

Department of Civil Engineering

KIET Group of Institutions, Ghaziabad

Department of Civil Engineering

Summary Report of Summer School

Name of the Program: Introduction to Concrete Technology Including Mix_Design

Duration: 25 June to 30 June 2018

Curriculum: (i) Introduction to concrete technology.

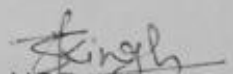
(ii) Study of SP23 Handbook on Concrete mixes.

(iii) Concrete Mix Design calculations.

(iv) Preparation and Testing of Concrete Mix in Concrete Laboratory.

Assessment procedures: Feedback and Viva-Voice

Outcome: Students were able to understand the concepts of concrete technology and its usefulness. The students acquired the knowledge of various ingredients of concrete and its importance leading to the design of the required quality of concrete. The students were able to design the concrete mix theoretically as well as practically in the laboratory.


HOD, CE

DEPARTMENT OF CIVIL ENGINEERING, KIET GHAZIABAD

Summer School 2017-18

(2) Introduction to Concrete Technology including Mix Design

Fee : Rs. 400/-

Attendance Sheet

S.No.	Roll No	Name	Sem	25/06/2018	26/06/2018	27/06/2018	28/06/2018	29/06/2018	30/06/2018
1	1602900015	Ankur Vaiyagra	IV	P	P	P	P	P	P
2	1502900049	Gaurav Kumar Pathak	VI	P	P	P	P	P	P
3	1502900099	Sandeep Verma	VI	P	P	P	P	A	P
4	1602900090	Saurabh Saxena	IV	P	P	P	A	P	P
5	1602900085	Sachin Singh	IV	P	P	P	P	P	P
6	1602900082	Riyanshu Pal	IV	P	P	P	P	P	P
7	1602900024	Arpit Poonia	IV	P	P	P	P	P	P
8	1602900038	Dushyant Kumar Mathur	IV	P	A	P	P	P	P
9	1602900041	Hardik Bansal	IV	P	P	P	P	P	P
10	1602900045	Himanshu Sharma	IV	P	P	P	P	P	P
11	1602900043	Harsh Vardhan Gupta	IV	A	P	P	P	P	P
12	1602900033	Chirag Chaddha	IV	P	P	P	P	A	P
13	1602900109	Uday Pratap Singh	IV	P	P	P	P	P	P
14	1602900040	Gaurav Rajora	IV	A	P	P	P	P	P
15	1502900078	Nitish Kumar	VI	P	P	P	P	P	P
16	1502900066	Mayank Prabhakar	VI	P	P	P	P	P	P
17	1502900061	Kritika Chaudhary	VI	P	P	P	P	P	P
18	1702900905	Aniket Kumar Anand	IV	P	P	P	P	P	P
19	1502900106	Shashank Chandra	VI	P	P	P	P	P	P
20	1602900080	Ritika Verma	IV	P	A	P	P	P	P
21	1502900084	Prasoon Awasthi	VI	P	P	P	P	P	P
22	1502900113	Vaibhav Chaudhary	VI	P	P	P	P	P	P
23	1602900066	Payal	IV	P	P	P	P	P	P

Singh
HOD, CE

KIET Group of Institutions, Ghaziabad

Department of Civil Engineering

Summary Report of Summer School

Name of the program: Water and Sanitation Planning & Design for a Mini town ship-A case Study

Duration: 02 July to 07 July 2018

Curriculum: (i) Water Demand

- (ii) Population Forecasting
- (iii) Water Characteristic (Quality Testing)
- (iv) Flow Sheet Design
- (v) Design of Preliminary and Primary Units
- (vi) Secondary Unit Design
- (vii) Sludge Digestion unit Design
- (viii) Water disposal for Irrigation

Assessment procedures: Viva-Voice and Impact Analysis

Outcome: By attending the above summer school students were able to understand the practical approach of Designing W.T.P. and S.T.P. . The summer school has taken the case study of Asalat Nagar Village, Muradnagar, Ghaziabad. The Study area is located in rural area with lot of problems of water logging and they are using Well water as main source of water at that time, with very few houses with Piped supply. Designing the treatment unit for such area is always a problem due to staggered houses. The students understand the practical problems which they

have to face while solving the problems of rural area.

Count of 2. The course coordinators responded to questions clearly and effectively.



2. The course coordinators responded to questions clearly and effectively.

Count of 1. The course coordinators explained content in easy manner to understand.



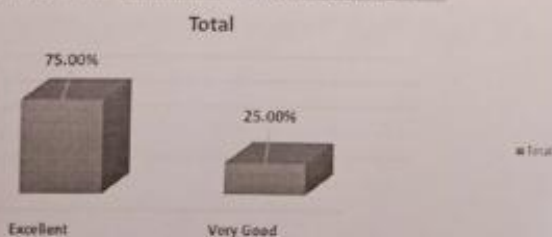
1. The course coordinators explained content in easy manner to understand.

Count of 3. The course content was arranged and presented in a learning sequence which included theory and practical sessions.



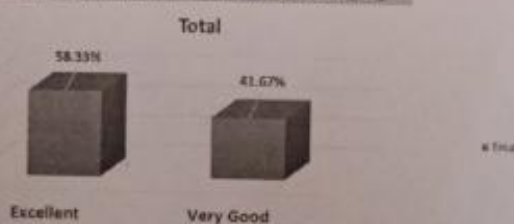
3. The course content was arranged and presented in a learning sequence which included theory and practical sessions.

Count of 4. This course helped me to understand about the importance of topic and its relevance to societal needs.



