



nidm

Resilient India - Disaster Free India



सत्यमेव जयते



**Webinar on
"Sustainable and Safe Hill Area
Development with Focus on
Earthquakes, Landslides and
Floods"**

**Tuesday, September 22, 2020
(11:00 am - 01:00 pm)**

Jointly Organized by

**National Institute of Disaster Management (NIDM)
Ministry of Home Affairs, Govt. of India**

And

**Himachal Pradesh State Disaster Management Authority
(HPSDMA)**

ORGANIZING TEAM

Patrons

Major General Manoj Kumar Bindal, VSM
Executive Director, NIDM

Chairs

Sh. D.C. Rana
Special Secretary (Rev-DM)
Government of Himachal Pradesh

Prof. Surya Parkash
Head, GMR Division,
NIDM

Coordinators

Mr. Anil Kathait
YP, GMR Division, NIDM

Dr. Harjeet Kaur
Young Professional, NIDM

Mr. Raju Thapa
Young Professional, NIDM

IT Support

Mr. Balaji Ariputhiran, GIS Analyst, NIDM
Mr. Shobhit Sharma, Young Professional, NIDM
Mr. Gaurav Sinha, Young Professional, NIDM

CONTENTS

1. INTRODUCTION.....	1
2. OBJECTIVES	2
3. SUMMARY OF THE WEBINAR.....	2
4. KEY TAKEAWAYS	6
5. PARTICIPANT'S PROFILE.....	8
6. PROGRAMME SCHEDULE.....	8
7. POSTER.....	9
8. LIST OF PARTICIPANTS.....	10

1. INTRODUCTION

The rugged hilly terrains of country due to their peculiar geo-dynamics and geo-meteorological characteristics are prone to numerous disasters; inter alia, landslides, glacial lake outburst floods, cloud bursts, floods, flash floods, and earthquakes. Further, the anthropogenic pressure attributed to urbanization on unstable natural as well as built slopes is fabricating new risks of these disasters in the hills. More than 58 percent of the landmass is vulnerable to moderate to very high intensity of seismic hazards. Being one of the youngest mountain ranges in the world, the Himalayan regions lie in high intensity of earthquake zone. Around 21 states and 4 union territories of the country are susceptible to landslide hazards. Himalayan region and Western Ghats are among the highly landslide affected areas. The ecological conditions along with monsoon precipitation and other factors have fabricated over one-eighth of geographical area of nation prone to floods and river erosions. The climate change and its adverse impacts on temperature and precipitation patterns are indisputable and will further flame the quotient of disasters in hilly areas and will be constantly challenging our strategies of mitigation and management of those disasters.

National Institute of Disaster Management (NIDM) has been mandated by Sub-section 8 and 9, Section 42, Chapter 7 of Disaster Management Act 2005 to develop training modules and educational materials, undertake training, research, documentation and publication for capacity development and dissemination of knowledge / information related to disaster management, assist in formulation of policies, plans, strategies and frameworks for disaster risk reduction and resilience as well as promote awareness among different stakeholders for enhancing human capacity to avoid, prevent, mitigate, prepare, respond and recover efficiently in a proactive, holistic and integrated manner.

In pursuance to the mandate of Disaster Management Act 2005, NIDM organised a webinar on **"Sustainable and Safe Hill Area Development with Focus on Earthquakes, Landslides and Floods"**, Tuesday, September 22, 2020 between 11:00am - 01:00pm in collaboration with Himachal Pradesh State Disaster Management Authority (HPSDMA).

2. OBJECTIVES

The objectives of the webinar were as follows:

- To develop better understanding about hazards and sustainable, safe hill area development strategies;
- To develop solutions for development projects and mitigation and management of recurring disasters;
- To strengthen the resilience of our hilly areas against the recurring disaster;
- To discuss the collaboration and strengthening mechanisms for effective implementation of disaster management related activities at hilly areas.

3. SUMMARY OF THE WEBINAR

Inaugural Session



Prof. Surya Parkash, Head, GMR Division, NIDM raised the curtain of the webinar through his address and welcomed dignitaries of the inaugural session, distinguished speakers and the participants. I am particularly very much thankful to Hon'ble UD/TCP/Housing Minister, Government of Himachal Pradesh, Sh. Suresh

Bhardwaj who has kindly accepted our invitation to be part of this webinar, he added. I welcome each and every one and thank them for being part of this webinar.

Major General Manoj Kumar Bindal, VSM, Executive Director NIDM delivered Keynote address in the inaugural session in which he welcomed Sh. Suresh Bhardwaj, Hon'ble UD/TCP/Housing Minister, Government of Himachal Pradesh and other dignitaries of the inaugural session. The very presence of such



dignitaries on such platform shows the commitment of the state government to do something about it in the service of the community. Disaster management, public safety, sustainable development initiatives in the hilly terrains and capacity development are one of the essential components of planning, policy and decision making process at different levels in all sectors. It has been seen that the capacity of the affected communities is limited due to paucity of adequate

attitude, resources, institutional mechanism and at many places operational procedures, regulatory measures and enabling environments. So, this is also linked with lack of sensitivity, awareness gaps, and preparedness gaps among the vulnerable society against the potential impending risks. Therefore, there is a need to ensure that the effectiveness of response to these disasters is also relative to the coping capacities of communities. And it is perceived that an aware informed and prepared community is better able to cope in response to disasters situation than otherwise. So thus, there is a need to understand the levels of capacity in society against disasters. Capacity is at the core of the development of disaster management. Capacity to manage disaster risks and emergencies requires knowledge, skills, resources, motivation, and a particular attitude and mindset at different levels along all the sectors. Capacity development focuses on understanding the obstacles that integrate people or the government or the international organisations, or the NGOs from realising their goals, but while at the same time, they're enhancing their abilities that will allow them to achieve measurable and sustainable results.



Sh. Ajit Seth, IAS, Former Cabinet Secretary, GoI during his special address highlighted that hills are a natural biosphere reserve region, you know, for nine plants, mineral wealth, but there are problems also, they suffer from land erosion and vulnerable to seismic and weather phenomena. To develop hilly regions

there have been the central government programmes since the mid-60s. One thing to remember, and this is something which people tend to forget often is that whatever goes wrong in the hills ecosystem will have an effect on the plains as well. In order to continually update our knowledge and to increase human resources who are interested in this subject and who can become experts in the subject, we need to bring in more universities and organisations within the area of disaster research. To develop disaster response capacity at the local levels, especially inaccessible remote areas, community Based disaster risk management can be an alternative. To understand the hills, to understand the Himalayas or to understand the western hearts, hills in the south, but particularly in the Himalayan hills, we need to understand not just glacier moraine, but the whole life of the local residents, which is entwined with the Alpine ecosystem. Lack of enforcement of local laws or encroachment or lack of will, among the locals can often be seen. So we need to keep in mind not only engineering guidelines and engineering related guidelines, but also respect local customary sensitivities. So we need to respect local wisdom.

