

GRAMS: ENESTIEL  
PHONE: 0891-2586095  
FAX: 0891-2559464



No. NSTL/NTD-2023/Competitions  
Govt of India  
Ministry of Defence  
R&D Organisation  
NAVAL SCIENCE & TECHNOLOGICAL LAB  
Visakhapatnam – 530 027  
Date: April 2023

To,  
The Principal

Visakhapatnam.

**Sub: - Invitation for National Technology Day Celebration (NTDC) -2023**

1. National Technology Day is being celebrated at Naval Science & Technology Laboratory (NSTL, DRDO) on 11<sup>th</sup> May 2023. On this occasion NSTL, DRDO is organizing following events for Students.
  - i) Open house (Exhibition / Display of NSTL's Products)( 9<sup>th</sup> & 10<sup>th</sup> MAY 2023)
  - ii) Multi-media presentation of NSTL Technologies (9<sup>th</sup> & 10<sup>th</sup> MAY 2023)
  - iii) Competition on model/ exhibits on **"Integrated Approach in Science & Technology for sustainable future"**
- 2 Your college is invited to participate in the open house and the competitions. During open house, students would be permitted to witness display of exhibits of weapons/systems being developed by NSTL for Indian Navy. You are requested to depute students from your esteemed institution to visit NSTL on this occasion.
- 3 A Multi-media presentation of NSTL developed technologies will be screened during the visit.
- 4 On this occasion, NSTL is organizing a competition on **"Integrated Approach in Science & Technology for sustainable future"**. Relevant models/ exhibits may please be forwarded along with abstract by students duly approved by Principal of colleges to NSTL by 30<sup>th</sup> April 2023. Prizes and certificates will be awarded for best models/ exhibits. Best models/ exhibits will be displayed in the open house exhibition.
- 5 You may please advise your students to carry their photo identity cards and escorted by a faculty member during the visit. **Further please note that cell phones/ cameras are not permitted during the visit as a security measure.** Decorum and discipline is to be maintained during the visit. Visiting students & accompanying faculty may be briefed accordingly.
- 6 The list of participants and faculties are to be sent by return FAX/email/in person to undersigned or Shri Kishore Chand K, Scientist E (Fax: 0891-2559464; Contact no: 0891-2586494 Mob: 9490232433, 8539088872 (email: [kishore.nstl.ntdc.2023@gmail.com](mailto:kishore.nstl.ntdc.2023@gmail.com)) on or before 03-05-2023 for the open house.
7. **Request to provide following details for better co-ordination**
  - a) No of Groups/Size of Groups/Qualifications:
  - b) Date & time of Visit: (choose one of the options- AM 9<sup>th</sup> , PM 9<sup>th</sup> , AM 10<sup>th</sup> , PM 10<sup>th</sup> )
  - c) Accompanied by (Faculty/ Staff): (please provide name with contact no)

*T.V.S.L. Satyavani*  
(Dr. TVSL Satyavani) 26/4/23  
Chairperson, NTDC-2023



# Dr. Lankapalli Bullayya College of Engineering

New Resapuvani Palem, Visakhapatnam

Sponsored by Society of Collegiate Education  
Approved by AICTE, Affiliated to Andhra University

## CIRCULAR

DATE: 05-05-2023.

It is hereby informed that an Industrial Visit to **Naval Science & Technological Laboratory (NSTL) | Defence Research and Development Organisation - DRDO, Ministry of Defence, Government of India (NSTL-DRDO)** is planned for III/IV B.Tech students of all Departments on **09-05-2023 and 10-05-2023**.

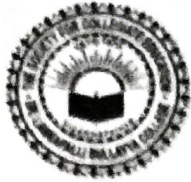
In this regard, all the III/IV B.Tech students Engineering students are informed to go for the visit.

Copy to  
Hon'ble Secretary and Correspondant  
HOD's of All Departments,  
IQAC  
R&D Cell  
ESIC Cell  
SDC

PRINCIPAL  
Principal

Dr. Lankapalli Bullayya College of Engineering  
D.No.52-14-75, Resapuvanipalem  
Visakhapatnam-530013. Andhra Pradesh

HOD-CIVIL	HOD-CSE	HOD-ECE	HOD-EEE	HOD-BS&H	R&D Cell	IQAC
				V. Radha Devi		
III-CIVIL	III-CSE	III-ECE	III-EEE	SDC	ESIC CELL	OFFICE



# Dr. Lankapalli Bullayya College of Engineering

New Resapuvani Palem, Visakhapatnam

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## LIST OF STUDENTS

### Industrial Visit

Name of Industry: Naval Science & Technological Laboratory (NSTL) | Defence Research and Development Organisation - DRDO, Ministry of Defence, Government of India, Visakhapatnam.

Department: COMPUTER SCIENCE ENGINEERING

Duration: 09-05-2023

S.No	Registration Number	Name of Student	Signature of Student
1	320136410001	Achalla Lavanya	A. Lavanya
2	320136410002	Akula Sairatna harshini	Akula Sairatna harshini
3	320136410003	Alamanda Vasu	Alamanda Vasu
4	320136410004	Ambati Anusha	A. Anusha
5	320136410005	Arjala Vandana	Arjala Vandana
6	320136410006	Attada Vyshnavi venkata vineeta	Attada Vyshnavi
7	320136410007	Ayodhya Yamuna venkata sesha sai	Ayodhya Yamuna
8	320136410008	Badipatla Sri naga parameswari noditha	Noditha
9	320136410009	Bakuru Ambica sony	B. A. Sony
10	320136410010	Baliyarusimhula Satyapriya	Priya
11	320136410011	Behara Janshi rani	B. Janshi rani
12	320136410012	Bellana Kavitha	B. Kavitha
13	320136410013	Bellana Veena varshitha	B. Veena Varshitha
14	320136410014	Bevara Haritha	B. Haritha
15	320136410015	Bobbili Madhulika	P. Madhulika
16	320136410016	Boccha Gopala krishna	B. Gopala krishna
17	320136410017	Bodepu Sindhu moulika	B. Sindhu Moulika
18	320136410018	Bodhireddy Pranathi	B. Pranathi
19	320136410019	Bodi Lakshmi manasa	B. Manasa
20	320136410020	Bora Keerthi	B. Keerthi
21	320136410021	Challapalli Sri sritha	Sritha
22	320136410022	Chambuli Aditya srinivas	Ch. Aditya srinivas
23	320136410023	Chappidi Rajesh	Ch. Rajesh
24	320136410024	Chekuri Ashish varma	Ch. Ashish
25	320136410025	Chemolu Sri harshavardhan	C. S. Harshavardhan
26	320136410026	Chenna Jani sri	Jani sri
27	320136410027	Chilukuri Sneha sai	Ch. Sneha sai
28	320136410028	Chokkakula Pujitha	Ch. Pujitha
29	320136410029	Chukka Venu seetha venkata manju sree	H. Venu seetha
30	320136410030	Dalai Hema latha	D. Hema latha
31	320136410031	Dandu Vysishtya	D. Vysishtya
32	320136410032	Dangeti Bhanu sai teja	D. Bhanu
33	320136410033	Duvvada Hemanth kumar chowdari	D. Hemanth

