio Plastic Products

Mr. T. S. Shankar
Director - Biotech Bags India Pvt. Ltd., Chennai

01.00 pm Valedictory Function & Vote of Thanks

Program Details

Day -01

Session 1- Inauguration & Registration of Participants

Date- 21-12-2021

Venue- Indoor Auditorium (Fore noon)

The inaugural function of this Three-day short-term awareness and training programme began with the "Lighting of the Lamp" and "Tamil Thai Valthu". Then, our Head of the Department, Dr.R.Divahar/Associate Professor have delivered the welcome address and invited the guests and gathering to this programme. Following him, our Respected Principal, Dr.G.Selva Kumar, Professor, AVIT, have delivered the Presidential address, in which he expressed his heartfelt gratitude to TNSCST for providing this opportunity and he introduced the Program's chief guest, and explained to the beneficiaries about the importance of attending the programme. Then, our Vice Principal, Dr.S.P.Sangeetha (Academics), delivered the felicitation address, in which she stressed the importance of women's employment and the opportunities available for their welfare in front of the beneficiaries. Vice Principal Prof.L.Prabhu (Administration) delivered a special address in front of the gathering, emphasising the critical role of women's welfare in the country's overall well-being. Then, as part of the registration process, a refreshment break was announced.

Glimpse of Session 1



Lightning of Divine lamp by one of the invited beneficiary



Tamil Thai Valthu



Presidential address by our Principal



Beneficiary Registration

Day -01

Session 2- Synthetic Plastic and its types

Date- 21-12-2021

Venue- Indoor Auditorium (Fore noon)

After short refreshment, the session 2 has been delivered by Dr.C.Vaidevi, Associate Professor. She shares her 7 years research knowledge and experience to the beneficiaries regarding synthetic plastic. In this session, the topics such as plastic, types, how to identify a type of plastic, classification of different plastics, raw materials of synthetic plastic and what type of plastic should avoid completely are discussed with suitable practical/ real life examples. Through this session, the beneficiaries have received the awareness of evacuating synthetic plastic completely from our society. After the session 2 the special lunch has been arranged and provided for the beneficiaries in the canteen of AVIT

Glimpse of Session 2





Day -01

Session 3- Basic steps of preparing Starch based bioplastic Raw materials

Date- 21-12-2021

Venue- Indoor Auditorium (After noon)

The session 3 was started after the Special lunch, In this session, with the guidance of Mr.Karunakaran, Director, Sri Sai biobags Pvt., Ltd., Kanchipuram with Mr.D.Parthiban, Assistant Professor- AVIT, have demonstrate the Basic steps of preparing Starch based bioplastic raw materials using the natural starch materials which are extracted from the Tapioca, Potato and Corn. In this session, the method of extracting starch powder in the home and the method of manufacturing raw materials by amalgamating the natural starch materials and harmless solvents are explained practically in front of beneficiaries. Also the raw material “Bioplastic beadings” samples and bioplastic food packaging samples were given to the beneficiaries for their self-practice and realization. Additionally, the marketing demand of bioplastic raw material supply to the product industry has been discussed with the beneficiaries by the expert. Through this session, the beneficiaries have understand how the bioplastic products are manufactured.

Glimpse of Session 3





Day -02

Session 4- Importance of Finding alternative solution to dispose synthetic plastic

Date- 22-12-2021

Venue- Department Seminar Hall and Concrete Laboratory (Fore noon)

In Day 2, Session 4, the Importance of Finding alternative solution for effective dispose and utilization of synthetic plastic was delivered by Dr.P.S.Aravindraaj, Associate Professor and Director of Thangam Construction, Chennai. In this session, the guest has expressed his 8 year of Research and field knowledge of producing sustainable construction materials. During this session, the beneficiaries are learned the method of producing various construction related materials by utilizing the scarped synthetic plastic materials in effective way and discuss the marketing demand and opportunities of those products for the welfare of the rural people. Follow by this, the beneficiaries are bring to the concrete laboratory to visit the current student research Projects on preparing and testing the wall blocks using thrown pet bottles and cement paver blocks using scraped micro plastics.

Glimpse of Session 4





Hollow blocks using pet bottles



Cement Paver blocks using Scrap plastics

Day -02

Session 5- Problems of Improper disposal of synthetic plastic in ecosystem

Date- 22-12-2021

Venue- Department Seminar Hall and Concrete Laboratory (After noon)

In Day 2, Session 5, the Problems of Improper disposal of synthetic plastic in ecosystem was delivered by Dr.B.Prabasheela, Associate Professor- Department of Biotechnology. In this session, the guest have expressed her 10 year of Research experience in the field of biodegradable women health and sanitation products with the beneficiaries. During this session, she efficiently lecture the demerits of improper disposal of scraped synthetic plastic in our ecosystem as detail. Additional with that, she shared his present research work on developing low cost eco-friendly women sanitation products. Through this session, the beneficiaries have understand how the bioplastic products are utilized in medical sector other than packaging industry.