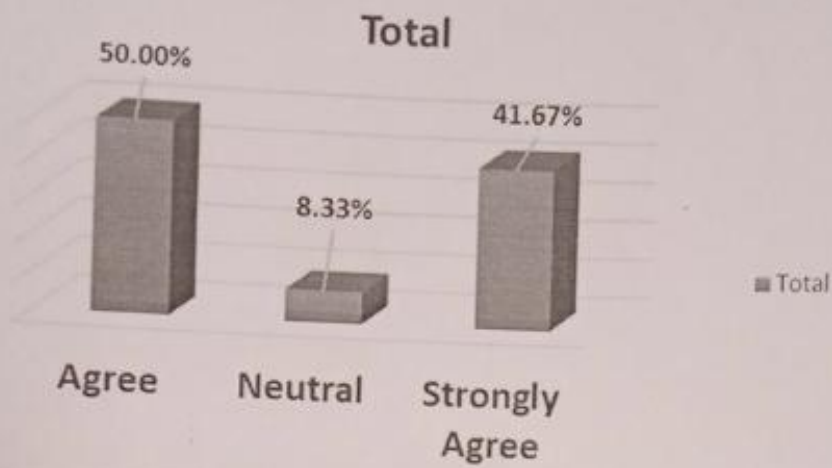
4. This course helped me to understand about the importance of topic and its relevance to societal needs.

Count of 5. Overall satisfaction level from the course (Course content and delivery, facilities, and development).



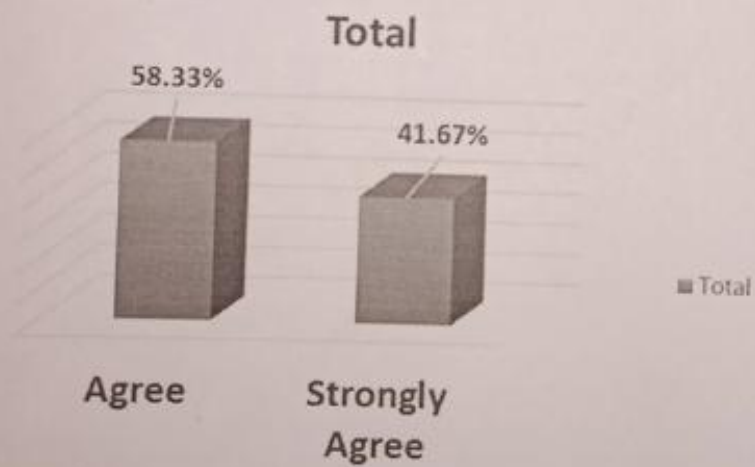
5. Overall satisfaction level from the course (Course content and delivery, facilities, and development).

Count of This course gave me exposure to modern engineering and IT-tools



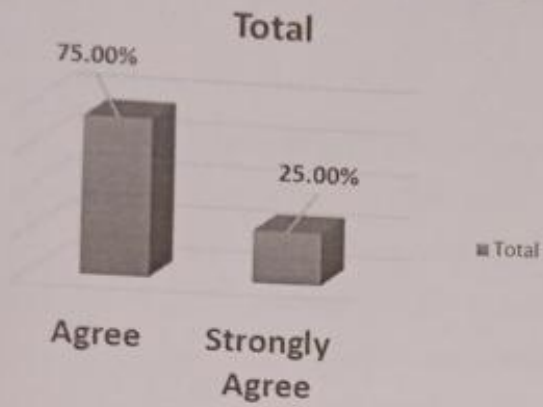
This course gave me exposure to modern engineering and IT-tools ▾

Count of The teaching-learning process encouraged me to participate



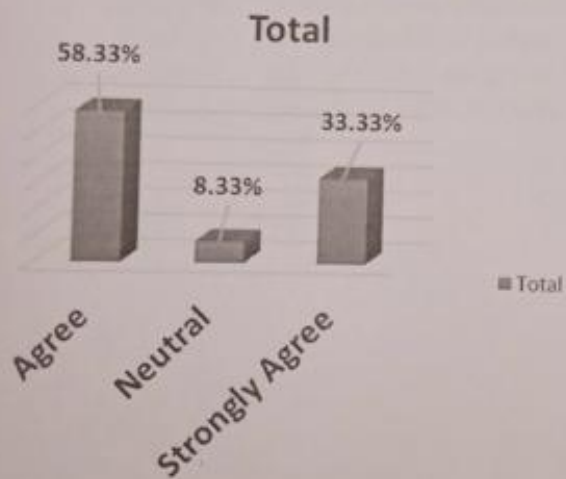
The teaching-learning process encouraged me to participate ▾

