



SRI VENKATESWARA COLLEGE OF ENGINEERING
(an Autonomous Institution affiliated to Anna University,
Chennai)



Pennalur, Sriperumbudu Tk – 602 117

DEPARTMENT OF CIVIL ENGINEERING

Report of the Webinar on “Plastic Waste Management”

Date: 26th July 2020, Sunday

Time: 11.00 a.m. – 12.00 p.m.

Mode: Online through Google meet

Meeting Link: <https://meet.google.com/eoo-ukhf-eqv>

Speaker

Dr. E. RAVINDRANATH

Technical Director

Chennai Environmental Management Company of Tanners (CEMCOT)

Chennai

Coordinator

Mr.R.Mathiyazhagan

Assistant Professor/Civil Engineering

Convenor & Organising Secretary

Dr.R.Kumutha, Professor & Head/Civil Engg.

Target Audience: UG and PG Students, Faculty members, Research Scholars and Industry persons

Number of Participants benefited: 75

UG Students: 41

PG Students: 3

Research Scholar: 3

Faculty: 28

BROCHURE



SRI VENKATESWARA COLLEGE OF ENGINEERING **DEPARTMENT OF CIVIL ENGINEERING**



Cordially invites you for a Webinar on
“PLASTIC WASTE MANAGEMENT”



Speaker

Dr. E. RAVINDRANATH M.E., M.S., Ph.D
Technical Director
Chennai Environmental Management
Company of Tanners (CEMCOT), Chennai

25th July 2020

11 a.m to 12.00 p.m

Registration link:

<https://forms.gle/v8U7CUw3XtdiJ6Dd9>

Coordinator
Mr.R.Mathiyazhagan
Assistant Professor/Civil Engineering

Convenor
Dr. R. Kumutha
Professor & Head /Civil Engineering

PROFILE OF Dr. E. RAVINDRANATH

He did his B.Tech in Civil Engineering from Jawaharlal Nehru Technological University (J.N.T.U), Hyderabad, M.E in Public Health Engineering from College of Engineering Guindy, M.S in Civil Engineering from South Dakota School of Mines and Technology, USA then PhD in Environmental Engineering from Anna University.

He has published around 83 papers including both national and international journals and conferences. He is also having 3 National patents and 1 international patent in his name.

He is associated with professional bodies like Indian Water Works Association, Indian Environmental Association, Institute of Engineers, India, Institute of Public Health Engineers, Indian congress Institute, Indian Association for Environmental Management,

His experience includes Madras Metropolitan Water Supply and Sewerage Board, Chennai, National Environmental Engineering Research Institute (NEERI), Nagpur, Coromandel Engineering Company, Chennai, 20 + years in CSIR- Central Leather Research Institute, Chennai and retired as Chairman, Works and Head, Engineering Service. He then worked as Professor and Head at Sri Venkateswara College of Engineering 2015 -18.

Currently he is the technical director, Chennai Environmental Management company of Tanners (CEMCOT), Chennai as well as a Freelance Consultant for implementation of projects under NMCG at Solidaridad, The Netherlands.

His work includes R&D projects for treatment of liquid and solid waste generated from tanneries, Implementation and upgradation of effluent treatment plants, Treatability studies for tannery wastewater, Implementation of full scale UASB reactors in Dindigul, Perundurai and Kunoor for tannery wastewater, Implemented Common Effluent Treatment Plants in Kolkata, Jalandhar, Ranipet, Vanyambadi etc for tannery sector, Design, detail engineering and implementation of Secured Landfills with patented technology of CLRI, Treatability studies on application of membrane coupled bioreactors for treatment of wastewater and arriving kinetic parameters for implementation in full scale wastewater treatment plants, Application of Membrane Systems for recovery of water from treated wastewater, Quality Control & Quality assurance in project activities, Anaerobic co-digestion of solid waste & bio-energy generation; arriving kinetic parameters for solid waste generated in tannery sector, Remediation and eco-restoration of chromium contaminated water resources and soil

He has taken classes for M.E Environmental Engineering and Environmental Management in CEG, B Tech civil Engineering at IIT M, B Tech and M Tech leather technology.

