

**MEMORANDUM OF UNDERSTANDING (MOU)**

**BETWEEN**



**Anil Neerukonda Institute of Technology and Sciences (Autonomous)**

**Sangivalasa, Bheemili Mandal,  
Visakhapatnam, Andhra Pradesh-531162**

**and**

**GANAPATHI SCRAPS**

**Near Andhra Bank, Chakalipeta, Bheemili Village  
Visakhapatnam, Andhra Pradesh-531163**

## **MEMORANDUM OF UNDERSTANDING**

This **Memorandum of Understanding** (herein after called as the 'MOU') is entered into on **9<sup>th</sup> September 2021** by and between

**Anil Neerukonda Institute of Technology and Sciences (Autonomous)  
Sangivalasa, Bheemili Mandal, Visakhapatnam**

**THE FIRST PARTY** represented herein by **Prof. K. Sri Ramakrishna - Principal**

**and**

**GANAPATHI SCRAPS  
Near Andhra Bank, Chakalipeta, Bheemili Village, Visakhapatnam**

**THE SECOND PARTY** represented herein by **G.Venkatesh - Store keeper  
Mobile number: 9392466045**

### **PURPOSE OF MOU**

#### **The Core Objectives:**

1. To gather and dispose solid waste that is dumped after it has lost its purpose.
2. To maintain community's health and safety while enhancing environmental quality.

**NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTHIN THIS MOU, THE PARTIES HERE TOAGREE ASFOLLOWS:**

**Clause 1**

**CO-OPERATION**

The parties must establish common channels of communication and cooperation to promote and advance their respective operations. There should be a proper channel of communication to address and share each other's goals and ideas and provide any knowledge that could be very helpful to treat the solid waste management.

**Clause 2**

**SCOPE OF THE MOU**

Both parties must make a significant contribution in handling the solid waste management on a regular basis for the environment to remain clean and minimize health issues.


**Clause 3**

**VALIDITY**

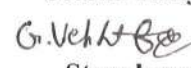
- 3.1 The validity of the agreement is one year from the date of agreement.
- 3.2 Both parties may terminate this MOU upon 30 calendar days' notice in writing. In the event of termination, both parties have to discharge their obligations.

**AGREED:**

**First Party**

  
**Principal**  
**Prof. T.V. Hanumantha Rao**  
**A.N.I.T.S.**

**Second Party**

  
**Store keeper**  
**G. Venkatesh**  
**Ganapathi Scraps**



# Anil Neerukonda Institute of Technology & Sciences (Autonomous)

(Affiliated to AU, Approved by AICTE & Accredited by NBA & NAAC)  
Sangivalasa-531 162, Bheemunipatnam Mandal, Visakhapatnam District  
Phone: 08933-225083/84/87 Fax: 226395  
Website: [www.anits.edu.in](http://www.anits.edu.in) email: [principal@anits.edu.in](mailto:principal@anits.edu.in)

## Facilities in the Institution for the management of the following types of degradable and non-degradable waste

1. Solid waste management
2. Liquid waste management
3. E-waste management
4. Hazardous chemicals management

### 1. Solid waste management



## 2. Liquid waste management



# **Hazardous chemicals management**



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email: [principal@anits.edu.in](mailto:principal@anits.edu.in)

### Chemical waste disposal guidelines and norms followed at ANITS


By law, we are required to dispose waste as pollution board rules. We also have a moral obligation to maintain the environment. All lab waste is prima-facie a hazardous waste that must be segregated and disposed appropriately. To avoid difficult and potentially costly waste disposal problems, a procedure should be in place to assure all materials are labeled and unneeded chemicals disposed of properly.

1. Material should be placed into compatible storage containers with secure screw-on tops and labeled.
2. In general waste must be stored in the type of container in which the component materials were purchased (glass, plastic or metal). However, metal cans should not be used for acidic and corrosive solutions (alkali, acid, etc.). Also, as much as possible avoid glass containers for storage as they can shatter easily.
3. Small amount of waste can be collected in the labs. Once a month, lab in-charges are required to collect all the waste and bring it to the waste collection shed (next the utility building). Only labelled and segregate waste will be collected so please make sure all the rules of segregation and labelling are followed. No mystery chemicals please.
4. Hazardous waste needs to be segregated and disposed in the following manner to comply with the institute waste management policy.

#### Chemical waste segregation:

1. Acids + solvents mixture can spontaneously ignite. Never store/leave a solvent + acid mixture in the lab unattended. If you do happen to make such a solution, segregate it and take it outside of the building to the waster shed.
2. Acidic waste with fluoride ions must be collected separately in plastic containers, e.g. dilute hydrofluoric acid, ammonium fluoride and buffered-oxide etc.
3. Acidic wastes which contain toxic metal salts (Cr, Pb, etc.) cannot be buried in a chemical landfill, so must be collected separately.
4. Acid waste that does not contain metallic toxins or fluoride and have a  $\text{pH} > 4$  can be disposed into the drain with copious amounts of water
5. Acid waste that does not contain metallic toxins or fluoride and have a  $\text{pH} < 4$  must be separately collected in plastic containers.
6. Acids + oxidizers react and evolve gas. So unattended acids+oxidizer mixtures present an explosion hazard -- in extreme cases plastic bottle can burst spraying acid everywhere. Fresh acids+oxidizer mixtures must be collected separately and kept inside the fume hood for 1 day. This allows time for the reaction to complete and gasses to escape. Nitric acid is both a strong acid and an oxidizer so solutions containing  $\text{HNO}_3$  it should be treated as an acid+oxidizer.