Count of The decision to enroll in the course was justified



The decision to enroll in the course was justified ▾

Count of I would recommend this course to other students



I would recommend this course to other students ▾

Pr Singh
HOD, CE

DEPARTMENT OF CIVIL ENGINEERING, KIET GHAZIABAD

Summer School 2017-18

(3) Water and Sanitation Planning & Design for a Mini town ship-A case Study

Attendance Sheet

Fee : Rs. 300/-

S.No.	Roll No	Name	Sem	2/7/2018	3/7/2018	4/7/2018	5/7/2018	6/7/2018	7/7/2018
1	1602900015	Ankur Vaiyagra	IV	P	P	P	P	P	P
2	1502900049	Gaurav Kumar Pathak	VI	P	P	P	P	P	P
3	1502900099	Sandeep Verma	VI	P	P	P	P	P	P
4	1602900090	Saurabh Saxena	IV	P	P	P	P	P	P
5	1602900085	Sachin Singh	IV	P	P	P	P	P	P
6	1602900082	Riyanshu Pal	IV	P	P	P	P	P	P
7	1602900024	Arpit Poonia	IV	P	P	P	P	P	P
8	1602900038	Dushyant Kumar Mathur	IV	P	P	P	P	P	P
9	1602900041	Hardik Bansal	IV	P	P	P	P	P	P
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17	1502900061	Kritika Chaudhary	VI	P	P	P	P	P	P
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19	1502900106	Shashank Chandra	VI	P	P	P	P	P	P
20	1602900080	Ritika Verma	IV	P	P	P	P	P	P
21	1502900084	Prasoon Awasthi	VI	P	P	P	P	P	P
22	1502900113	Vaibhav Chaudhary	VI	P	P	P	P	P	P
23	1602900066	Payal	IV	P	P	P	P	P	P
24	1602900035	Deepak Kumar	IV	P	P	P	P	P	P