34	320136410034	Dwarapureddy Manasa	D. V. Manasa
35	320136410035	Esarapu Divij vignesh	Divij
36	320136410036	Gangiredia Varaha modha lakshmi kantham	G.V.M.L. Kantham
37	320136410037	Gopichettipaliyam Lakshmi manasa	Gopichetti
38	320136410038	Gude vijaya Varshitha	G. Akhil
39	320136410039	Gulivindala Akhil	G. Akhil
40	320136410040	Gumma Satwika	G. Satwika
41	320136410041	Indana Gnaneswari	G. Gnaneswari
42	320136410042	Jami Chitra harsha	J. Chitra
43	320136410043	Janapala Anitha	J. Anitha
44	320136410044	Jayati Sai venkata sridevi	J. Sridevi
45	320136410045	Junna Venkata nagendra reddy	J. V. Nagendra reddy
46	320136410046	Jyothi Pilla	J. Pilla
47	320136410047	Kadari John babu	K. John babu
48	320136410048	Kadimi Harsh	K. Harsh
49	320136410049	Kandi Meghana	K. Meghana
50	320136410050	Kandula Dharani	K. Dharani
51	320136410051	Kanigiri Venkata sai dinesh reddy	K. Dinesh reddy
52	320136410052	Kannepalli Dindhu	K. Dindhu
53	320136410053	Kantimahanthi Aiswarya jahnavi	Aiswarya
54	320136410054	Kanuri Dileep	K. Dileep
55	320136410055	Karri Keerthi	K. Keerthi
56	320136410056	Kasarapu Bhagya	K. Bhagya
57	320136410057	Kollabathula Sreesurya	K. Sree Suresh
58	320136410058	Kondrapu Bharat kumar	K. Bharat kumar
59	320136410059	Korupolu Ram tagore	K. Ram tagore
60	320136410060	Kotani Yuvaraj	K. Yuvaraj
61	320136410061	Kotla Arudra anusha	K. Arudra
62	320136410062	Majji Padmavathi	M. Padmavathi
63	320136410063	Makkina Nithish	M. Nithish
64	320136410064	Mandapaka Kamakshi padma vritika	M. Kamakshi
65	320136410065	Marrapu Kavitha	M. Kavitha
66	320136410066	Mattam Vishnucharan	M. Vishnu
67	320136410067	Meka Bhavya sree	M. Bhavya sree
68	320136410068	Menaweli Navya	M. Navya
69	320136410069	Mihir varma Chintalapati	M. Chintalapati
70	320136410070	Muddada Tejaswini vidya vaishnavi	M. Tejaswini
71	320136410071	Mukarram Ahmed	M. Ahmed
72	320136410072	Nemani Venkata sri sai sirisha	N. Sirisha
73	320136410073	Nimmakayala Indu	N. Indu
74	320136410074	Padidapu Sri lakshmi prasanna	P. Prasanna
75	320136410075	Pakki Pravallika	P. Pravallika
76	320136410076	Palasetti Jayanth kumar	P. Jayanth kumar
77	320136410077	Palika Rohit	P. Rohit
78	320136410078	Palla Sushma	P. Sushma
79	320136410079	Pathina Durga bhavani	P. Durga
80	320136410080	Peddada Sasi kumar	P. Sasi kumar
81	320136410081	Peddinti Lakshmi prasanna	P. Lakshmi prasanna
82	320136410082	Peela Thiloshna	P. Thiloshna
83	320136410083	Peethala Kranthi kumar	P. Kranthi kumar