He has delivered lectures in many programs conducted by CSIR-CLRI, Tamilnadu Water Supply and Drainage Board, National Productivity Council, Chennai, Engineering Colleges, Leather Associations, Chennai Metropolitan Water Supply and Sewerage Board and programs sponsored by CPHEEO, Central Pollution Control Boards. Also Delivered lectures on “Operation and Maintenance of Pre-treatment Systems in Individual Tanneries – in Ethiopia, Vietnam and Botswana”

BRIEF REPORT OF THE WEBINAR

The webinar started with a welcome note by **Dr.R.Kumutha**, Professor & Head/ Civil Engineering & Convenor of this Program and the introduction of the speaker to the Participants by **Mr.R.Mathiyazhagan**, Assistant Professor/Civil Engineering. **Dr.E.Ravindranath** started with showing the different types of plastics used in our day today life. He has explained what is plastic, different classification of plastic, impact of plastic on marine environment, impact of uncontrolled open burning, impact on animals and impact on human health. He has also explained the recycling facilities available for management of plastic waste and use of plastic wastes for road construction.

The following queries were raised by the participants which were answered by Dr.E.Ravindranath

1. What are the methods available to convert plastic waste into fuels?
2. Are there any facilities available to convert plastic waste into fuels in Tamilnadu?
3. What are various methods available for converting waste to energy?
4. How can we dispose e-waste from our home?
5. Why the incineration method is not used effectively in India since we are generating power?
6. How far is the leachability issue of plastic used in roads in long run? Are there any studies done so far taking long term implications even though the plastic improves the bitumen properties in short term?
7. Why is segregating plastic waste in Chennai not very successful widely, though it is adopted in some places?
8. How plastic ban can be implemented in India?

The session ended with a vote of thanks delivered by **Ms.R.Yamini, Final Year Student**, Department of Civil Engineering. The participants also had appreciated the webinar.

SNAPSHOTS OF THE WEBINAR

Webinar on Plastic Waste Man... X

RAVINDRANATH ETHIRAJULU is presenting

People (32) 22 Chat (10)

- Dr. A. BHASKARAN, SVCE

HOD Civil SVCE 10:58 AM
good morning all
Welcome you all for this Webinar

Dr.VENKATESWARA RAO P CVE 10:59 AM
Good morning sir

HOD Civil SVCE 10:59 AM
I request all the participants to mute ur mics

Welcome to our Speaker Dr. E. RAVINDRANATH M.E., M.S., Ph.D Technical Director
Chennai Environmental Management Company of Tanners (CEMCOT), Chennai

PONRAM PONNIAH 11:00 AM
O.K. THANK YOU Madam

HOD Civil SVCE 11:00 AM
I request all the participants to switch off your video also

Send a message to everyone

PLASTIC WASTE MANAGEMENT

DR. E. RAVINDRANATHI

TECHNICAL DIRECTOR
CHENNAI ENVIRONMENTAL MANAGEMENT COMPANY OF TANNERS
FORMER CHIEF SCIENTIST FROM CSIR-CLRI CHENNAI

PONRAM PONNIAH has left the meeting

DEVASAGAYAM G ACH

REC RAVINDRANATH ETHIRAJULU is presenting

Webinar on Plastic Waste Man... X

People (70) 72 Chat (20)

HOD Civil SVCE 11:08 AM
Welcome Dr.Sudha Madam

HOD Civil SVCE 11:12 AM
At the end of the session Feedback link will be posted in this Chat box.
Link will be active only for 5 minutes.
E-certificates will be sent to the participants after submitting feedback form.

BHASKARAN A AP 11:13 AM
Sir,
Please touch about "Biodegradable plastics" also.....

HOD Civil SVCE 11:14 AM
Dear Participants, if you have any questions , you can kindly post them in the Chat box, which will be discussed at the end of the session

BHASKARAN A AP 11:38 AM
Bio-accumulation ----> Bio- magnification
.....

Send a message to everyone

63

Bitumen Road (without Plastic)

Plastic Road

Deformation Found

Cracking Found

Pot Holes Found

No Edge Flow

No Pot Holes

No Deformation

No Cracking

Plastic Road








Bitumen Road

DEVASAGAYAM G ACH

SNAPSHOTS OF THE WEBINAR

4

Classification based Resin identification code

-  **Code 1: PET** (polyethylene terephthalate)
-  **Code 2: HDPE** (high density polyethylene)
-  **Code 3: PVC** (polyvinylchloride)
-  **Code 4: LDPE** (low density polyethylene)
-  **Code 5: PP** (polypropylene)
-  **Code 6: PS** (polystyrene)
-  **Code 7: Other plastics** including polycarbonate, acrylic, liquid crystal polymers (LCP) and nylon.