[Signature]
HOD, CE

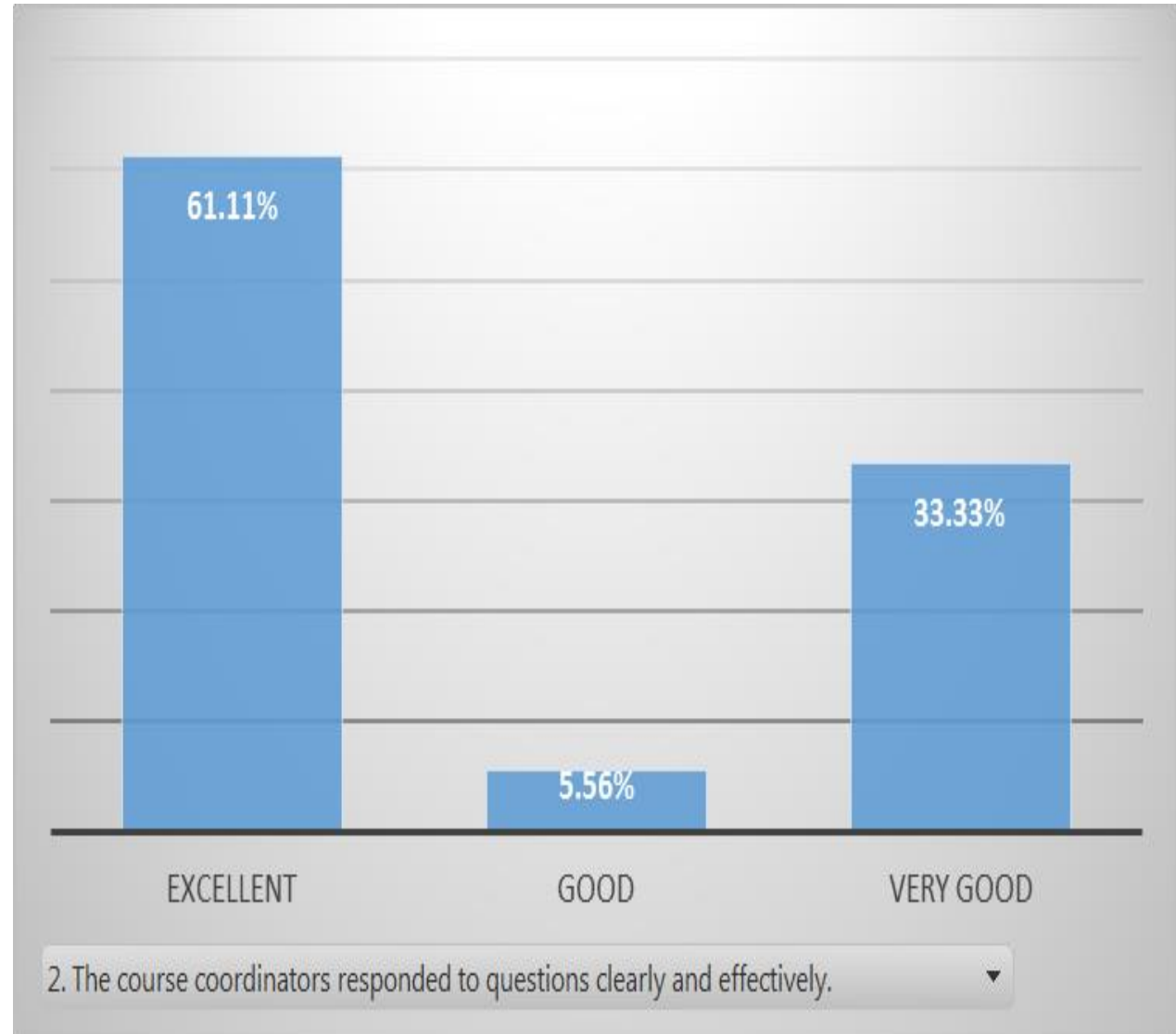


FEEDBACK OF SUMMER SCHOOL FROM PARTICIPANTS

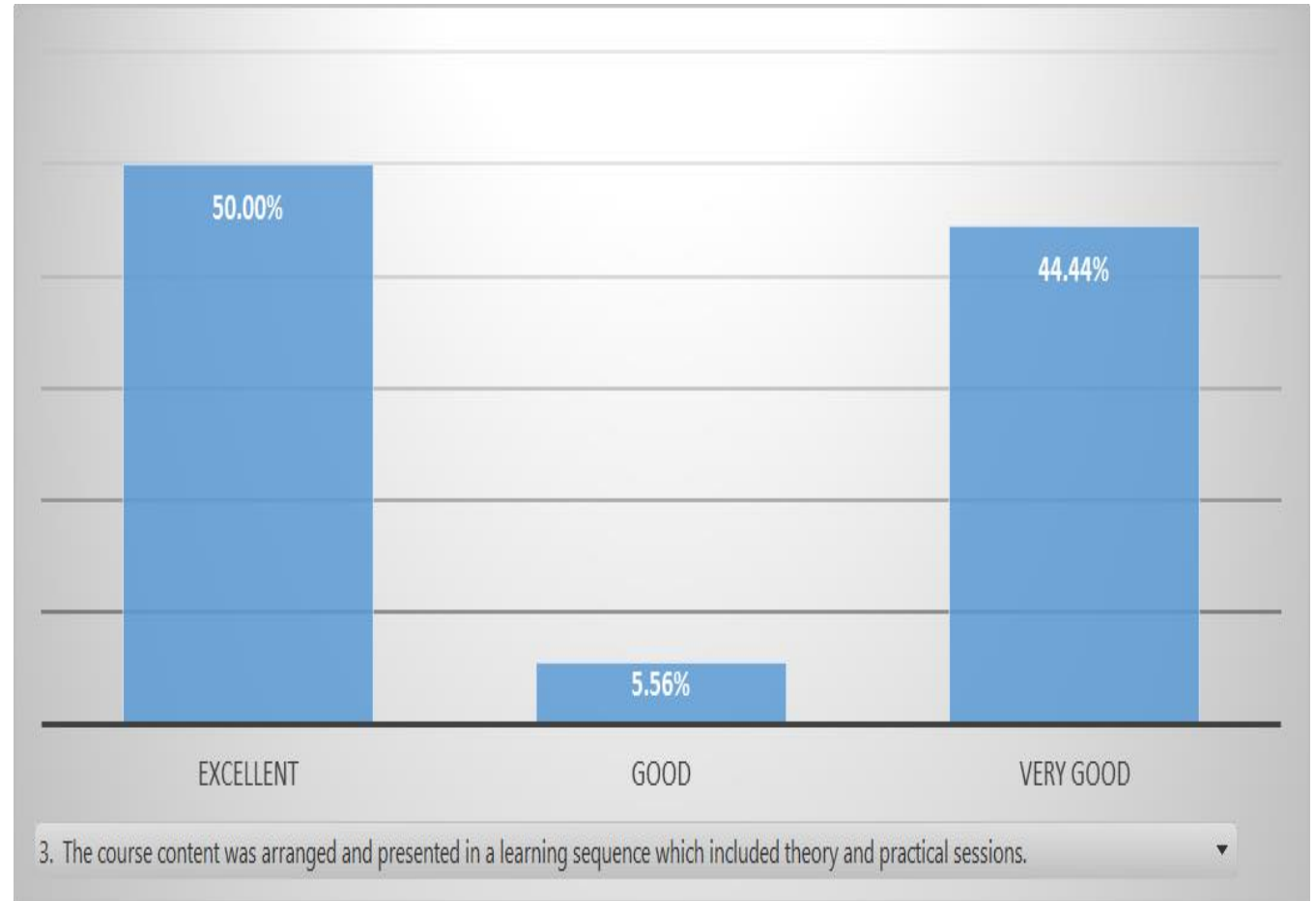