84	320136410084	Pilli Hemasri	P. Hema Sai
85	320136410085	Pithani Jayanthkumar	P. Jayanthkumar
86	320136410086	Poduri Soniya	
87	320136410087	Polamarasetti Bhargav	
88	320136410088	Polarasi Sri keerthi supriya	P. Keerthi
89	320136410089	Pujari Krishnavamsi	<u>Gavi</u>
90	320136410090	Ravipati Kalyan chakravarthy	
91	320136410091	Rongali Aswini	
92	320136410092	Rongali Durga sai	R. Durga Sai
93	320136410093	Sahukara Jahnavi	
94	320136410094	Sarvasiddi Sravanthi	
95	320136410095	Sana Sreeya sree	
96	320136410096	Sasubilli Saichandra	
97	320136410097	Satraboina Reshma	
98	320136410098	Satya veera vidhya sagari Chilla	
99	320136410099	Seerapu Harsha nandini	S. Harsha Nandini
100	320136410100	Sesetti Divya vani	
101	320136410101	Shaik Kabeer vali	
102	320136410102	Sunkaranam Venkata gowthami saranya	
103	320136410103	Suraj reddy Gudla	
104	320136410104	Tadi Sravani	
105	320136410105	Telli Naveen	
106	320136410106	Telu Sravya	
107	320136410107	Thangudu Dhilleswara rao	
108	320136410108	Tripurana Juhi sravanya	
109	320136410109	Uyyuri Jyothi sravya	
110	320136410110	Vaddi Alekhya	
111	320136410111	Vaidada Jaya deep	
112	320136410112	Vamsi ram Annepu	
113	320136410113	Varanasi HariPriya	V. Hari Priya
114	320136410114	Veeramreddy Naveen reddy	V. Naveen Reddy
115	320136410115	Veluvali Santhi shiphrah	
116	320136410116	Vennapusa Venkata sisindri	
117	320136410117	Vijapurapu Venkata lakshmi rukmini ujjwala	
118	320136410118	Vundru Mounika	
119	320136410119	Yalangi Venkat bhatharath sunny	
120	320136410120	Yandapalli Sravan kumar	
121	320136410121	Yeduri Vamsi mani prasad	
122	320136410122	Yelaka Sai kiran	Y. Sai kiran
123	320136410123	Yellapu Nithin narayan	
124	320136410124	Yellapu Pavani	
125	320136410125	Yenugutala Bhuvanewari	
126	320136410126	Anaparthi Bhargavi	A. Bhargavi
127	320136410127	Appalabatula Vinodh	
128	320136410128	Arijerla Padma	A. padma
129	320136410129	Gandaboyina Varsha bhanu	G. Varsha bhanu
130	320136410130	Gandreddi Gowthami	
131	320136410131	Gorumutchi Prabhushan	G. Prabhushan
132	320136410132	Gurugubelli Anantha sai	
133	320136410133	Kavuri Saiesha	K. Saiesha

134	320136410134	Mohammad Shamshul arifeen	Shamshul
135	320136410135	Nalla Pavan kalyan	Pavan kalyan
136	320136410136	Patnala Harika	H. Harika
137	320136410137	Rajana Pavankumar	
138	320136410138	Seeram Manikanta bala varma	
139	320136410139	Suggu Sharon	
140	320136410140	Onimi Yeswanth	Yeswanth

*GU*  
Coordinator

*D*  
HOD



# Dr. Lankapalli Bullayya College of Engineering

New Resapuvani Palem, Visakhapatnam

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## LIST OF STUDENTS

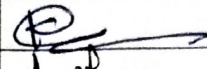

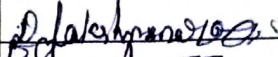
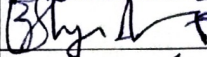
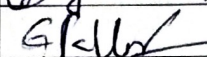
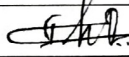

### Industrial Visit

Name of Industry: Naval Science & Technological Laboratory (NSTL) | Defence Research and Development Organisation - DRDO, Ministry of Defence, Government of India, Visakhapatnam.

Department: ELECTRONICS AND COMMUNICATION ENGINEERING

Duration: 10-05-2023

S.NO	Registration Number	Name of the Student	Signature
1.	320136412001	A.S.S.A DATHAKUMAR	
2.	320136412002	ADHIKARI SUPRAJA	
3.	320136412003	ADIMULAM RAM NARAYANA	
4.	320136412004	AKULA SAI LAKSHMI HARIKA	A-Harulla
5.	320136412005	ALTHI RAVI KUMAR	A-Ravi Kumar
6.	320136412006	ANDLURI HARIKA PRIYA	A-HarikaPriya
7.	320136412007	ARUGULA LIKHIT SHANKAR	
8.	320136412008	ASAPU SRIHARSHA	A-SriHarsh
9.	320136412009	ASHRITHA BONTHAPALLI	
10.	320136412010	BALABADRA RAVI TEJA	Baliteja
11.	320136412011	BAMMIDI JAHNAVI	B-Jahnalli
12.	320136412012	BAMMIDI LAKSHMI ANUSHA	
13.	320136412013	BATTULA SYAM KUMAR	
14.	320136412014	BHANDARI JATIN	
15.	320136412015	BODHIREDDY DIVYA SAI	B-Divyasai
16.	320136412016	CHAPPA PAVITHRA	
17.	320136412017	CHILLA CHANDRA SRI	
18.	320136412019	CHITTI BHASKARA NAIDU	Naidu.

19.	320136412020	D. ROHITH BALARAM SAI VENKAT	Rohith,
20.	320136412021	DALLI KUNDHANA	Dkundana
21.	320136412022	D.I.S MONICA VARMA	D. S. Monica
22.	320136412023	DEKKATI KIRAN KUMAR	
23.	320136412024	DIVVALA AJAY	
24.	320136412025	DUPPADA LAKSHMAN RAO	
25.	320136412026	ELURI SHYAM SANDEEP	
26.	320136412027	GANIVADA PALLAVI	
27.	320136412028	GANGULA VENKATA JAYANTHI	G.V. Jayanthi
28.	320136412029	GOLUSUPUDI GAYATRI	G. Gayatri
29.	320136412030	GONNABATULA LIKHITA	G. Likhitha
30.	320136412031	GOPISETTI MOHAN SAI	G. Mohan Sai
31.	320136412032	GORLE AKHILA	Akhila
32.	320136412033	GOTTAPU NEELIMA	G. Neelima.
33.	320136412034	GUDEVADA ARAVIND	G. Aravind
34.	320136412035	GUNDROTHU MOUNIKA	G. Mounika
35.	320136412036	GURUBILLI SASI VARDHAN	G. Sasi vardhan
36.	320136412037	IJJADA SRAVANA SANDHYA	Sravana sandya
37.	320136412038	IJJADA TEJA	
38.	320136412039	JUTTU MANJULATHA	Manjulatha
39.	320136412040	KAGITHA VENKATA SRI RAM	K.V. Sri Ram
40.	320136412041	KALLA ATCHYUTH	K. Achyuth
41.	320136412042	KAMIREDY MADHURI	K. Madhuri
42.	320136412043	K. C. VARALAKSHMI DEVI	K. Chethana
43.	320136412044	KANUMURI NAVYA	K. Navya
44.	320136412045	KARRI PRAVALLIKA	Pravallika
45.	320136412046	KARRI SRUJANA	K. Srujana
46.	320136412047	KARTHEEKA REDDIPALLI	K. Kartheeka
47.	320136412048	KEDARISSETTY BHAVYASREE	K. Bhavyasree
48.	320136412049	KOTTURTY PRUDHVI	
49.	320136412050	LASANGI VARUN	L. Varun