Sh. Suresh Bhardwaj, Hon'ble UD/TCP/Housing Minister, Government of Himachal Pradesh graced the inaugural session of the webinar as a Chief Guest. While enlightening the participants Hon'ble Chief Guest highlighted that India is vulnerable to a number of disasters due to their peculiar geo-dynamics and geo-meteorological characteristics. NIDM is a premium Institute and a statutory body mandated under Disaster Management Act 2005 for training, research, documentation, awareness and human resources and capacity enhancement in the field of disaster mitigation and management.



Our emphasis should be on multi stakeholder, interdisciplinary cross sectoral approach for an efficient proactive disaster risk management based on participatory integrated management concepts.

Technical Session



Sh. P. P. Shrivastav, IAS (Retd.), Former Member, North Eastern Council discussed the landslides issues of north-eastern part of India. Landslides triggered by earthquakes, heavy precipitation, or other causes are in fact, real big killers of men and animals, destroyers of property and disruption of communication

linkages. Landslides effective prevention and mitigation calls for a well-coordinated multi-disciplinary and multi-agency approach. Unlike earthquakes and tsunamis, landslides are predictable, preventable and controllable. There is a need to strengthen, amplify and accelerate the pace of scientific studies on occurrence, distribution processes, frequency and impact of landslides and link these studies organically and intimately with this landslide management in the multi hazard context. We can monitor unstable areas in real time, even during unfavourable weather conditions. It is time therefore, to launch a selected mission mode and project to initially cover timely prediction of all possibly reactivation of major old dormant and seasonal landslides.

Sh. D. C. Rana, Director-cum-Special Secretary (Rev-DM), HPSDMA in his talked highlighted that we have a lot of hazard which affects Himalayas and we are prone to almost all



type of hazard except for those which are related to coastal areas and other places. The entire Himalayan region is highly vulnerable to earthquakes. But the issue is have we learned and have we moved on and have we prepared ourselves for the earthquake disaster. Citing the example he added that if the buildings had earthquake resistant feature, then the loss of life in case of earthquake can be reducing to a great extent. We as a society don't have a culture of safety. So, that culture of safety needs to be built and a lot of efforts are required to do that.



Dr. Anil Prakash Joshi, Founder HESCO during his talk highlighted the community based solutions for DRR. The solution is better can come from the community rather than we have been thinking that the other source can help us a lot, really need to understand one very basic issue, what we have in the community in the

Himalayas, as a part of settlement that we have since ages, this age old knowledge and wisdom became culture and culture is always has is intact with the conservation also. We do not know the science of nature even today and had that been there the part of so called technology development processes. We really have to have a knowledge technology packet which is very inclusive of local ecosystem plus participatory. When considering any development related project in Himalaya we really need to think ecology inclusive economy package.

Prof. Surya Parkash, Head, GMR Division, NIDM mentioned that the development which is taking place both horizontally and vertically is very intense and unplanned, chaotic in nature. At national level we have developed guidelines for various hazards such as earthquakes, landslides, floods that can be considered for risk reduction.



Landslides are not only affecting spatially, but also temporally, the behaviour is different. So we must learn that how many landslides in what period of the year, or the season they are affecting and how they are resulting into adverse consequences is no direct relationship between the number of the events and the number of casualties and the economic trends. The drain if adequately provided during development times can mitigate the landslide hazards and there risk, we need to maintain them also, we are very good in development and investments, but we are not very good in maintenance, monitoring and manage.

Valediction Session



Major General Manoj Kumar Bindal, VSM, Executive Director NIDM in his concluding addresses highlighted the issues raised during the technical session of the webinar that are related to governance, practitioners and role of the community. Mutli-disciplinary nature and multi stakeholder engagement are critical for effective DRR strategies.

Mr. Anil Kathait, Young Professional, NIDM was the moderator of the webinar "Sustainable and Safe Hill Area Development with Focus on Earthquakes, Landslides and Floods". In the end he proposed vote of thanks to the inaugural session dignitaries, distinguished speakers and the participants.



4. KEY TAKEAWAYS

- More research needs to be done on what kind of education is best to convey construction ideas to a traditional rural population in the hills.
- The research also needs to be done to tackle some of the unresolved technical problems related to trying to use cheap local building materials for the seismicity resisting construction.
- Work is also required to be done and publicised on whether attempts made so far to persuade people to go in for safer housing construction have been effective. In particular, it needs to be examined to what extent government actions have influenced poor families who are not able to derive any benefit from the government machinery.
- Lack of sophistication in dealing with the housing in a post disaster environment is often seen, how you see the problem is that housing is often seen as a product rather than a process we tend to continue to ignore issues of financing or land tenure and land use and the question of capital flow within a disaster affected society.
- A balance has to be struck by the senior administrators and within government, between a programme approach and a policy approach to a disaster situation. Housing is such a crucial area that much work will always be required to be done involving various organisations beyond the government.

- Disaster management, public safety, sustainable development initiatives in the hilly terrains and capacity development are one of the essential components of planning, policy and decision making process at different levels in all sectors.
- Capacity of the affected communities is limited due to paucity of adequate attitude, resources, institutional mechanism and at many places operational procedures, regulatory measures and enabling environments. So, this is also linked with lack of sensitivity, awareness gaps, and preparedness gaps among the vulnerable society against the potential impending risks.
- There is a need to ensure that the effectiveness of response to disasters is also relative to the coping capacities of communities. And it is perceived that an aware informed and prepared community is better able to cope in response to disasters situation than otherwise.
- Capacity is at the core of the development of disaster management. Capacity to manage disaster risks and emergencies requires knowledge, skills, resources, motivation, and a particular attitude and mindset at different levels along all the sectors.
- Capacity development focuses on understanding the obstacles that integrate people or the government or the international organisations, or the NGOs from realising their goals, but while at the same time, they're enhancing their abilities that will allow them to achieve measurable and sustainable results.
- Our emphasis should be on multi stakeholder, interdisciplinary cross sectoral approach for an efficient proactive disaster risk management based on participatory integrated management concepts.
- We really have to have a knowledge technology packet which is very inclusive of local ecosystem plus participatory. When considering any development related project in Himalaya we really need to think ecology inclusive economy package.
- Unlike earthquakes and tsunamis, landslides are predictable, preventable and controllable. There is a need to strengthen, amplify and accelerate the pace of scientific studies on occurrence, distribution processes, frequency and impact of landslides.
- If the buildings had earthquake resistant feature, then the loss of life in case of earthquake can be reducing to a great extent.