1. THE COURSE COORDINATORS EXPLAINED CONTENT IN EASY MANNER TO UNDERSTAND.



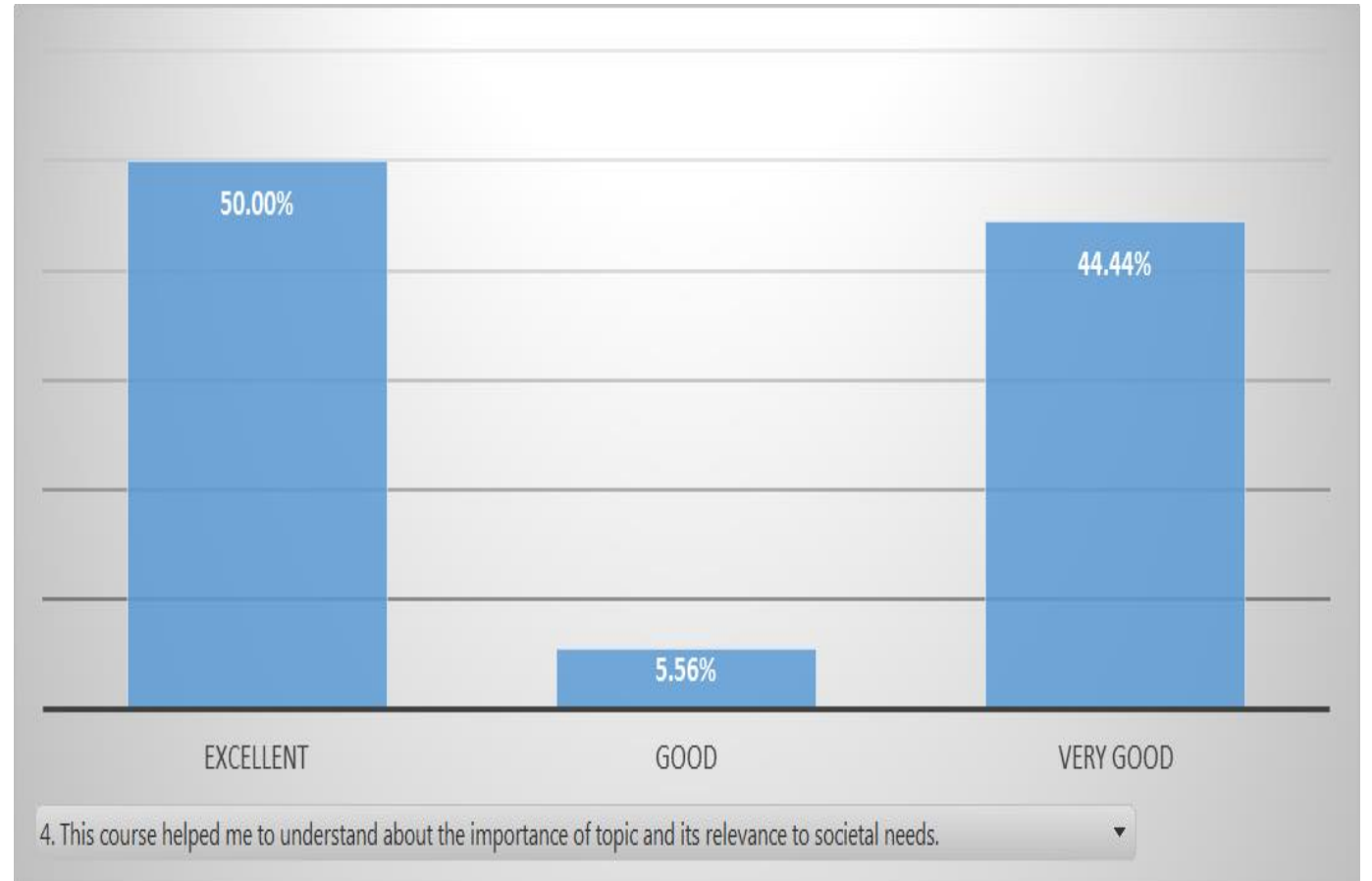
2. THE COURSE COORDINATORS RESPONDED TO QUESTIONS CLEARLY AND EFFECTIVELY.