7. Solvents + oxidizer mixture can also spontaneously ignite. Never store/leave a solvents + oxidizer mixture in the lab unattended. If you do happen to make such a solution, segregate it and take it outside of the building to the waste shed.
8. Base + solvent mixtures also evolve gasses. So unattended base+oxidizer mixtures present an explosion hazard -- in extreme cases plastic bottle can burst spraying base everywhere. Fresh base+oxidizer mixtures must be collected separately and kept inside the fume hood for 1 day. This allows time for the reaction to complete and gasses to escape.
9. Solvents must be separately collected in plastic or metal containers, e.g. benzene, ether, ethyl acetate, acetone, alcohols, hydrocarbons, etc.
10. Non-toxic basic waste with a  $\text{pH} < 10$ , must can be disposed into the drain with copious amounts of water.
11. Basic waste with  $\text{pH} > 10$ , must be separately collected in plastic container. If they do not have any oxidizer, bases can be stored with solvents.



ANITS  
Bheemunipatnam, Visakhapatnam, 531162  
Chemical Reaction Engineering laboratory, Chemical Engineering Department, Sanghavesa, Near Tagarapuratasa, ANITS College  
Lat 17.921136°  
Long 83.426679°  
03/03/22 10:44 AM

Log Book For chemical waste Disposal  
Chemical Reaction Engineering Lab

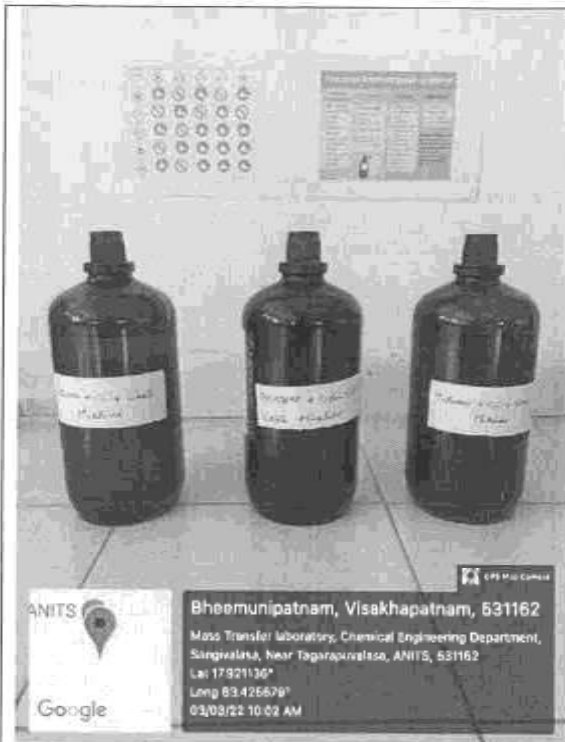
Sr.No	Date	Chemical name	Conc.	Quantity	Staff Signature
01	01/03/2022	Ethyl acetate NaOH HCl Acetic acid	0.1N 0.1N 0.1N 0.1N	20L 20L 1L 500ml	dr
02	2/03/2022	Ethyl acetate NaOH HCl Acetic acid	0.1N 0.1N 0.1N 0.1N	20L 20L 1L 500ml	dr
03	20/03/2022	Ethyl acetate NaOH HCl acetic acid	0.1N 0.1N 0.1N 0.1N	20L 20L 1L 500ml	dr
04	30/03/2022	Ethyl acetate NaOH HCl Acetic acid	0.1N 0.1N 0.1N 0.1N	20L 20L 1L 500ml	dr
05	6/04/2022	Ethyl acetate NaOH HCl Acetic acid	0.1N 0.1N 0.1N 0.1N	20L 20L 20L 500ml	dr

*The above chemicals are neutralized with H<sub>2</sub>O distilled and then to disposed*  
dr  
15/03/22  
10:44 AM

Chemical waste mixtures storage cans in Chemical Reaction Engineering Laboratory

Chemical waste mixtures & disposable log register in Chemical Reaction Engineering Laboratory