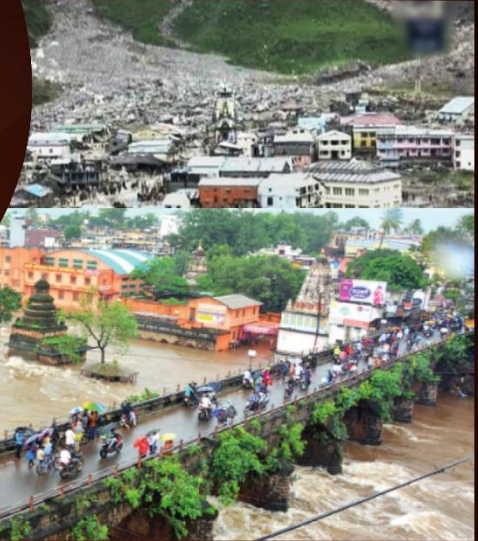



5. PARTICIPANT'S PROFILE

451 participants from across the country attended the webinar using Cisco Webex Platform. In addition, 299 people viewed the YouTube live streaming of the webinar. The YouTube link of the training programme is as follow: <https://www.youtube.com/watch?v=GKQTZh1XrhA>

6. PROGRAMME SCHEDULE

Day and Date	Time	Dignitary/Resource Person	Title of Talk
Tuesday 22 nd Sept. 2020	Inaugural Session		
	11:00-11:05	Prof. Surya Parkash, Head, GMR Division, NIDM	Welcome address
	11:05-11:12	Major General Manoj Kumar Bindal, VSM Executive Director NIDM	Keynote Address
	11:12-11:22	Sh. Ajit Seth, IAS Former Cabinet Secretary, GoI	Special Address
	11:22-11:37	(Chief Guest) Sh. Suresh Bhardwaj Hon'ble UD/TCP/Housing Minister Government of Himachal Pradesh	Inaugural Address
	11:37-11:40	Anil Kathait Young Professional, NIDM	Vote of Thanks
	Technical Session		
	11:40-11:55	Sh. P. P. Shrivastav, IAS Member, Advisory Board, NDMA and Former Member, North Eastern Council	Landslide Resilient Hill Area Development
	11:55-12:10	Sh. D. C. Rana Director-cum-Special Secretary (Rev-DM), HPSDMA	Earthquake Resilient Development in Hills
	12:10-12:25	Dr. Anil Prakash Joshi Founder HESCO	Challenges of Sustainable Development in Uttarakhand
	12:25-12:40	Prof. Surya Parkash, Head, GMR Division, NIDM	Flood Management in Mountainous Region
	12:40-12:50	Interactions, Discussions, Q & A session	
	Valediction Session		
	12:50-12:57	Major General Manoj Kumar Bindal, VSM Executive Director NIDM	Concluding Remarks
12:57-01:00	Anil Kathait Young Professional, NIDM	Vote of Thanks	

7. POSTER



Prime Minister's 10 Point Agenda 1 on DRR


Webinar on

Sustainable and Safe Hill Area Development with Focus on Earthquakes, Landslides and Floods

22
SEPTEMBER
2020

Time: 11.00 – 13.00 hrs

Chief Guest




Inaugural Address
Shri Suresh Bhardwaj
Hon'ble UD/TCP/Housing Minister,
Government of Himachal Pradesh

Keynote Address
Maj. Gen. Manoj Kumar Bindal, VSM
Executive Director, NIDM

Special Address
Shri Ajit Seth, IAS
Former Cabinet Secretary, GoI

Scan QR code




Registration at:
<https://forms.gle/1TNvx4P2Dd7YE6vu6>


Organized by :
National Institute of Disaster Management (NIDM)
Ministry of Home Affairs, Govt. of India
in collaboration with
Himachal Pradesh State Disaster Management Authority (HPSDMA)

Website: www.nidm.gov.in


DISTINGUISHED SPEAKERS




Shri P. P. Shrivastav, IAS
Member, Advisory Board, NDMA
and Former Member, North Eastern Council



Dr. Anil Prakash Joshi
Padma Shri and Padma Bhushan Awardee
Founder HESCO




Shri D. C. Rana
Director-cum-Special Secretary (Rev-DM),
HPSDMA







Prof. Surya Parkash
Head, GMR Division
NIDM

MODERATOR



Shri Anil Kathait
Young Professional
GMR Division, NIDM

Join YouTube @nidmindia
LIVE

   / nidmhindia  / nidmindia

8. LIST OF PARTICIPANTS

S. No.	Name	Email
1.	ZAHID KHAN	zahidkhan4517@gmail.com
2.	VIVEK KUMAR MAHARATHI	vivekmaharathi870@gmail.com
3.	VIVEK JAISWAR	vivekjaiswar999@gmail.com
4.	VITTHAL SUKHDEO BANDGAR	vsbandgar10@gmail.com
5.	VISHAL S. GHOLAP	vishal19gholap@gmail.com
6.	VINOTH KUMAR	vinothkumar.r@ktr.srmuniv.ac.in
7.	VINOD KUMAR SHARMA	vinodsharmabucholi@gmail.com
8.	VINOD K SHARMA	vksharma_gsi@yahoo.co.in
9.	VINOD BHARDWAJ	vinodbhardwaj677@gmail.com
10.	VINESH BISHT	luvbisht7@gmail.com
11.	VINAY KUMAR	2017.bitmtech@gmail.com
12.	VIKRAM SINGH	vnegi850@gmail.com
13.	VENKATARATNAM KAKARLA	venkataratnamkakarla@gmail.com
14.	VEENA KUMARI	vinuchoudhary87@gmail.com
15.	MALLIKHARJUNA RAO	mallikarjunenvironment@gmail.com
16.	VANDANA ANANT RABAD	vandanatokre123@gmail.com
17.	VAN NAING MAW	maivanneimawi@gmail.com
18.	BHUVANESHWARI SELVAMANI	bhuvaneshwari186@gmail.com
19.	USHA THAKUR	ushat68@gmail.com
20.	URMILA DEVI	tsomobodh@gmail.com
21.	UMESH J	umesh.jamakhandi@capricot.com
22.	UMAR MALIK	umarmalik.ufm22@gmail.com
23.	TUSHAR	tushardagade1@gmail.com
24.	ANIL KUMAR	trexanil@gmail.com
25.	TOMO KAWANE	kawanetomo337@gmail.com
26.	THIYAGARAJAN R	rashmithiyagu@gmail.com