50.	320136412051	M. JAI CHANDRA	J. Chandra
51.	320136412052	MAMMULA MALAVIKA	Mamula M.
52.	320136412053	MARADANA ANUSHA	M. Anusha
53.	320136412054	MEDISETTI JYOSHNA	M. Jyoshna
54.	320136412055	MUNIKOTI MANIKANTA	Manikanta
55.	320136412056	M V SATYA SAI PHANI KUMAR	
56.	320136412057	MUVVALA CHARISHMA	M. Charishma
57.	320136412058	N S V S R PAWANA KRISHNA	
58.	320136412059	NAMMI JAHNAVI	N. Jahnavi
59.	320136412060	NARUNU VAMSI	
60.	320136412061	NAVAGANA ROHINI	
61.	320136412063	PALAKONDA PRAGYNA	Pragyna
62.	320136412064	PATNANA SAI KIRAN	
63.	320136412065	PIKKI JYOTHI	P. Jyothi
64.	320136412066	PILLA SATISH KUMAR	Satish Kumar
65.	320136412067	POTTA LAHARI	
66.	320136412068	RAYIDI HARSHITHA	R. Harshitha
67.	320136412070	SADI SREYA	S. Sreya
68.	320136412071	SAI ADITYA TANNIRU	Sai Aditya
69.	320136412072	SALAPU JYOTHIKA	
70.	320136412073	S BALA TRIPURA SUNDARI	S. Tripura
71.	320136412075	SISTLA HEMA LAHARI	
72.	320136412076	SONALI PRADHAN	Sonali
73.	320136412077	SRUTHI SINGH	
74.	320136412078	SUNKARA ANUSHA	Anusha
75.	320136412079	SURI SETTI JAYA RAJU	S. J. Raju
76.	320136412080	SYED HAMZA MUHAYMIN	
77.	320136412081	T KRISHNA PRADEEP KUMAR	
78.	320136412082	TEELLA MOUNIKA	
79.	320136412083	THEEGELA SAI KARTHIK	T. Mounika T. Saikarthik
80.	320136412085	TULUGU ANITHA	

81.	320136412086	TUMMAPALA HARISH KUMAR	T.L.
82.	320136412087	TUTTA BINDU PRIYA	
83.	320136412088	VARADHI VIGNYA SRAVANI	
84.	320136412089	V V KANAKA DURGA CHITTI	V.Chitti
85.	320136412090	VINNAKOTA SUSHMITHA	
86.	320136412091	VOONA LAHARI	
87.	320136412092	VUJIRI ROHITH	Rohith
88.	320136412093	VUMMADISETTI YASHASWINI	
89.	320136412094	AGRAPU SIRI CHANDANA	
90.	320136412095	BEHARA TARUN	Tarun
91.	320136412096	B NIRANJAN SHAKTHIK	Shakthik
92.	320136412098	DATTI HANISHA	
93.	320136412099	DURGA LALITH SAI	Lalitha
94.	320136412100	GABU NAGA SAI REDDY	G.Naga Sai
95.	320136412101	GANDI LAVANYA	
96.	320136412102	GOMPA LAVANYA	G.Lavanya
97.	320136412103	JINAGA SWETHA	
98.	320136412104	KORATANA DAMODARA RAO	K.Damodar Rao
99.	320136412105	KADIRI YAKSHITHA	K.Yakshitha
100.	320136412106	LAGUDU SRAVANI	L.Sravani
101.	320136412107	MANGALA HEMA SUNANDA	
102.	320136412108	ONUMU SANTOSH	O.Santosh
103.	320136412109	PATNANA SAI NIHARIKA	
104.	320136412110	POTNURU JYOTSNA	P.Jyotsna
105.	320136412111	REDDI AKSHAY KUMAR	R.Akshay
106.	320136412112	T KRISHNARJUNA SURYA	T.K.R. Surya
107.	320136412113	TEMBA HARSHINI	
108.	320136412114	VECHALAPU SWATHI	V.Swathi
109.	320136412115	SHAIK JAHEDA	

R. Santosh Sai  
Coordinator

  
HOD



# Dr. Lankapalli Bullayya College of Engineering

New Resapuvani Palem, Visakhapatnam

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## LIST OF STUDENTS

### Industrial Visit

Name of Industry: Naval Science & Technological Laboratory (NSTL) | Defence Research and Development Organisation - DRDO, Ministry of Defence, Government of India, Visakhapatnam.



Department: ELECTRICAL AND ELECTRONICS ENGINEERING

Duration: 10-05-2023

S.No	Registration Number	Name of the Student	Signature
1.	320136414001	A Joshitha	
2.	320136414002	A Sai Nikhil	
3.	320136414003	B Shalini	
4.	320136414004	D Prem Kumar	
5.	320136414005	D Lakshmi Sowmya	
6.	320136414006	G Sandhya	
7.	320136414007	G Harika	
8.	320136414008	G Soma Sekhar Reddy	
9.	320136414009	I V S Surendra Varma	
10.	320136414010	J Pavan Akash	
11.	320136414011	K V Deepak Chand	
12.	320136414012	K Karthik	DETAINED
13.	320136414013	K Yerrayamma	
14.	320136414014	K Navya Sri	
15.	320136414015	K Hareesh	
16.	320136414016	Kusuma Banditha	ABSENT
17.	320136414017	M Rekha	
18.	320136414018	M Renee Suneela	
19.	320136414019	M Kiran Kumar	
20.	320136414020	M Suneetha	
21.	320136414021	M Eesha Kumari	ABSENT
22.	320136414022	M Mohan Kumar	