RAVINDRANATH ETHIRAJULU

21

Great Pacific Garbage Patch Floats On

Microplastics account for **94%** of plastics in the Great Pacific Garbage Patch

Distribution of ocean microplastics sources worldwide as of 2018*

-  **35.0%** Synthetic textiles
-  **28.0%** Car tires
-  **24.0%** City dust
-  **7.0%** Road markings
-  **3.7%** Marine coatings
-  **2.0%** Personal care products
-  **0.3%** Plastic pellets

Size of Great Pacific Garbage Patch compared to other areas in square kilometers

Great Pacific Garbage Patch **1,600,000***

The Garbage Patch is...

- 2.3** times bigger than Texas
- 2.5** times bigger than France
- 725** times bigger than largest landfill, Apex Regional
- 2,040** times bigger than New York City

* Rounded

RAVINDRANATH ETHIRAJULU

SNAPSHOTS OF THE WEBINAR

Plastic Pollution: Health and Environmental Impact

Study Finds Microplastics In 93% Of Bottled Water

Lowest & highest number of plastic particles found per liter of bottled water (location & brand)

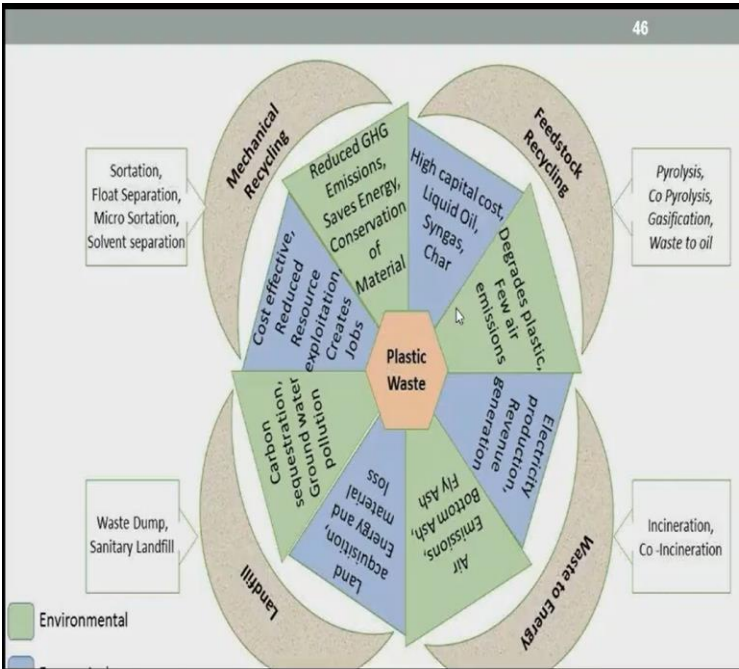


325
Average number of plastic particles for every litre of water sold

n=259 bottles from 11 brands across nine countries. Plastic discovered included polypropylene, nylon, and