27.	TEK BAHADUR KATUWAL	tekkatuwal.tk.tk@gmail.com
28.	TARANATH HEGDE	hegdets@gmail.com
29.	TANMOY SARKAR	tanmoygeoasu@gmail.com
30.	T.V.RAMAKRISHNA	tv1774@gmail.com
31.	TIMPI SAIKIA	timpi.saikia2011@gmail.com
32.	T. UMA BHAVANI	umabhavani01@gmail.com
33.	SYAM KUMAR S	syamkzm8055@gmail.com
34.	HARI SANKAR ROUT	swatpab@gmail.com
35.	SWATHI GANTI	swathiganti84@gmail.com
36.	SWAKANGKHA GHOSH	swakangkhaghosh23@gmail.com
37.	SUSMITA ROY KARMAKAR	roykarmakarsushmita1@gmail.com
38.	SUSANTA KUMAR MISHRA	susantakumar.mishra@gmail.com
39.	SURESH KUMAR	itcell2ndbn@itbp.gov.in
40.	SURESH KAPOOR	krishibhawan-hp@govt.in
41.	SURENDRAN D	surendran.phd@gmail.com
42.	SUPARNA DUTTA	supeedutta99@gmail.com
43.	SUNIL SINGH YADAV	sunilsinghyadav291@gmail.com
44.	SUNDARESWARAN V	uthavi.trust@gmail.com
45.	SUMIT MALIK	sumitmalik6257654@gmail.com
46.	SUMAN DAS	dassuman.1989@gmail.com
47.	SUMALATHA PHIRANGI	sumasobhan@gmail.com
48.	SUJOY KANTI BHATTACHARJEE	avtarsujoy1988@gmail.com
49.	SUFYAN GHANI	sufyan.ce19@nitp.ac.in
50.	SUDHIR KUMAR SAXENA	skmssaxena@gmail.com
51.	SUBHENDU BERA	berasubhendu86@gmail.com
52.	SUBHAMOY MAYRA	subhamoy9874@gmail.com
53.	SHRINIVAS VAIDYA	ssvaidya.cdi@gmail.com
54.	SRIRAMAN	sriramaniyer.k@gmail.com
55.	SRINIVASA RAO GANDUPALLI	g.srinivas.civil@gmail.com

56.	SRI NIVAS	srinivasbhavarajumsc@gmail.com
57.	SONIA THAKUR	rajputsonia94365@gmail.com
58.	SONA A	asona2016@gmail.com
59.	SOMNATH BERA	bera.somnath2007@gmail.com
60.	SNIGDHA KALITA	kalitasnigdha1994@gmail.com
61.	SNEHAL KHALATE	khalatesnehal14@gmail.com
62.	SINCHANA D GOWDA	sinchana026@gmail.com
63.	SIMPAL SAKALANI	simpal.saklani@gmail.com
64.	SIDHU REVANDH	sidhurevandh@gmail.com
65.	SIDDHARTH JAISWAL	siddharthjaiswal2208@gmail.com
66.	SHYAMKUMAR M.V	mvshyamkumar11@gmail.com
67.	SHURMILI R V	rvshurmilibsc@gmail.com
68.	SHUBHAM MAHESH SHRIWAS	shubhamshriwas1028@gmail.com
69.	SHRAVAN KESARKAR	srkesarkar@hpcl.in
70.	SHOBHANA LAKHERA	shobhana303@gmail.com
71.	SHOBHA MURALI	shobhamurali@yahoo.com
72.	SHIVAMKUMAR UPADHYAY	shivamupadhyay1812@gmail.com
73.	SHIPRA SONI	shiprakumar0109@gmail.com
74.	SHIKHA SINGH	naina0429@gmail.com
75.	SHIBIN P SHAJI	shibinpshaji1997@gmail.com
76.	SHAVEEN SHARMA	shaveen.sharma@ril.com
77.	SHASHI SHEKHAR	shashi_ptn@yahoo.com
78.	SHASHI MOHAN	smsharma015@gmail.com
79.	SHASHI KUMAR	shashibhu85@gmail.com
80.	SHASHANK RAI	shashankrai57@gmail.com
81.	SHANTI JAISWAL	shantijaiswal47@gmail.com
82.	SHANTANU VERMA	shantanuverma2@gmail.com
83.	SHAKIL ROMSHOO	shakilrom@kashmiruniversity.ac.in
84.	SHAKEEL AHMED	sweetshakeel2020@gmail.com
85.	SHAILESH MAHADEV JAGTAP	shailesh.agni@gmail.com

86.	SHAIENDRA REGAR	shailendregar143@gmail.com
87.	SHAHZAD AHMED MALIK	calmsoulforever@gmail.com
88.	SAURAV CHOUDHURY	saurav.choudhury@cii.in
89.	SAURABH SHARMA	sharmasory@gmail.com
90.	SAUD UL HASAN	saudulhasan1994@gmail.com
91.	SATYENDRA NATH YADAV	sny.mmmec@gmail.com
92.	SATYABRATA HOTA	hotasatyabrata1992@yahoo.com
93.	SATPAL SINGH	satpal2all@gmail.com
94.	SATEESH KUMAR.V	sateeshkumarvytla@gmail.com
95.	SAROJ BALA	sk801510@gmail.com
96.	SARITA PUSHKAL MAURYA	saritamaurya0211@gmail.com
97.	SANWAR MAL SWAMI	sanwar.swami@gmail.com
98.	SANTOSH KUMAR MEENA	santoshkumarmeena9896@gmail.com
99.	SANTOSH KUMAR DEY	santoshdey901@gmail.com
100.	SANJAY KUMAR NATVARBHAI CHAUHAN	sanjaykumarchauhan91@gmail.com
101.	SANJAY KUMAR	sanjaykumar873136@gmail.com
102.	SANJANA S	sanjanasukumar98@gmail.com
103.	SANDHYA GAUTAM	sandhyagautam1@gmail.com
104.	SANDEEP KUMAR	sandeepkj4@gmail.com
105.	SANDEEP DHERE	dheresandeep83@gmail.com
106.	SAMEEKSHA KAUSHIK	sameekshakaushik@gmail.com
107.	SAMBHAJI PAWAR	pawarsambhaji42@gmail.com
108.	SALEEM AHMAD YATOO	yatoosaleem20@gmail.com
109.	SAJITH.V	sajithmvi@gmail.com
110.	SAJID KHAN	anonymous.sajid@gmail.com
111.	SAGAR VALANJU	sagarvalanju10@gmail.com
112.	SAFEEDA SAFAR	safeedazafar@gmail.com
113.	SADDAM HUSAIN	husain.saddam28@gmail.com
114.	SACHIN PAL	sachinpal080896@gmail.com