23.	320136414023	M Himanth	ABSENT
24.	320136414024	N S Venkata Teja	N. S. Venkata Teja
25.	320136414025	O Deepthi	O. Deepthi
26.	320136414026	P Venkatesh	P. Venkatesh
27.	320136414027	P Kranthi Sri	Kranthi Sri
28.	320136414028	P Hemanth Kumar	ABSENT
29.	320136414029	Rajana Balu	ABSENT
30.	320136414030	S Prathibha	S. Prathibha
31.	320136414031	T Shyam Vinay Kiran	T. Shyam Vinay Kiran
32.	320136414032	U Bala Pranay	Bala Pranay
33.	320136414033	V Keerthi	V. Keerthi
34.	320136414034	V Ambica Siri Varshini	V. Ambica Siri Varshini
35.	320136414035	Y Ganesh Venkata Sai	Y. Ganesh Venkata Sai
36.	320136414036	Y Jyothi Priya	Y. Jyothi Priya
37.	320136414037	B Swathi	B. Swathi
38.	320136414038	Ch Kiran Babu	Ch. Kiran Babu
39.	320136414039	D Sai Ramya	D. Sai Ramya
40.	320136414040	D Venkatesh	D. Venkatesh
41.	320136414041	D Vasu	ABSENT
42.	320136414042	G Mounika	G. Mounika
43.	320136414043	G N V K Appana Sai	G. N V K Appana Sai
44.	320136414044	G Harika	G. Harika
45.	320136414045	K Durga Bhavani	K. Durga Bhavani
46.	320136414046	K Badhrinadh	K. Badhrinadh
47.	320136414047	K V Sai Manikanta	K. V Sai Manikanta
48.	320136414048	K Trinadh	K. Trinadh
49.	320136414049	K Madhan Kumar	K. Madhan Kumar
50.	320136414050	M Yaswanth	M. Yaswanth
51.	320136414051	M Kiran Preethi	M. Kiran Preethi
52.	320136414052	M Hamid Raza	M. Hamid Raza
53.	320136414053	M V S S D Sai Abhishek	M. V S S D Sai Abhishek
54.	320136414054	M Ravi	M. Ravi
55.	320136414055	N L Prasanna Kumar	N. L. Prasanna Kumar
56.	320136414056	P V Pavan Kumar	P. V. Pavan Kumar
57.	320136414057	P Karthik Siddardha	P. Karthik Siddardha

58.	320136414058	P Dinakar	P. Dinakar
59.	320136414059	R S S C Vara Prasad	R. S. S. C. Vara Prasad
60.	320136414060	B Rithwik	B. Rithwik
61.	320136414061	S Ashraf	S. Ashraf
62.	320136414062	V C H K V Sushma	V. C. H. K. V. Sushma
63.	320136414063	T Dinesh Kumar	T. Dinesh Kumar
64.	320136414064	T Bhargav	T. Bhargav
65.	320136414065	V Rakesh	V. Rakesh
66.	320136414066	V Sampath Ganesh	V. Sampath Ganesh
67.	320136414067	V Naveen	V. Naveen
68.	320136414068	B Kavya	B. Kavya
69.	320136414069	N Harsha Vardhan Chowdary	N. Harsha Vardhan Chowdary
70.	320136414070	P Vamsi	P. Vamsi

1.   
2.   
Coordinator

  
HOD



# Dr. Lankapalli Bullayya College of Engineering

New Resapuvani Palem, Visakhapatnam

Sponsored by Society of Collegiate Education  
Approved by AICTE, Affiliated to Andhra University

DATE:12-05-2023

Report on

Industrial/Field Visit

to

Naval Science & Technological Laboratory, Defence Research and Development  
Organization, Ministry of Defence, Government of India.

Duration: 09-05-2023 and 10-05-2023

Name of the Faculty Coordinators:

S.No	Name of the Faculty	Branch
1	M Himangeswari	CIVIL
2	D V Vara Manasa	CIVIL
3	Dr. G Vamsi Krishna	CSE
4	R Santosh Sai	ECE
5	Y Rupa Kalpana	ECE
6	B Satish Naidu	EEE
7	Ch. Ravi Kumar	EEE

Total Numbers of Students Attended

S.No	Branch	Number of Students attended
1	CIVIL	54
2	CSE	100
3	ECE	80
4	EEE	63

All the Technical departments of Dr. Lankapalli Bullayya College of Engineering has successfully organized a field visit to "NSTL-DRDO Visakhapatnam" for III B.Tech students. This was conducted to know the latest technologies used by the Defence forces. NSTL-DRDO VIZAG the Naval Science and Technological Laboratory is an Indian defence laboratory of the Defence Research and Development Organization, located in Visakhapatnam. Its main function is the research and development of underwater weapons and associated systems. NSTL is organized under DRDO's Directorate of Naval R&D. This has motivated all enthusiastic students to utilize this opportunity and know about the technologies used in the Defence forces.

**Objectives:**

- Field visits are the way of enhancing classroom learning by making real world connections.
- It creates awareness to students about the different innovative technologies.

**Outcomes:**

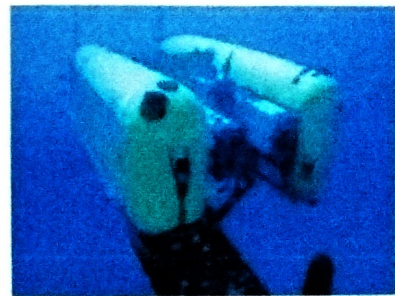
- Very good opportunity for students to interact with Experts.
- Develops confidence and helps to enhance their interpersonal skills.