RAVINDRANATH ETHIRAJULU



RAVINDRANATH ETHIRAJULU

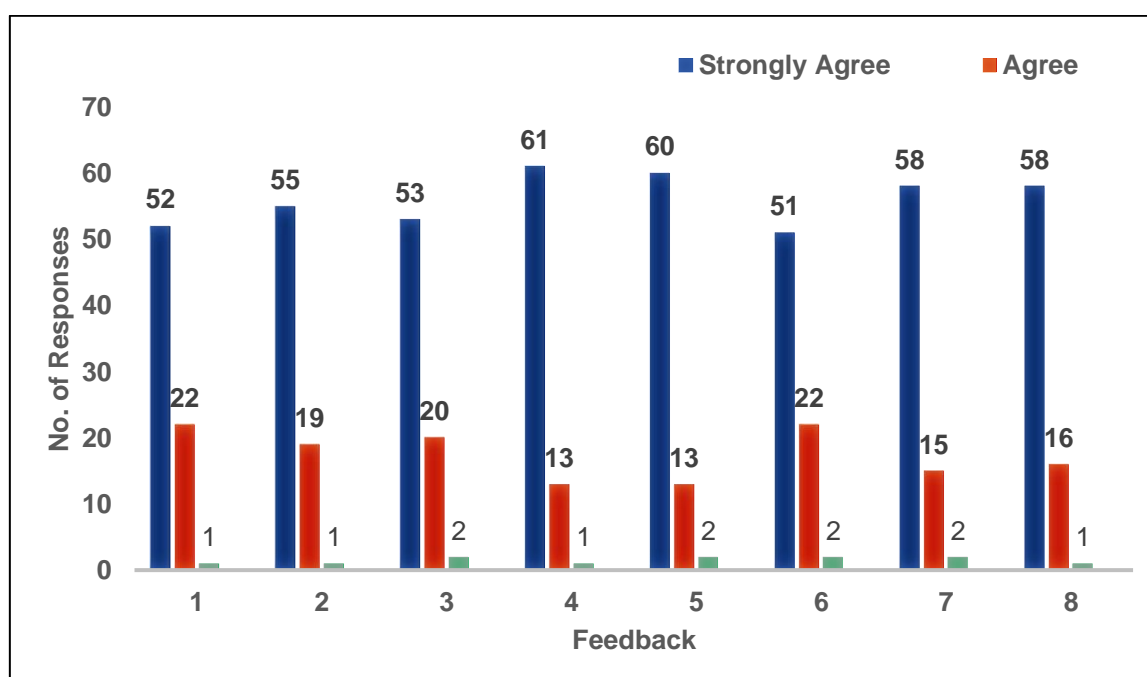
LIST OF PARTICIPANTS

S.No	Name of the Participant	Name of the Institution/Industry	Category
1	Dr.R.Kumutha	Sri Venkateswara College of Engineering	Faculty
2	Dr.K.Vijai	St.Joseph's College of Engineering	Faculty
3	R. Yamni	Sri Venkateswara College of Engineering	UG Student
4	Akruutha K	Sri Venkateswara College of Engineering	UG Student
5	Hemalatha R	Sri Venkateswara College of Engineering	UG Student
6	R.Balaraman	Jerusalem College of Engineering	Faculty
7	S.Gowtham	Sri Venkateswara College of Engineering	UG Student
8	G.Monisha	Sri Venkateswara College of Engineering	UG Student
9	P. Arul	Sri Venkateswara College of Engineering	Faculty
10	Ranjith I	CSIR IICT	Research Scholar
11	A.Jenisha	Sri Venkateswara college of Engineering	UG Student
12	Logeshwari R	Sri Venkateswara College of Engineering	UG Student
13	Rajarajan S	Sri Venkateswara College of Engineering	UG Student
14	Jenani.m	Sri Venkateswara college of Engineering	UG Student
15	G.Harshavarthani	Sri Venkateswara College of Engineering	UG Student
16	Naveen S	Sri Venkateswara College of Engineering	UG Student
17	P. Maharaja	CSIR-Central Leather Research Institute	Research Scholar
18	Kavinselva P	Sri Venkateswara College of Engineering (SVCE), Sriperumbudur, Kanchipuram district	UG Student
19	Dr. P. Venkateswara Rao	Sri Venkateswara College of Engineering	Faculty
20	Mohamed Nibras S	Sri Venkateswara College of Engineering, Sriperumbudur	UG Student
21	S. Mani Bharathi	Sri Venkateswara College of Engineering	UG Student
22	Sriram.L	Sri Venkateswara College of Engineering	UG Student
23	C.Merlin Rani	SSM Institute of Engineering and Technology	Faculty
24	Dharshini. G	Sri Venkateswara College of Engineering	UG Student
25	Gokul k	Sri Venkateswara College of Engineering	UG Student
26	Ms.Bharathy G	Sri venkateswara College of Engineering	Faculty
27	S.Sivaranjani	Sri Venkateswara College of Engineering	UG Student
28	Siddharth J U	Sri Venkateswara College of Engineering	UG Student
29	Selvabharathi Gopal	SSM Institute of Engineering and Technology	Faculty
30	Kirthiga	Sri Venkateswara College of Engineering	UG Student
31	Laleeth Kumar D	Sri Venkateswara College of Engineering	UG Student
32	Dr Keerthi R	Sri Venkateswara College of Engineering	Faculty
33	Srikiruthiga S	Sri Venkateswara College of Engineering	UG Student
34	G.Saravanapandi	Sri Venkateswara College of Engineering	UG Student
35	Ruby Freya	Sri Venkateswara College of Engineering	Faculty
36	Karthick S	Sri Venkateswara College of Engineering	UG Student
37	Hariswaran S	Sri Venkateswara College of Engineering	Faculty
38	Nishal M	Sri Venkateswara College of Engineering	Faculty
39	Porselvam s	CEMCOT	Research Scholar
40	G.Sivani	Sri Venkateswara College of Engineering	UG Student
41	Dr. A. Bhaskaran	Sri Venkateswara College of Engineering	Faculty
42	SathyaPriya K	Sri Venkateswara College of Engineering	Faculty
43	Ponram.P	VSVN Polytechnic College, Virudhunagar	Faculty
44	G. Arun	Sri Venkateswara College of Engineering	Faculty
45	Ranjana Piriyaadharshini	Sri Venkateswara College of Engineering	UG Student
46	Dr.S.Sivasankar	CMR Technical Campus, Hyderabad	Faculty
47	Kalaivannan R	Sri Venkateswara College of Engineering	Faculty
48	Diravia Balan S	Sri Venkateswara College of Engineering	Faculty
49	Priyanka. K	Sri Venkateswara College of Engineering	UG Student