115.	SWAPNA ACHARJEE	swapna1apsrsac@gmail.com
116.	S A MURUGESAN	samurugesan@gmail.com
117.	RUCHI GODIYAL	ruchigodiyal1@gmail.com
118.	RUBU MAMUNG	mamungrubu100@gmail.com
119.	ROSHANI BASERA	baseraroshani2228@gmail.com
120.	ROHIT KUMAR	rohitgeologist@gmail.com
121.	RITVIK CHAUHAN	ritvik7@gmail.com
122.	RITU DHILLON	reetu2608@gmail.com
123.	RITESH KUMAR	heerrk77@gmail.com
124.	RITA SHARMA	rita.sanjeev.sharma@gmail.com
125.	RINKU NAG BISWAS	vu2jfb@gmail.com
126.	RINKU	rinkku320@gmail.com
127.	REVATHI	srevathi265@gmail.com
128.	RESHMA VILASAN	reshmavilasan@gmail.com
129.	RENJITH S	renjisasi@gmail.com
130.	REMALYN AGGASID CUDAL	remalyncudal@yahoo.com
131.	REENASINGH LUTHRA	reenasingh.luthra@gmail.com
132.	RAVINDRA REDDY M	ravindraoudepts@gmail.com
133.	RAVINDER PRAKASH	ravi.bharari@gmail.com
134.	RAVI OJANAHALLI	dmc.udupi@gmail.com
135.	RAVI KUMAR	4ufreedom@gmail.com
136.	RAKESH PRAKASH NAITHANI	rasudh@gmail.com
137.	RASHMI SAGAR	r9719970433@gmail.com
138.	RASHMEE LOKHANDE	harshlok@gmail.com
139.	RANJITHKUMAR A	ranjithkumar.ds26@gmail.com
140.	RAM KUMAR	ramkumar9418994211@gmail.com
141.	RAMESH DESAI	rmavchi2012@gmail.com
142.	RAMANDEEP KAUR	ramandeepkaur1131@gmail.com
143.	RAMANARASIMHA RAO BURRI	narasimha.geol@gmail.com

144.	RAMANAND PATEL	ramanandpatel2006@gmail.com
145.	RAKESH KUMAR BHATT	rakesh75ch@gmail.com
146.	RAKESHKANT SHARMA	rakeshkantsharma@gmail.com
147.	RAKESH KUMAR NAYAK	rakesh.nayak@icicifoundation.org
148.	RAKESH KUMAR	rakeshkumarkalsi@hotmail.com
149.	RAKESH DOBHAL	rakeshdobhal2006@gmail.com
150.	RAKESH	rkbhardwaj63@gmail.com
151.	RAJU SHAHI	shahiraju2014@gmail.com
152.	RAJU	rajudhanuk.713@gmail.com
153.	RAJIB DAS	mnebaksa@gmail.com
154.	RAJENDRA LOKHANDE	lokhanderaaj15@gmail.com
155.	RAJAT	rajatbahuguna97@gmail.com
156.	RAJASEKARAN SANKARAN	crseer78@gmail.com
157.	RAJAN KUMAR	rajan.sharmanov1991@gmail.com
158.	RAJ MOHAMMAD	rajchp786@gmail.com
159.	RAHUL KUMAR S	rahul.sachu.1998@gmail.com
160.	RAHUL JUGRAN	rahuljugran03@gmail.com
161.	RAHUL GORAI	rahulgorai446@gmail.com
162.	RADHA KRISHAN	radheyindia@hotmail.com
163.	RADAK BLANGE	radakblange@gmail.com
164.	R. AYISHA	r.aiysha786@gmail.com
165.	PRIYA BRAT SHARMA	sharmapriyabrat700@gmail.com
166.	PRISCILLA MARIYA PHILIP	priscilla.neenu@gmail.com
167.	PRERNA GHALAUT	prernagahlaut93@gmail.com
168.	PREM KUMAR	prem0431@gmail.com
169.	PRATYUSH AMRIT	pamritsahoo@gmail.com
170.	PRATIK CHATURVEDI	pratik.pratikchaturvedi@gmail.com
171.	PRATHMESH PAWAR	prathmeshpawar2995@gmail.com
172.	PRASANTA MUJRAI	prasanta.vugol@gmail.com
173.	PRAKASH CHAND	prakashchand634@gmail.com

174.	PRAJWAL BISWAS	prajjwalbiswas7@gmail.com
175.	PRADOSH RANJAN JENA	jenapradosh29@gmail.com
176.	PRABUDDH MISHRA	prab19@gmail.com
177.	PIYUSH RANJAN	dirmashimla-cwc@nic.in
178.	PINTU KUMAR SHAH	pintushah369@gmail.com
179.	PINKY PRAJAPAT	pinkyprajapat5502@gmail.com
180.	PINIPE.NAGABHUSHANAVAR MA	geology.varma@gmail.com
181.	PAWAN KUMAR	ddmasolan@gmail.com
182.	PARKAVI	kks.pooji6@gmail.com
183.	DHEERAJ RAMOUL	societyparayas1@gmail.com
184.	PANKAJ KUMAR	pankaj.webscomputer@gmail.com
185.	PANKAJ GUPTA	pankgupt21@gmail.com
186.	NOUREEN	nonniemir@gmail.com
187.	NITIN SHARMA	nitin.53814@gmail.com
188.	NITIN PURABIYA	nitinpurabiya007@gmail.com
189.	NITHYANAND NARAYANASWAMY	nnandswamy@gmail.com
190.	NISSAR HUSSAIN	nissarkakpory@gmail.com
191.	NISHI IFTIKHAR	nishiiftikhar786@gmail.com
192.	NISHANT BODHWANI	nishantbodhwani@gmail.com
193.	NIRMAL CHAND MALOOKA	chandnirmal5@gmail.com
194.	NIRAJ KUMAR PANDEY	kumarnirajpanday@gmail.com
195.	NIMISHA N MENON	nimishamenon98@gmail.com
196.	NIKHIL S	haforestryksdma@gmail.com
197.	NICKSON TATENDA DZVANZVA	nicktats94@gmail.com
198.	NICHOLAS KHUNDRAPAM	nicholaskhsingh@gmail.com
199.	DEVENDER DUTT SHARMA	nhndev2@gmail.com
200.	NEHA THAKUR	neha33thakur44@gmail.com
201.	NEHA SHARMA	nehashar05@yahoo.com