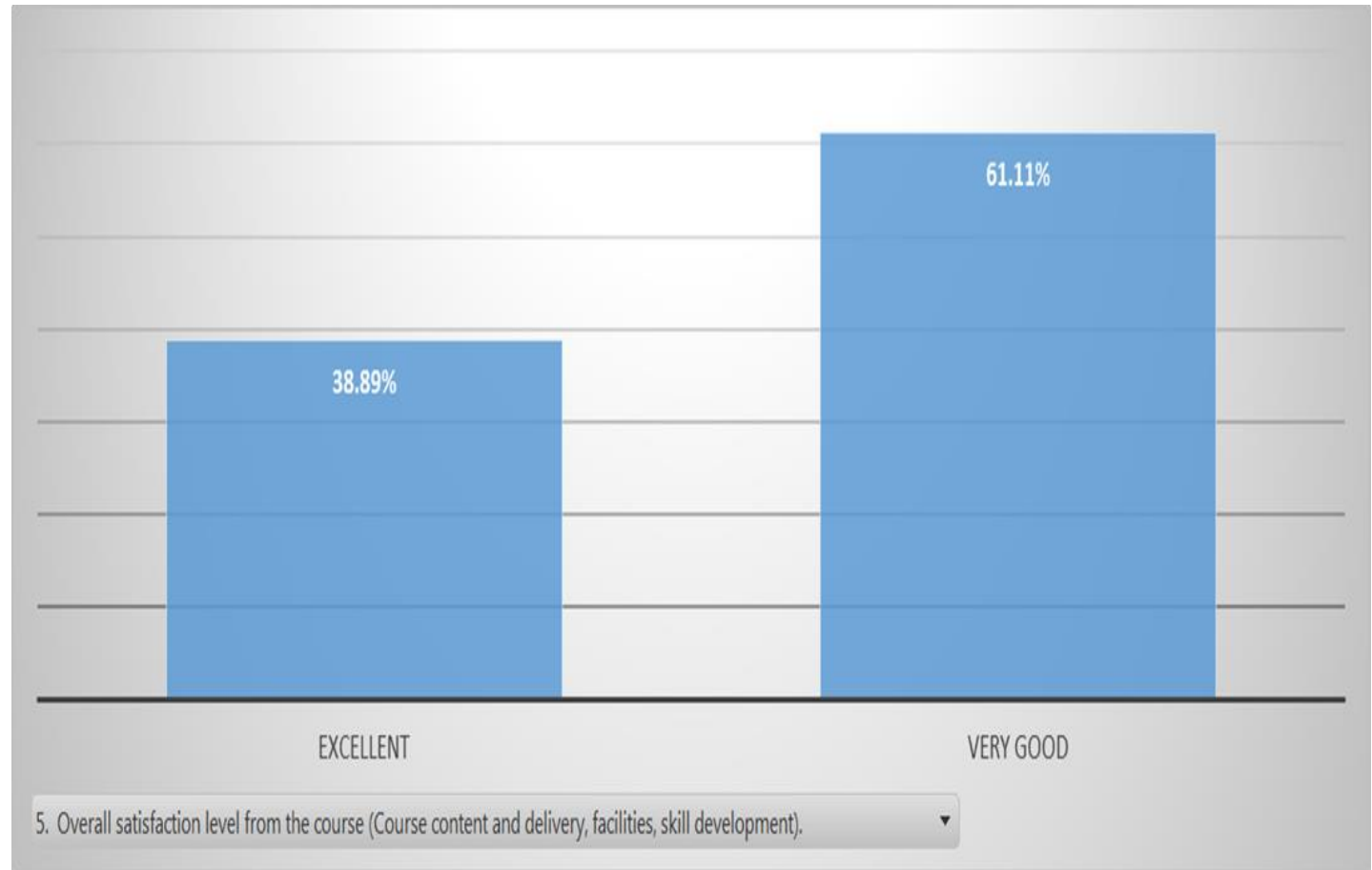
3. THE COURSE CONTENT WAS ARRANGED AND PRESENTED IN A LEARNING SEQUENCE WHICH INCLUDED THEORY AND PRACTICAL SESSIONS.