S.No	Name of the Participant	Name of the Institution/Industry	Category
50	Dr. J. Sutha	AAA College of Engineering and Technology, Sivakasi	Faculty
51	Gokul R	Sri Venkateswara College of Engineering	UG Student
52	Arshiya.A .S	Sri Venkateswara College of Engineering	UG Student
53	Fahmi Reeshman Ahamed O	Sri Venkateswara College of Engineering	UG Student
54	Divya S S	College of Engineering, Guindy	PG Student
55	Harini.S	Alagappa College of Technology Campus, Anna University	PG Student
56	P.Indhumathi	Alagappa College of Technology. AnnaUniversity, Chennai	PG Student
57	Padmanaban.N	Sri Venkateswara College of Engineering	UG Student
58	Hemalatha Veerasamy	Sri Venkateswara College of Engineering	UG Student
59	J.Haritha	Sri Venkateswara College of Engineering	UG Student
60	Chayan Sardar	Sri Venkateswara College of Engineering	UG Student
61	Dr.G.Devasagayam	Sri Venkateswara College of Engineering, Sriperumbudur	Faculty
62	Dr.P.Seeni kannan	AAA college of Engineering and Technology, Sivakasi	Faculty
63	Kiruthiga Selvan	Sri Venkateswara College of Engineering	UG Student
64	Dr.S.R.Malathi	Sri Venkateswara College of Engineering	Faculty
65	T.M.Tilaq Rohith	Sri Venkateswara College of Engineering	UG Student
66	K Rajeshkumar	Government College of Technology, Coimbatore	Faculty
67	Vivedhitha Varshini.A.G	Sri Venkateswara College of Engineering	UG Student
68	S.P.Kanniyappan	R.M.K Engineering College	Faculty
69	Rajeswari Ramaraj	Sri Venkateswara College of Engineering	Faculty
70	S.Hariharan	Sri Venkateswara College of Engineering,	UG Student
71	G. Manikanda Raja	AAA college of engineering and technology	Faculty
72	Udaya Kumar R	Alumini of SVCE	UG Student
73	Inam-UI-Haq	Global Institute of Engineering and Technology	UG Student
74	Nalinkanth V Ghone	Sri Venkateswara College of Engineering	Faculty
75	Praveen Kumar V	Sri Venkateswara College of Engineering	UG Student

SUMMARY OF FEEDBACK

Total Number of respondents: 75				
Feedback statement	Strongly Agree	Agree	Neutral	Disagree
The session delivered the information I expected to receive	52	22	1	
The subject matter was presented effectively	55	19	1	
The pace and duration of the webinar was satisfactory	53	20	2	
The resource person is knowledgeable	61	13	1	
The resource person presented the information in a clear and logical manner	60	13	2	
Sufficient time was given for interaction	51	22	2	
The webinar was well organized	58	15	2	
As a result of this webinar, I gained new knowledge	58	16	1	



Additional comments/feedback from participants:

- The session was very knowledgeable
- This webinar is very useful to know the new things
- Webinar was planned and executed in a professional manner...
Presentation was excellent....
Congratulations to Dr.R.Kumutha, Prof. and Head for arranging this webinar.....
- Sir kind request, it may be conducted either one or twoweeks programme

- More informative and useful program.
- I found this webinar helpful to enhance my knowledge regarding plastic types and its management in our society. Hope for more such webinars to be organized in future.
- More information gained from this session.
Very clear presentation...
Thank to Dr.Ravindranath sir.
Thanks to the organisers Dr.R.Kumutha and SVCE faculties.
- Very informative session. But the duration can be extended.



Prepared By
Mr.R.Mathiyazhagan
(Assistant Professor /Civil Engg.)
Coordinator



Approved By
Dr.R.Kumutha
Prof. & Head
Civil Engg.
Convenor