202.	NEERAJ KUMAR	neerajsardhana@gmail.com
203.	S. NEELA NATESH	natesh.civil95@gmail.com
204.	NAVNEET YADAV	navneet@doers.ngo
205.	NAVDEEP SINGH	navdeepdcd@gmail.com
206.	GULZAR AHMED	ggulzar451@gmail.com
207.	NASIR UL ISLAM	nasirulislam623@gmail.com
208.	NARSIRAM	narsiramchoudhary111@gmail.com
209.	NARENDER KUMAR	gis.narender@gmail.com
210.	NARENDER KAITH	naren.kaith@gmail.com
211.	NAMRATA PATIL	namratambursepatil@gmail.com
212.	N.BHUVANESHWARAN	bhuvanesh1082@gmail.com
213.	MULLAI VASANTHAN M	mullaivasanthan1998@gmail.com
214.	MUDASSIR ABDULLAH	mudassirabdullah90@gmail.com
215.	MRINALEE BASUMATARY	mrinaleemiaca@gmail.com
216.	D. E. NIRMAN KANNA	nirmankanna.d.e@gmail.com
217.	MOHMAD SUHAIL WANI	suhailwani1911@gmail.com
218.	MOHIT SHARMA	mohit.sharma44332211@gmail.com
219.	MOHIT KUMAR	mohitk@irade.org
220.	MOHD WASEEM	waseemjmi111@gmail.com
221.	MOHD ARSHI KHAN	arshikhan12591@gmail.com
222.	MOHAMMED UMMER	mohammedumer@yahoo.com
223.	MOHAMMAD DANIS KHAN	mdkdaniya@gmail.com
224.	MIR SHAHID AHMAD SHAKOOR	mirshahid3982@gmail.com
225.	MIJANUR ANSARY	mijanuransary@outlook.com
226.	MERLYN DSA	merlyndsai1@gmail.com
227.	MEHTAB SINGH RATHORE	mehtab1998singh@gmail.com
228.	MD SHAMSHAD	shamshad.md134@gmail.com
229.	MD SAEEDANWAR	mksaeedanwar766@gmail.com
230.	MAULI MISHRA	mauli.mishra@yahoo.com

231.	MARTIN FREDRICK RAJ	martinfredrickraj@outlook.com
232.	MANOJ YADAV	manoj198yadav@gmail.com
233.	MANJIT MAHANTA	mahantamanjit2908@gmail.com
234.	MANISHA MALIK	mannu.manisha@gmail.com
235.	MANISHA DRALL	itsmanishadrall@gmail.com
236.	MANISH TOMAR	tomarm005@gmail.com
237.	MANISH SAWANT	sawantmanish213@gmail.com
238.	MANISH KUMAR GUPTA	mkumar.kth@gmail.com
239.	PROF.DR.I.MANAVALAN	imanavalan56@gmail.com
240.	DR. MALLANNA.C	mallannac@gmail.com
241.	MALIK TAWQEER UN NISA	tawqeerunnisa@gmail.com
242.	MAHESH JADHAV	maheshbjadhav2008@gmail.com
243.	MAHENDRA D WAGHMARE	mdwaghmare25@gmail.com
244.	MAGESH DEVENDRAN	mageshdevendran@gmail.com
245.	M. S. VAIDYANATHAN	msvaidyanathan2009@gmail.com
246.	M. PANNEERSELVAM	panneerselvamtrupa@gmail.com
247.	LUBNA SIDDIQUI	s_lubna2004@yahoo.co.in
248.	LAWAL EZEKIEL ABIODUN	lawal.ezekiel65@gmail.com
249.	LATA THAKUR	deodm19@gmail.com
250.	LAL MOHAMMAD	lalmohammadwb@gmail.com
251.	LACHHMAN SINGH RAWAT	lachhmansinghrawat@yahoo.co.in
252.	LABANI SAHA	labani.tfg@gmail.com
253.	L. T. SASANG GUI TE	Itsquite@gmail.com
254.	KUNAL KANTI MAITI	kunal.rs.gis@gmail.com
255.	KUMAR GANESAN	kumarg@hku.hk
256.	KULDEEP SINGH	ksingh_2@yahoo.com
257.	KRITI DEKA SINGHA	kritideka@gmail.com
258.	KOUSTAV DUTTA	duttakoustav15@gmail.com
259.	KOMAL KUMARI	komalkumari2416@gmail.com
260.	KHUSHBOO KHANNA	khushboearch@gmail.com

261.	KEDAR NAH DAHAL	kedardahal99@gmail.com
262.	KAUSHIK KUMAR SINGH	singhkaushik175@gmail.com
263.	KARAM CHAND SHARMA	civildefencenewdelhi@gmail.com
264.	KANGKAN LIGIRA	kangkanligira@gmail.com
265.	KANDAGATLA SAI TEJA	kandagatlasaiteja2002@gmail.com
266.	KAMLESH KUMAR	kamleshias201@gmail.com
267.	KALZANG DUNNY	kalzangdunny@gmail.com
268.	JOYDEB SARDAR	joydebsardar18@gmail.com
269.	JITESH SURWADE	jeeteshsurwade@gmail.com
270.	JITENDER SINGH	jitendersinghtanwarkuk@gmail.com
271.	JITENDER	jitendertanwar00@gmail.com
272.	JIT52.JC	jit52.jc@gmail.com
273.	JIGNESH JADAV	jigneshjadav@gmail.com
274.	JIGMET SINGAY	singayleh@gmail.com
275.	JAYAKUMAR K S	jktvm@hotmail.com
276.	JAY KULKARNI	jaykulkarni2@gmail.com
277.	JAVED AHMED	javedahmed163@gmail.com
278.	JANAGANI SREERAMULU	sreeramululife528@gmail.com
279.	JAIPRAKKASH PULLAKUDY	vu2jpn@gmail.com
280.	JAINOO SINGH CHOUDHARY	29jainoo@gmail.com
281.	IRSHAD AHMAD	thokerirshad391@gmail.com
282.	IRFANA THABASUM	thabasumsirfana@gmail.com
283.	IQRA HASAN	iqrahasan29@gmail.com
284.	IMRAN KHAN	saifiearth@gmail.com
285.	IFTIKHAR HUSSAIN	snowleoparde786@gmail.com
286.	HOMOLATA BORAH	homolata.borah@gmail.com
287.	HITESH BAROT	barothitesh13188@gmail.com
288.	HINOTOLI V SEMA	hinotolivsema@gmail.com
289.	HIMANI BISHT	himanibisht85@gmail.com
290.	HEMANT KAPSE	hemantyt@gmail.com