Glimpse of Session 5





Day -03

Session 6- Application and Marketing strategies of bioplastic

Date- 23-12-2021

Venue- Indoor Auditorium-AVIT (Fore noon)

In Day 3, Session 6, the Application and Marketing strategies of bioplastic was delivered by Mr.T.S.Shankar, Director, Biotech, Bags India Pvt., Ltd., Chennai. In this session, the Chief guest was welcomed by the Head of Department Dr.R.Divahar, Associate Professor. After that chief guest Mr.T.S.Shankar have shared his 16 year of field experience in bioplastic products and marketing techniques with the beneficiaries. During this session, he competently lectures the different application area of bioplastic and the government support plans for the manufacturing and exporting of bioplastic based products. Additional with that, he shared his present research Proposal work applied with Central ministry of petrochemicals. Through this session, the beneficiaries have understood how the bioplastic products are utilized in different sector and marketing opportunities available both in India and abroad.

Glimpse of Session 6





Day -03

Session 7- Feedback, Valedictory and Certificate Distribution

Date- 23-12-2021

Venue- Indoor Auditorium-AVIT (After noon)

In Day 3, Session 7, the doubt session was organized with feedback followed by valedictory and certificate distribution. The beneficiaries are welcomed to clarify their doubts with the invited chief Guest. In this session, the beneficiaries have share their 3 days experience in this awareness training program and their willingness to attend the training program like this in future and the vote of thanks was delivered by DIT-Coordinator Mr.D.Parthiban and the program was concluded with National anthem.

Glimpse of Session 7

Feedback from the beneficiaries





Model certificate



தமிழ்நாடு அறிவியல் தொழில்நுட்ப மாநில மன்றம்

(உயர்கல்வித் துறை, தமிழ்நாடு அரசு)

DOTe-தொழில்நுட்ப கல்வி இயக்க வளாகம், கிண்டி, சென்னை 600025
மற்றும்

ஆறுபடை வீடு பொறியியல் கல்லூரி (AVIT), சென்னை
(விநாயகா மிஷன் ஆராய்ச்சி நிறுவனம் - நிகர்நிலை பல்கலைக்கழகம்)



பங்கேற்பு சான்றிதழ்

தமிழ்நாடு அறிவியல் தொழில்நுட்ப மாநில மன்றத்தின் ஊக்குவிப்பு மற்றும் ஆதரவுடன், கட்டுமான பொறியியல் துறை, AVIT இணைந்து நடத்தும் 'சுற்றுச்சூழலுக்கு உகந்த மாவுச்சத்து அடிப்படையிலான பசுமை நெகிழி உருவாக்க குறுகிய கால விழிப்புணர்வு மற்றும் பயிற்சித் திட்டம் (Short term awareness and training program on Eco-friendly starch based green plastic)' என்ற தலைப்பில் புதுமையான தொழில்நுட்பத்தை பரப்புதல் [DIT] திட்டத்தில் திரு / திருமதி _____ என்பவர் 2021 டிசம்பர் 21 முதல் 23 வரை பங்கேற்றுள்ளார் என்பதற்கான சான்றிதழ்.

DIT - ஒருங்கிணைப்பாளர்

கல்லூரி முதல்வர்
(AVIT - Chennai)

Dr. R. முனிவாசன்
உறுப்பினர் செயலாளர், (TNSCST)



Certificate distribution to the beneficiaries







Group Photo



News glimpse



செங்கல்பட்டு மாவட்டம், திருப்போரூர் அடுத்த பையனூரில், தமிழ்நாடு அறிவியல் மற்றும் தொழில்நுட்ப மாநில மன்றத்தின் ஊக்கம் மற்றும் ஆதரவுடன் ஆறுபடை பொறியியல் கல்லூரியில் கட்டுமான பொறியியல் துறை இணைந்து நடத்திய கிராமப்புற பெண்களின் முன்னேற்றத்திற்கான மூன்று நாள் விழிப்புணர்வு பயிற்சி முகாம் 'சுற்றுச்சூழலை பாதிக்காத மாவுச்சத்து அடிப்படையிலான பசுமை பிளாஸ்டிக்' என்ற தலைப்பில் 2021, டிசம்பர் 21 முதல் 23 வரை நடைபெற்றது. இந்நிகழ்ச்சியில் பயோடெக் பாக்ஸ் இந்தியா பிரைவேட் லிமிடெட் இன் இயக்குனர் டி.எஸ்.ஷங்கர் சிறப்பு விருந்தினராக பங்கேற்றார். உடன் கல்லூரியின் முதல்வர் முனைவர் ஜி.செல்வகுமார் மற்றும் துறை முதல்வர்கள் முனைவர் எஸ்.பி. சங்கீதா மற்றும் பேராசிரியர் எல்.பிரபு மற்றும் துறைத்தலைவர் ஆர்.திவாகர் மற்றும் பயிற்சி ஒருங்கிணைப்பாளர்களான உதவிப் பேராசிரியர்கள் டி.பார்த்திபன் மற்றும் ஆர்.சஞ்சய் குமார் மற்றும் துறை ஆசிரியர்கள் மற்றும் கிராமப்புற பெண்கள் ஆகியோர் உடனிருந்தனர்.