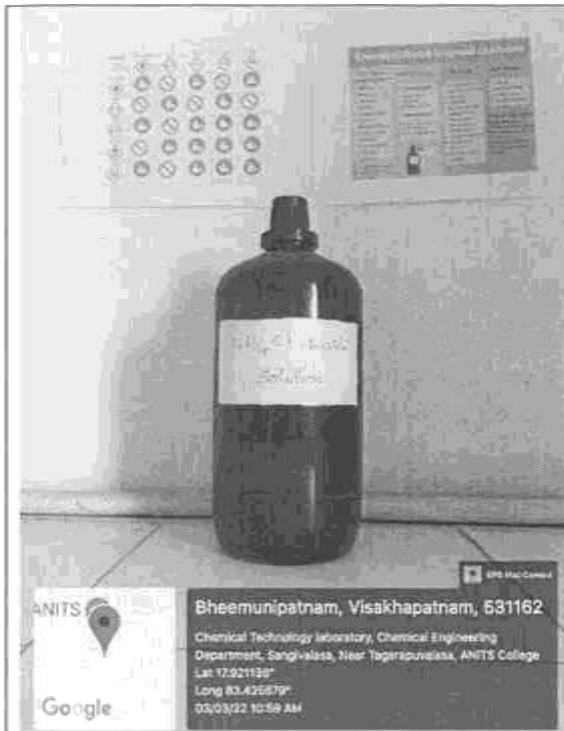
Mass Transfer Lab  
LOG Book For WASTE DISPOSAL (continued)

S.No	Date	Chemical Name	Conc.	Quantity	Staff Signature
01	01/03/2022	Toluene + ccl4 NaOH Acetic acid Benzene HCl	0.1N 0.1N	320ml 700ml 50ml 50ml 100ml	Tulani
02	01/03/2022	Toluene + ccl4 NaOH Acetic acid Benzene HCl	0.1N 0.1N	320ml 700ml 50ml 50ml 100ml	Tulani
03	22/03/2022	Toluene + ccl4 NaOH Acetic acid Benzene HCl	0.1N 0.1N	320ml 700ml 50ml 50ml 100ml	Tulani
04	30/03/2022	Toluene + ccl4 NaOH Acetic acid Benzene HCl	0.1N 0.1N	320ml 700ml 50ml 50ml 100ml	Tulani

S.No	Date	Chemical name	conc.	quantity	Staff Signature
05	01/04/2022	Toluene + ccl4 NaOH Acetic acid Benzene HCl	0.1N, 0.1N	320ml 700ml 50ml 50ml 100ml	Tulani
<p><i>Wastes and disposals done</i></p> <p><i>Tulani (Lab Technician)</i>      <i>K. S. Srinivas (Lab Incharge)</i></p>					

Chemical waste mixtures storage bottles in Mass Transfer Laboratory

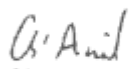
Chemical waste mixtures & disposable log register in Mass Transfer Laboratory



Chemical waste mixtures storage bottles in Chemical Technology Laboratory

Log Book For Chemical Waste Disposal Chemical Technology Lab					
Sr. No.	Date	Chemical Name	Conc.	Quantity	Staff Signature
01	27/03/22	H <sub>2</sub> SO <sub>4</sub>	0.1N	800ml	Tulasi
02	27/03/22	NaOH	0.1N	700ml	Tulasi
03	27/03/22	NH <sub>3</sub>	Dilute	500ml	Tulasi
<p>The above chemicals are mixed and stored in the mixture. On receipt of the order for disposal, the mixture is disposed.</p>					<p>Tulasi (ChE Technicians)</p>

Chemical waste mixtures & disposable log register in Chemical Technology Laboratory

  
 (Dr. Ch. Anil)  
 HoD, ChE.  
**HEAD,**  
**DEPARTMENT OF CHEMICAL**  
**ENGINEERING**

## **E-waste management**

9th March 2021

To,  
The Principal  
ANITS  
Sangivalasa

Respected Sir,

Sub: Request for the permission to dispose condemned computers & their related devices from various departments in college -Reg.

As per the requests from various departments since last 5 years to repair computers & their related devices which are not in working condition, out of which the devices which can't be repaired are kept in the store room of CDM Department. Since the store room is full and it is also harmful to keep such old devices [more than 15 years old]. Hence we request you to permit to dispose them. A detailed report containing number of computers & their related devices to be disposed and number of LCD monitors to be sent for repair.

Kindly nominate experts to confirm the same for the disposal & repair of the following.

S. NO	ITEM	COUNT	ACTION TO BE TAKEN
1.	CPU's	197	Need to be Considered as Scrap
2.	CRT Monitor's	139	Need to be Considered as Scrap
3.	IBM Server's	04	Need to be Considered as Scrap
4.	Dot Matrix Printer's	06	Need to be Considered as Scrap
5.	Scanner's	03	Need to be Considered as Scrap
6.	LCD Monitor's	57	To be sent for Repair

You may kindly take decision on this issue.

Thanking you sir,

To  
Principal (CDM Dept)

All the items are from various  
of department of use in  
signature at the  
date

*A G Sekhar*  
13/3/21

Yours sincerely

*A G Sekhar*  
09/03/2021

A G Sekhar  
Programmer  
CDM Dept

copy of this report is submitted to following for their respective action

# HANUMAN ENTERPRISES

The scrap merchants  
DATE 9-8-2021

To,  
THE MANAGER,  
ANITS COLLEGE,  
TAGARAPUVALASA,  
VIZAG.

SUBJECT:- Quotation for scrap materials.

MATERIAL	QUANTITY	PRICE FOR UNIT
CPU(Anycondition )and MONITER(CRT) (TFT) key board and mouse	1	650

*CPA*  
11/8/21

Regards with,  
HanumanEnterprises,  
D.pandurangaraju,  
9966444363.