**4. THIS COURSE HELPED
ME TO UNDERSTAND
ABOUT THE IMPORTANCE
OF TOPIC AND ITS
RELEVANCE TO SOCIETAL
NEEDS.**

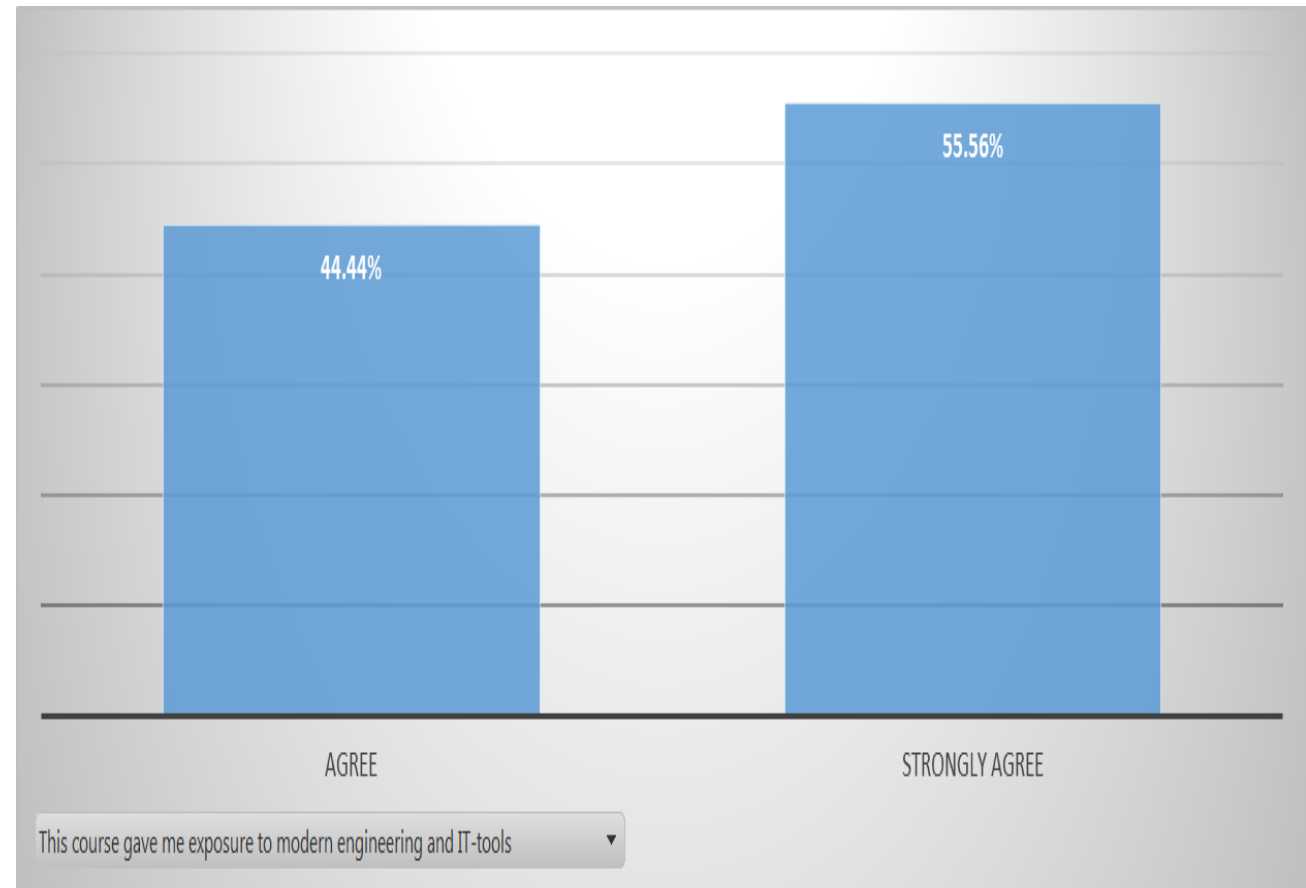


5. OVERALL SATISFACTION LEVEL FROM THE COURSE (COURSE CONTENT AND DELIVERY, FACILITIES, SKILL DEVELOPMENT).

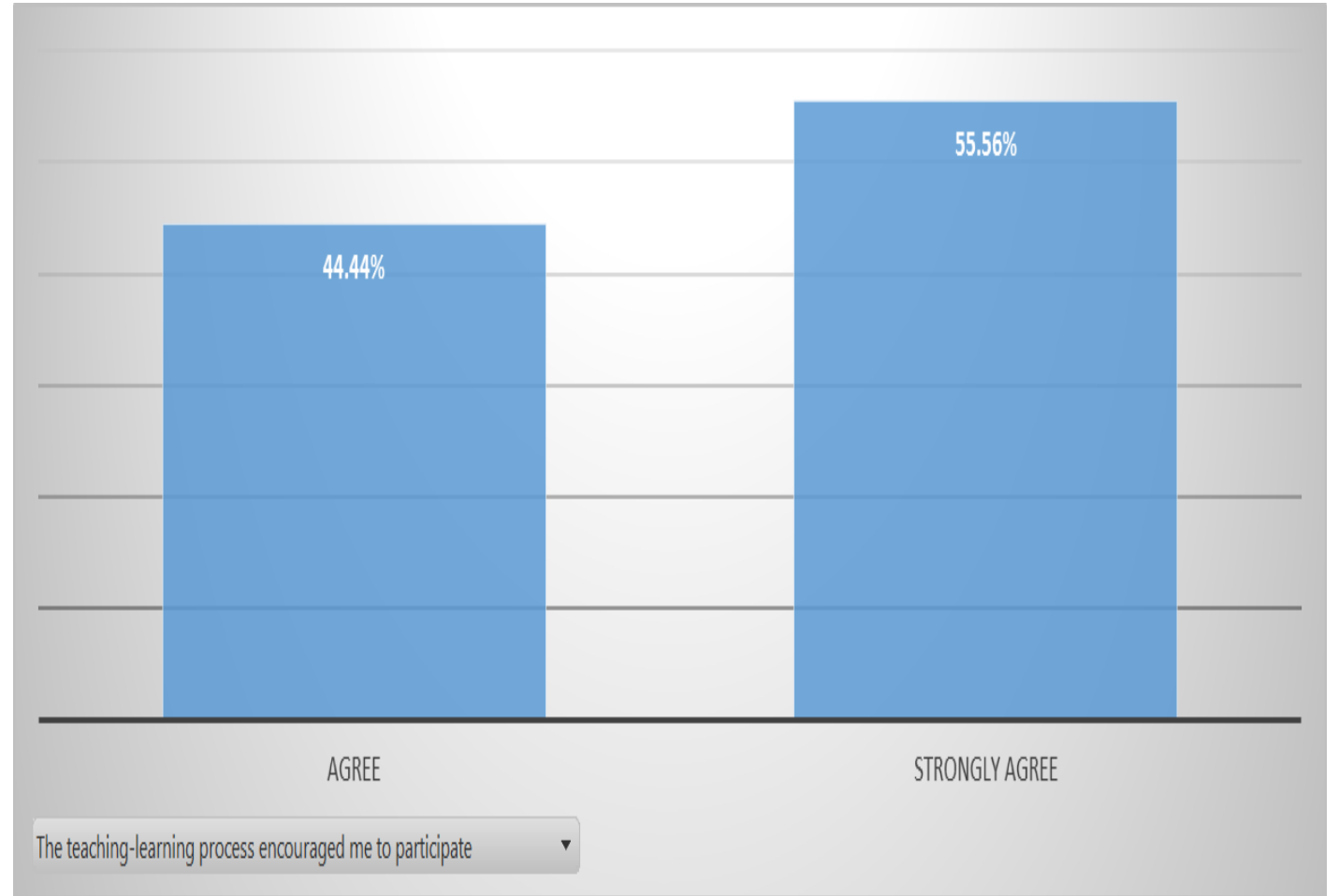