தமிழ்சுடர்

Summary of Program

Name of Program sanctioned for Fund	Short term awareness and training program on “Eco friendly starch based green plastic”
Name of Supporting agency	Tamilnadu state council for science and technology [TNSCST], Chennai
Name of scheme	Dissemination of Innovative Technology [DIT- 2019-2020]
Amount Sanctioned in Rs.,	Fifty Thousand Rupees only [Rs.50,000/-]
Details of Co-ordinator	1. Mr.D.Parthiban, AP-Civil, Principal investigator 2. Mr.R.Sanjay kumar- AP-Civil, Co- Principal investigator
Duration of Program planned	Three days

Details of beneficiary	Rural women's from the village of Paiyanoor, Kothimangalam and Irumbuli of Chengalpet District, Tamilnadu
No.of. Beneficiary participated	50 persons
Date of Program	21-12-2021 to 23-12-2021
Status of Program	Completed

Beneficiary details

வரிசை எண்	பங்கேற்பாளரின் பெயர்	கிராமம்
1	நிர்மலா M	பையனூர்
2	இரத்தின குமாரி V	பையனூர்
3	சாரதா R	பையனூர்
4	சுந்தரி C	பையனூர்
5	கண்ணம்மாள் M	பையனூர்
6	இருதய மேரி N	பையனூர்

வரிசை எண்	பங்கேற்பாளரின் பெயர்	கிராமம்
7	சுந்தரி T	பையனூர்
8	சகுந்தலா M	பையனூர்
9	லட்சுமி B	பையனூர்
10	சகுந்தலா K	பையனூர்
11	விஜயா V	பையனூர்
12	அஞ்சலை P	பையனூர்
13	நாக வள்ளி M	பையனூர்
14	ராஜம் D	பையனூர்
15	கஜேந்திரி J	பையனூர்
16	சுதா K	இரும்புலி

வரிசை எண்	பங்கேற்பாளரின் பெயர்	கிராமம்
17	மஞ்சளா P	இரும்புலி
18	விமலா G	இரும்புலி
19	உதயநிலா R	கொத்திமங்கலம்
20	தமிழினி P	கொத்திமங்கலம்
21	ருக்குமணி M	கொத்திமங்கலம்
22	ராணி K	கொத்திமங்கலம்
23	சோனியா காந்தி B	கொத்திமங்கலம்
24	சிவகாமி B	கொத்திமங்கலம்
25	மஞ்சளா S	கொத்திமங்கலம்
26	சாந்தி S	கொத்திமங்கலம்

வரிசை எண்	பங்கேற்பாளரின் பெயர்	கிராமம்
27	சின்ன பொண்ணு S	பையனூர்
28	அலமேலு K	மடமை
29	பாப்பா A	பையனூர்
30	செல்வி R	பண்டிதமேடு
31	மகாலக்ஷ்மி E	பையனூர்
32	சல்சா P	பையனூர்
33	மல்லிகா M	பையனூர்
34	மோகனா R	பையனூர்
35	சுந்தரி M	பையனூர்
36	எழில் அரசி M	பையனூர்

வரிசை எண்	பங்கேற்பாளரின் பெயர்	கிராமம்
37	சுகன்யா S	கொத்திமங்கலம்
38	ஜெயலக்ஷ்மி P	கொத்திமங்கலம்
39	காயத்ரி S	கொத்திமங்கலம்
40	விநாயசி	கொத்திமங்கலம்
41	வெண்ணிலா E	கொத்திமங்கலம்
42	விஜயசாந்தி	கொத்திமங்கலம்
43	ஜோதிகா	கொத்திமங்கலம்
44	லோக நாயகி.B	கொத்திமங்கலம்
45	ஜெமிமா V	கொத்திமங்கலம்
46	ரோஸி. S	கொத்திமங்கலம்

வரிசை எண்	பங்கேற்பாளரின் பெயர்	கிராமம்
47	வசந்தா. V	கொத்திமங்கலம்
48	அஞ்சலம் G	கொத்திமங்கலம்
49	திரிபுர சுந்தரி G	கொத்திமங்கலம்
50	துளசி R	கொத்திமங்கலம்

Expenditure Details

Sl.No	Details of Expenditure	Amount spend in Rs.,
1	Chemicals, Raw material and product samples of bioplastic	7,000/-
2	Stationary kit for beneficiaries	3,000/-
3	Breakfast, Lunch and Refreshment	16,000/-
4	Honorarium for resource persons	10000/-
5	Transportation charges for the beneficiaries	2000/-
6	Lodging and boarding of chief guest	2000/-
7	Printing of certificates and Banner	5000/-
8	Miscellaneous (Report, Photo album and news glimpse)	2954/-
9	Institutional and laboratory charge	1500/-
Total Expenditure in Rs.,		49,454/-

Declaration

I solemnly declare that all the above information is correct to the best of my knowledge and belief

Signature of DIT-Coordinator