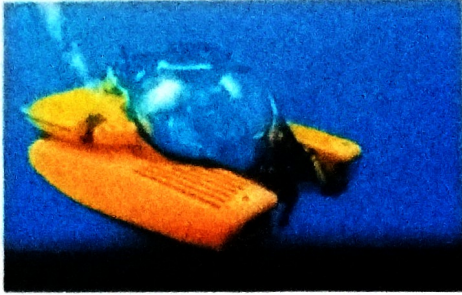
**1. Underwater Vehicles:**

Underwater vehicles are indispensable tools in the Naval Science and Technology Laboratory (NSTL), facilitating a wide range of underwater missions and research endeavors. NSTL employs various types of underwater vehicles to meet the diverse needs of naval operations. These vehicles include:

**Functions:**

- **Autonomous Underwater Vehicles (AUVs):** AUVs are unmanned, self-propelled submersibles designed for autonomous operation. They are used for tasks such as underwater mapping, data collection, and environmental monitoring. AUVs navigate through water with precision and can be equipped with sensors and cameras for data acquisition.
- **Remotely Operated Vehicles (ROVs):** ROVs are remotely controlled submersibles connected to the surface by cables. They are highly maneuverable and equipped with advanced cameras, robotic arms, and instruments. ROVs are used for tasks like underwater inspections, salvage operations, and scientific research.
- **Manned Submersibles:** NSTL may also use manned submersibles for deep-sea exploration and research missions. These submersibles can carry human occupants to extreme depths, allowing for direct observation and data collection in challenging environments.
- **Hybrid Underwater Vehicles:** Some underwater vehicles in NSTL's arsenal combine elements of AUVs and ROVs, offering versatility in underwater operations. These hybrids can operate autonomously or be remotely controlled as needed.





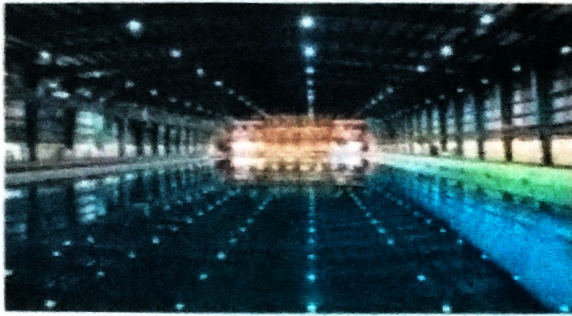
## 2. Hydrodynamic Testing Facilities:

Hydrodynamic testing facilities at the Naval Science and Technology Laboratory (NSTL) play a pivotal role in advancing naval engineering and ensuring the optimal performance of naval vessels and underwater systems. These facilities encompass a range of cutting-edge equipment and resources, including:

### Functions:

- **Towing Tanks:** NSTL's towing tanks are large, water-filled basins equipped with towing carriages. They are used to test scale models of ships and submarines under controlled conditions. Researchers can study the hydrodynamic behavior of vessels, assess their resistance and propulsion, and optimize their design for fuel efficiency and maneuverability.
- **Wave Tanks:** Wave tanks simulate different sea conditions, enabling researchers to evaluate how ships and underwater systems respond to waves, turbulence, and adverse weather. This testing is essential for designing vessels that can safely navigate challenging seas.
- **Model Basins:** Model basins provide controlled environments for studying the stability and seakeeping characteristics of ships. Researchers use scale models to analyze how vessels handle different sea states and wave patterns, contributing to safer and more effective naval operations.
- **Cavitation Tunnels:** Cavitation tunnels are specialized facilities that investigate the phenomenon of cavitation, which occurs when water pressure drops to the point where bubbles form around a moving object. These tunnels help researchers understand and mitigate cavitation damage to propellers and hulls.





### 3. Material Testing Labs:

Material testing labs within the Naval Science and Technology Laboratory (NSTL) are dedicated to evaluating the durability, strength, and performance of materials used in naval construction. These labs are equipped with advanced equipment and expertise to ensure the reliability of naval assets. Here are 10 lines of content detailing the significance and components of these labs:

#### Functions:

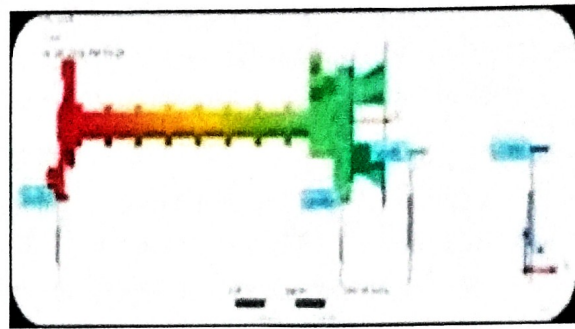
- **Metallurgical Analysis:** NSTL's material testing labs specialize in metallurgical analysis, examining the chemical composition and microstructure of metals used in shipbuilding and equipment construction.
- **Materials Characterization:** Researchers employ a range of techniques such as spectroscopy, microscopy, and mechanical testing to characterize materials and assess their suitability for naval applications.
- **Corrosion Resistance Testing:** Evaluating materials for their resistance to corrosion is crucial in the marine environment. NSTL conducts accelerated corrosion tests to determine the lifespan of materials in corrosive conditions.
- **Tensile Strength Testing:** Testing materials for tensile strength helps determine their ability to withstand forces and loads, critical for assessing the structural integrity of naval components.



#### 4. Sonar Systems:

##### Functions:

- **Detection and Localization:** NSTL's sonar systems are designed to detect and precisely locate underwater objects, including submarines, ships, and potentially hazardous obstacles.
- **Active and Passive Sonar:** NSTL employs both active and passive sonar technologies. Active sonar emits sound waves and analyzes their echoes, while passive sonar listens for acoustic signals generated by other vessels.
- **Towed Array Sonar:** Towed array sonar systems are used for long-range detection and tracking, typically attached to naval vessels and submarines.
- **Anti-Submarine Warfare:** Sonar systems play a crucial role in anti-submarine warfare, enabling naval forces to detect and counter underwater threats effectively.