291.	HEMANT KUMAR NAGAR	hemantnagar47@gmail.com
292.	DR. J. HELAN CHANDRA	helananand@gmail.com
293.	HARSHA G	harshachittadi@gmail.com
294.	HARSH PARGAL	harshpargalvasu@gmail.com
295.	HARISH KUMAR	harishpanwar210@gmail.com
296.	HARIDWARILAL KORI	haridwarikori85@gmail.com
297.	HARI KUMAR	hari@geohaz.org
298.	HARDAVI SINGH RAO	hardavisingh1312@gmail.com
299.	HARBAKHASH SINGH	hs.civildefence@gmail.com
300.	GULAM MOHIYUDIN SHEIKH	mohammedsameersheikh40@gmail.com
301.	MAHAJAN GHANSHYAM TRYAMBAKRAO	ghanshyam6853@yahoo.co.in
302.	GOURISHA RS	gourisha.rs@gmail.com
303.	GOPI SINGH	gopisingh8473@gmail.com
304.	GOPAL BARIK	barikgopal96@gmail.com
305.	WAQUAR UL ISLAM	waquarulislam@gmail.com
306.	GIRISH UPADHYAY	girish600@gmail.com
307.	GIRISH JOSHI	algirish@gmail.com
308.	GIREESH KUMAR KRISHNANKUTTY	gireeshayikkara@gmail.com
309.	GHANSHYAM SHARMA	nprajgarh@gmail.com
310.	GAYATRI KAR	gayatri.kar991@gmail.com
311.	GAURAV SHARMA	gauravmmmtu@gmail.com
312.	GAURAV MEHTA	gaurav.undp@gmail.com
313.	GARIMA SHARMA	cbdcshimla@gmail.com
314.	GANESHR	ganeshr111247@rguktrkv.ac.in
315.	GANDHISELVAN R	gandhirselman@gmail.com
316.	GAGAN BIHARI	gagansinghrajput941@gmail.com
317.	FIROZ K. THATHI	firoz.thathi@acctrust.in

318.	FAHEEMUL ISLAM KIRMANI	faheemul.islamkirmani@galgotiacollege.edu
319.	EVA PC LALNUNMAWII	evapcmawii@gmail.com
320.	ER. NATHU THOMBARE	nathuthombare76@gmail.com
321.	ER R A KHURAL	bro.khural@gmail.com
322.	EMIL JOSHINTH	camemiljoshinth@gmail.com
323.	DR. VIJAYA BHARATHI	bodduvijayabharathi@gmail.com
324.	DR. SANJEEV KUMAR VERMA	drsanjeevkumarverma06@gmail.com
325.	DR. P. ALAGURAJA	alagugeo@mail.com
326.	DR. NELIA LOIS CHAUH	nelialois.chauhan@yahoo.in
327.	DR. MURUGARAGAVAN RAMASAMY	rmrtnau@gmail.com
328.	DR. MUKESH P. JADAV	mananjadav1986@gmail.com
329.	DR. JITENDRA JOSHI	drjoshijitendra@gmail.com
330.	DR. AMBALAL KATARA	adkatara.katara@gmail.com
331.	DR. ABHRANKASH KANUNGO	abhrankashk@gmail.com
332.	DR. SUDHIR KUMAR	kumardrsudhir660@gmail.com
333.	DR. SHARWAN KUMAR SINGH	sharwankumarsingh@gmail.com
334.	DR. S. SRIKANTAPRASAD	geosriprasad@gmail.com
335.	DR. MINUTHA V	minumini89@gmail.com
336.	DR. MANOJ KUMAR PANDEY	dr.manojkumarpandey@yahoo.com
337.	DR. HARKANCHAN SINGH	harkanchan15dm@gmail.com
338.	DR. GHAZAL SALAHUDDIN	ghazal.salahuddin@gmail.com
339.	DR. BAIDYANATH KUMAR	vaidyageo@gmail.com
340.	DR. ASHOK KUMAR KAUSHIK	drakaushik26@gmail.com
341.	DR. AKSHAY KUMAR	akshay61296@gmail.com
342.	DR. AJAY CHHETRI	acgeosgc@gmail.com
343.	DR. RANAJIT JANA	ranajit.jana@pdm.ac.in
344.	DR SUDESH WADHAWAN	wadhawansk.leo@gmail.com
345.	DR SATYANARAYAN HOTA	drsatyahota111@gmail.com
346.	DR SANSKRITI MUJUMDAR	ssmujumdar-ced@msubaroda.ac.in