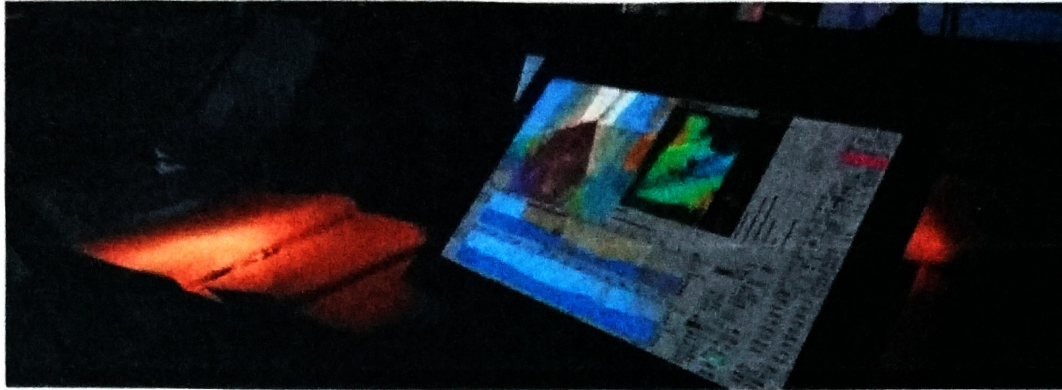


#### 5. Navigation Systems:

Navigation systems at the Naval Science and Technology Laboratory (NSTL) are critical for ensuring the precise and safe movement of naval vessels in various maritime environments. Here are 10 lines outlining the significance and functionality of navigation systems at NSTL:

##### Functions:

- **GPS (Global Positioning System):** GPS technology is a cornerstone of NSTL's navigation systems, providing accurate positioning data to determine a vessel's location anywhere on the Earth's surface.
- **Gyrocompasses:** Gyrocompasses are employed to maintain reliable and stable heading information, aiding in accurate navigation even when GPS signals are unavailable.
- **Inertial Navigation Systems (INS):** INS systems use accelerometers and gyroscopes to calculate a vessel's position, velocity, and orientation, making them vital for precise navigation, especially during high-speed maneuvers.
- **Chart Plotters:** Chart plotters and electronic chart systems help visualize navigational charts and real-time vessel positioning, simplifying route planning and course monitoring.



## 6. Environmental Test Chambers:

Environmental test chambers are essential components of the Naval Science and Technology Laboratory (NSTL) that play a crucial role in evaluating the performance and durability of naval equipment and systems under extreme conditions. Here are 10 lines summarizing the importance and functionality of environmental test chambers in NSTL:

### Functions:

- **Diverse Testing Environments:** NSTL's environmental test chambers simulate a wide range of environmental conditions, including extreme temperatures, humidity levels, and corrosive atmospheres, allowing comprehensive testing of naval equipment.
- **Performance Assessment:** These chambers are used to assess how naval systems and materials perform in harsh environments, ensuring their reliability and effectiveness in real-world scenarios.
- **Temperature Testing:** Environmental chambers can subject equipment to extreme cold and heat, helping researchers understand how they perform in Arctic and tropical conditions, for example.
- **Humidity and Moisture Testing:** High humidity and moisture levels can accelerate corrosion and degradation. Chambers recreate these conditions to test materials' resistance and durability.

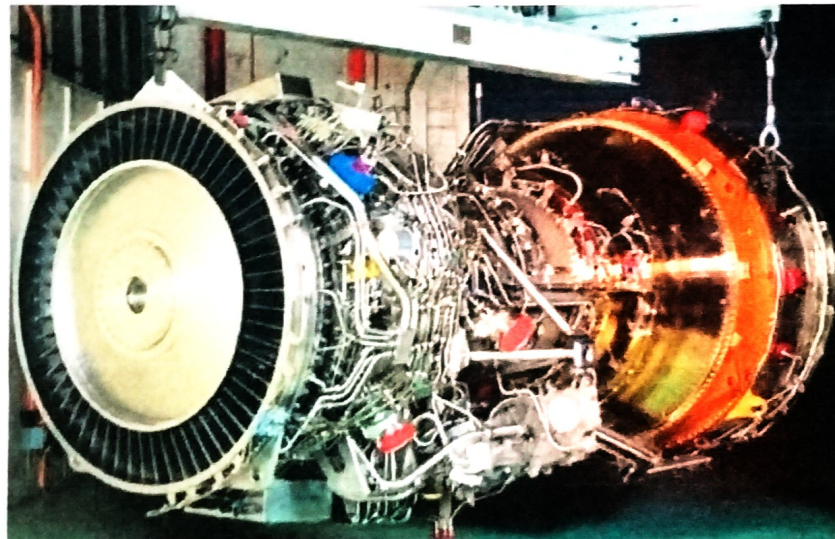


## 7. Marine Propulsion Labs:

Marine Propulsion Labs at the Naval Science and Technology Laboratory (NSTL) are specialized facilities focused on the research and development of propulsion systems used in naval vessels. These labs are pivotal in advancing the efficiency, performance, and reliability of propulsion technologies critical for naval operations.

### Functions:

- **Engine Testing Facilities:** NSTL's propulsion labs are equipped with state-of-the-art engine testing facilities where various types of marine engines, including diesel engines and gas turbines, are rigorously tested. These tests assess engine efficiency, emissions, and overall performance.
- **Performance Optimization:** Researchers in these labs work on optimizing the performance of marine propulsion systems to ensure they meet the stringent requirements of naval vessels, including submarines, surface ships, and aircraft carriers.
- **Fuel Efficiency:** NSTL places a significant emphasis on improving the fuel efficiency of marine engines. Propulsion labs conduct studies and experiments to develop technologies that reduce fuel consumption and environmental impact.
- **Emissions Reduction:** These labs also focus on reducing emissions from marine engines, contributing to cleaner and more environmentally friendly naval operations. This involves developing and testing emission control systems.