347. DR SANGEETA CHAUHAN schauhan9336@gmail.com
348. DR RAHUL GHATWAL drghatwal@yahoo.co.in
349. DR NISHA JOSHI nishajoshi.yoga@gmail.com
350. DR MANOJ P manoj@amrita.edu
351. DR MAHIPAL SINGH BHADOURIYA msb111sprmn@gmail.com
352. DR ASHISH SINGH asmausam@gmail.com
353. DR AJAY PRATAP SINGH ajay9411085068@gmail.com
354. DIWAKAR BHATAWADEKAR diwadiwa102@gmail.com
355. DIVYA DARSHNE divyadarshne6@gmail.com
356. SANJEEV KUMAR SINGH ddmasonbhadra1@gmail.com
357. DINKAR KUMAR dinkarkumar297@gmail.com
358. DINESH KUMAR dinesh.puchd@gmail.com
359. DIBAS MANDAL mandal.dibas123@gmail.com
360. DHRUVAL BHAVSAR bhavsardhruval@gmail.com
361. DHRAM CHAND er.dcthakur69@gmail.com
362. DHIRENDRA SINGH RAUTHAN dhiren.rauthan@gmail.com
363. DHEERAJ DDMA UNA dheerajdk10@gmail.com
364. R. DHARSHIKA bk.dharshika@gmail.com
365. DHANESH LAL dhanesh.s.lal@gmail.com
366. DEVA RAM devarcherparihar1995@gmail.com
367. DELNA JOY K delnajoyk1997@gmail.com
368. DEEPALI SHARMA dsdrpgmc@gmail.com
369. DEBODYUTI ROY debodyutir@gmail.com
370. DEBASISH SARKAR debasishsarkar0006@gmail.com
371. DAWOOD ISRAR engrdawood86@gmail.com
372. PIYUSH DAS das.piyusha@gmail.com
373. CZARINA VARGAS vhaggiehinah027@gmail.com
374. CHILLA LAKSHMINARAYANA lakshmanc33@gmail.com
375. CHARLYN SALVADOR charlynsalvador1895@gmail.com

376.	CHANNAMALLAPPA N SAVADATTI	rajeevns999@gmail.com
377.	CHANDRASHEKHAR K GUND	nrdms.bagalkote@gmail.com
378.	CELSIYA DANY	shanpieo01@gmail.com
379.	BRIJESH KUMAR SHUKLA	shuklabitr@gmail.com
380.	BISWANATH SAHOO	sahoo.biswanath67@gmail.com
381.	BINDIYA DAS	bindiyadas1997@gmail.com
382.	BHASKAR JYOTI BURAGOHAIN	haughtyheptagon@gmail.com
383.	KAMAL BHANDRI	bhandari7309@gmail.com
384.	BHAGAT SINGH NEGI	hinabhagat21@hotmail.com
385.	BHAGAT SINGH	bhagatsingh1967@gmail.com
386.	B D BAGGA	ud-hp@nic.in
387.	BALVINDER SINGH	balvinder.8687@gmail.com
388.	AYUSHI PRAKASH	ayushi.prakash@yahoo.com
389.	AWDHESH KUMAR	er.awd.civil@gmail.com
390.	AVINASH KHUSHBOO	akhushboo@polyplex.com
391.	AUSTIN RAJ	austinvbl@gmail.com
392.	ARVIND KULDEEP	arvindkkuldeep@gmail.com
393.	ARVIND CHAUHAN	arvindchauhan.chauhan081@gmail.com
394.	ARUNAVA RAY	arunavar.rs.min16@iitbhu.ac.in
395.	DR. VASUNDHARA MANOCHA	vasumanocha@gmail.com
396.	ARUN KUMAR TAHELIA	arunddma@gmail.com
397.	ARUN KUMAR	arunmharpa12@gmail.com
398.	ARSHDEEP SINGH PAL	arshdeepsinghtb@gmail.com
399.	ARJUN PS	arjunpsomanath@gmail.com
400.	ARCHANA	archana54078@gmail.com
401.	ARAVINTH R	aravinthraja662891@gmail.com
402.	ANURUPA PAUL	anurupapaul2017@gmail.com
403.	ANURADHA	anuradharana39@gmail.com
404.	ANURADHA	anuradha@doers.ngo

405. ANUMOL SAJEEV anusajeev1997@gmail.com
406. ANTO MELVIN MATHEW antomelvinmatheW@gmail.com
407. ANTARA GUPTA antaragupta01@gmail.com
408. ANSHUL SHARMA drasharma28715@gmail.com
409. ANSHUL RANA anshulrana44572@gmail.com
410. ANKUR NEGI ankur.niua@gmail.com
411. ANKITA SHARMA ankita.geors@gmail.com
412. ANKEET PANDA ankit.ku.panda@gmail.com
413. ANJU V JAMES anjuvjames1997@gmail.com
414. ANJU P SANTHOSH anjupsanthosh1998@gmail.com
415. ANJALI anjali.ddma@gmail.com
416. ANITA SINGH asingh581989@gmail.com
417. ANIL K. MALIK sales.atmindia@gmail.com
418. ANIKET YADAV tristo237@gmail.com
419. ANDREWS DEVARAJAN andrewsdevarajan@gmail.com
420. ANANDA KUMAR BEHERA ananda.ginnar@gmail.com
421. AMRIT SUSHOVEET BEHERA amritbehera36@gmail.com
422. AMITESH GUPTA amitesh13gupta14@gmail.com
423. AMIT SHARMA amit.usdma@gmail.com
424. AMIT HARI GURAV amit.h.gurav@gmail.com
425. AMIT BAG bag.amit052087@gmail.com
426. AMIR ALI KHAN amirm640@gmail.com
427. AMBIKA RABHA ambikarabha04@gmail.com
428. AMARTHIGA K amarthiga@gmail.com
429. AMAN KUMAR amank.geo@gmail.com
430. AMAN KUMAR dmpddmabgs@gmail.com
431. AMAL JOSEPH amaljoseph0370@gmail.com
432. ALOK SINGH BARGAH alokbargah786@gmail.com
433. ALOK MISHRA jigermishra@gmail.com
434. ALOK CHAUDHARY alokchaudhary05011996@gmail.com

435.	ALLWIN ANTONY	allwinbestfriend01@gmail.com
436.	ALAMDAR HUSAIN	alamdarhusain1991@gmail.com
437.	AKSHAY PANWAR	akshay84187@gmail.com
438.	AKSHAY ARUN SHELAK	akshay111shelake@gmail.com
439.	AKHILESH KUMAR GOUTAM	lecturer_akhilesh@outlook.com
440.	AKHIL KUMAR KORNATH	akhilkumarr@gmail.com
441.	AJAY JADHAV	ajay.jadhav.07@gmail.com
442.	AJAY DUGGAL	duggalajayk@gmail.com
443.	AIN DUTT	aindutt59@gmail.com
444.	ABIRAMI M.	abiramimohan30@gmail.com
445.	AASTHA JOSHI	aasthajoshi754@gmail.com
446.	AARSHA GS	aarshags9847@gmail.com
447.	AAKASH UPADHAYAY	akashdse@gmail.com
448.	A.NAGALAXMI	pallu.teju@gmail.com
449.	D. B. KAITH	dbkaith@gmail.com
450.	AVTAR SINGH	rajdhaniscoutgroup@gmail.com
451.	SUSHILA	sushmintu@gmail.com