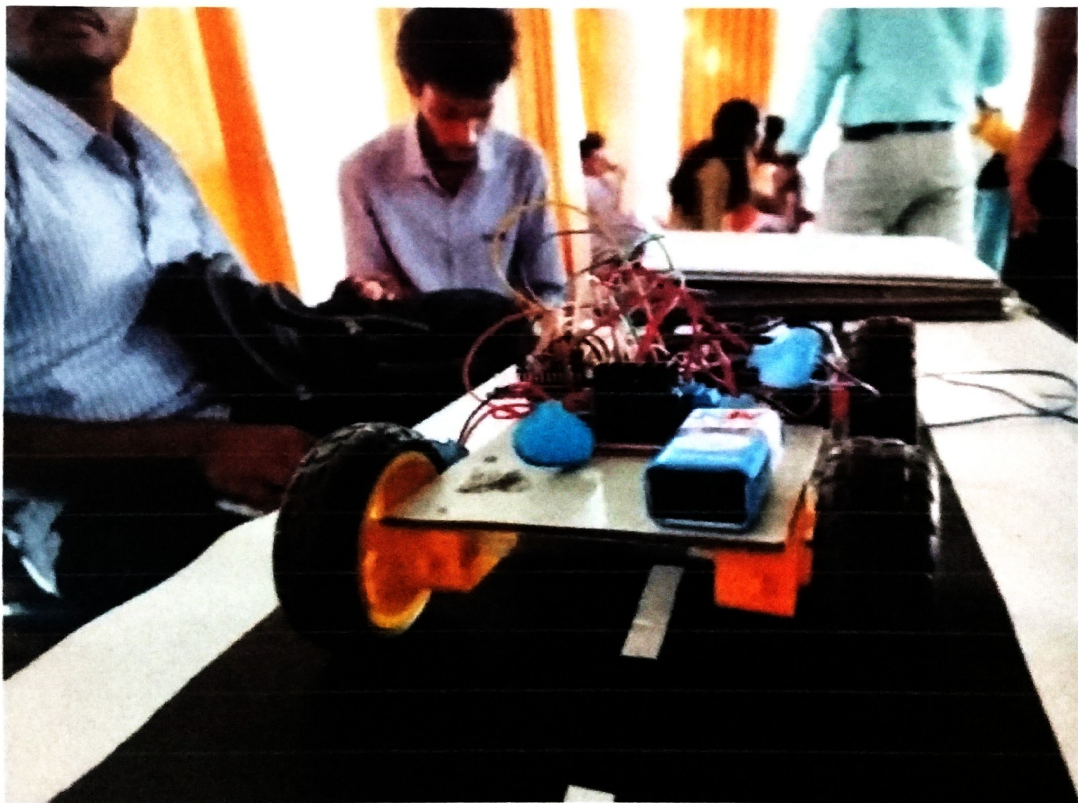
Marine propulsion

Students are watching the Achievements of NSTL



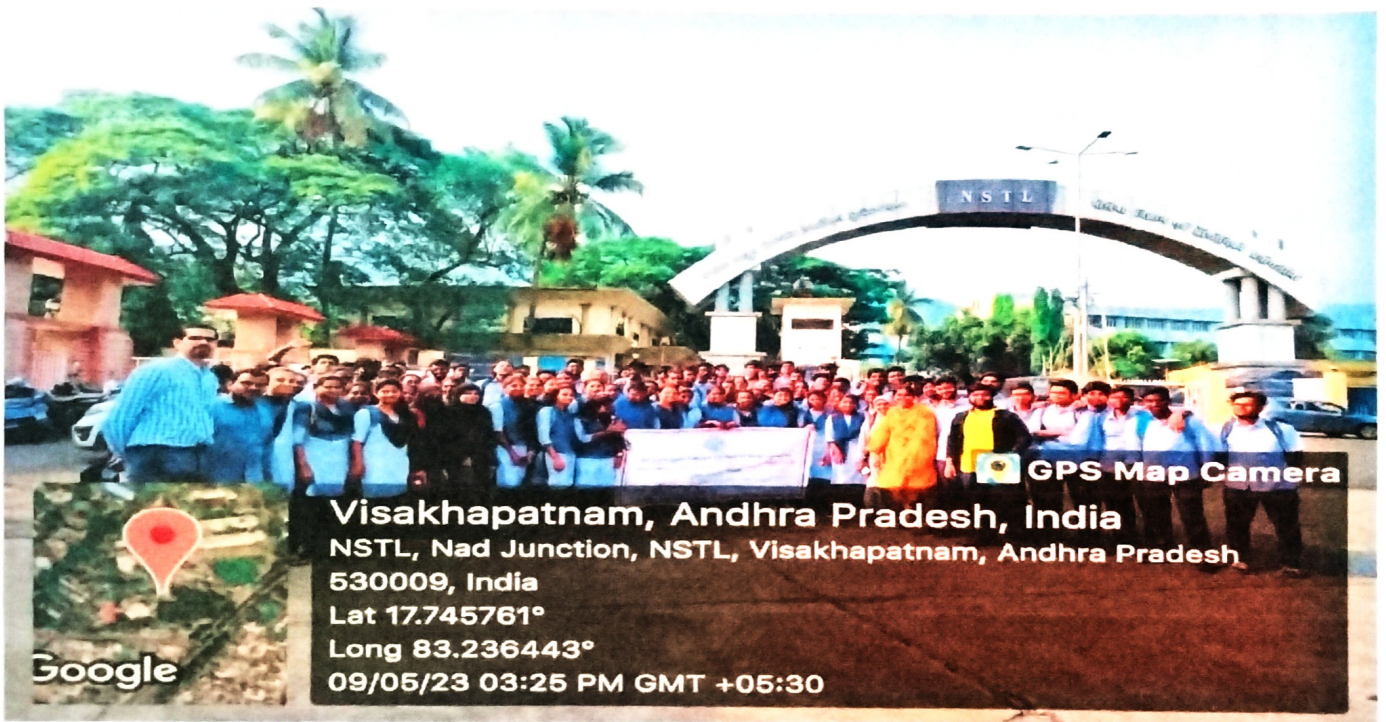
Students are explaining the model in the MODEL EXPO conducted at NSTL







B.Tech CIVIL Engineering Students at NSTL, Visakhapatnam



B.Tech ECE Engineering Students at NSTL, Visakhapatnam






B.Tech CSE Engineering Students at NSTL, Visakhapatnam



B.Tech EEE Engineering Students at NSTL, Visakhapatnam

  
**Principal**  
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 Visakhapatnam-530013, Andhra Pradesh