OVERALL EVALUATION OF THE SUMMER SCHOOL COURSE BY PARTICIPANTS

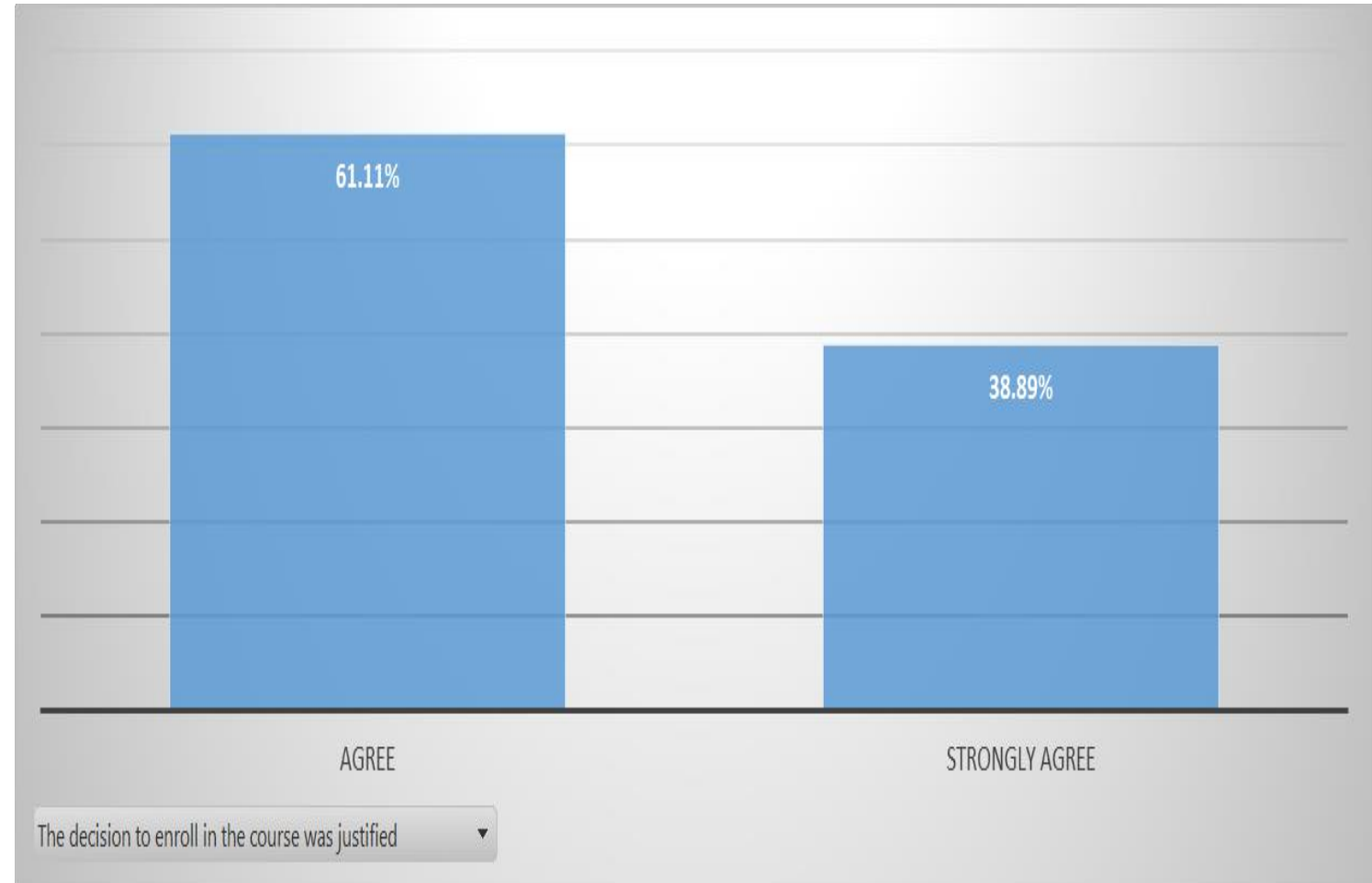
THIS COURSE GAVE ME
EXPOSURE TO MODERN
ENGINEERING AND IT-
TOOLS



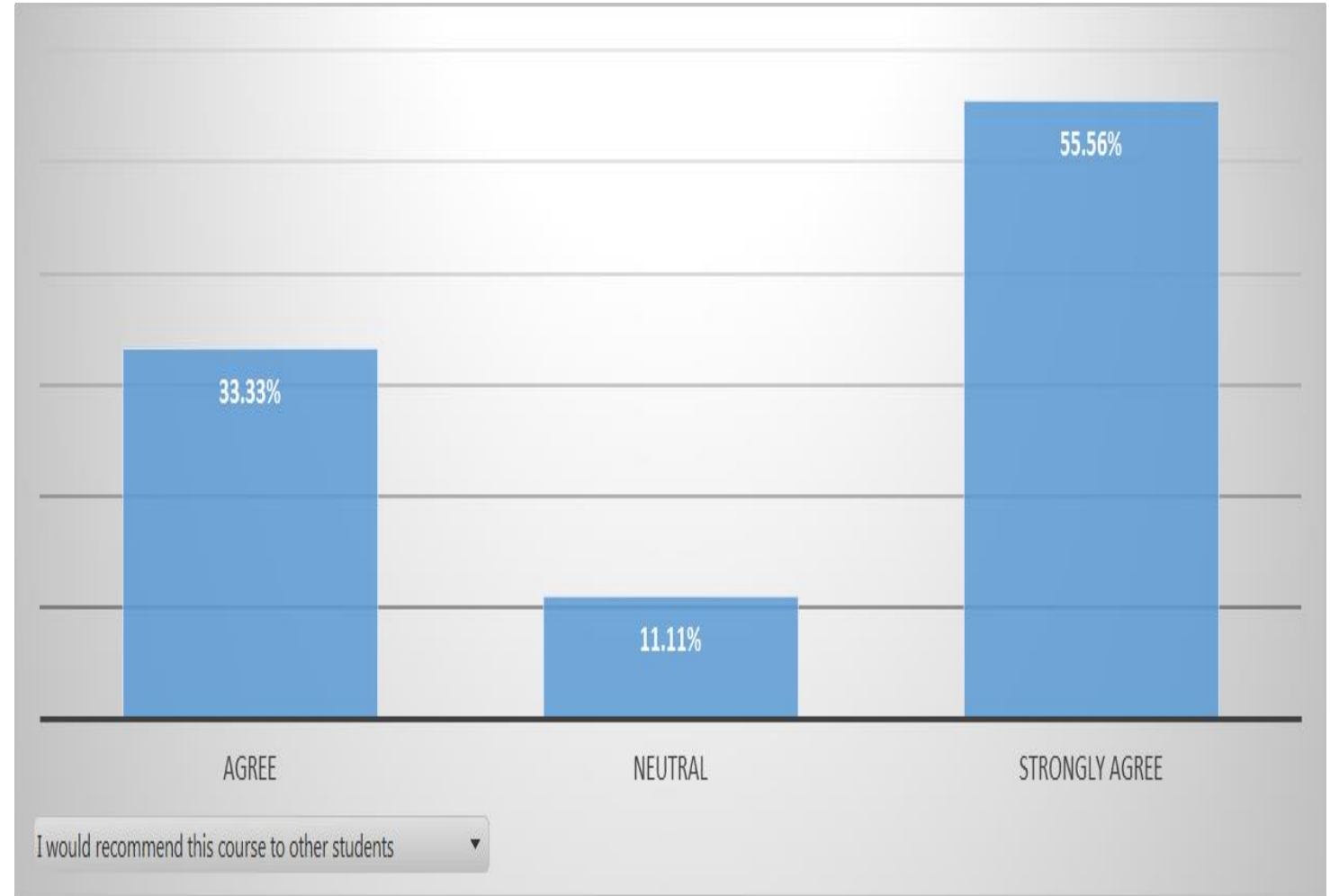
THE TEACHING-LEARNING PROCESS ENCOURAGED ME TO PARTICIPATE

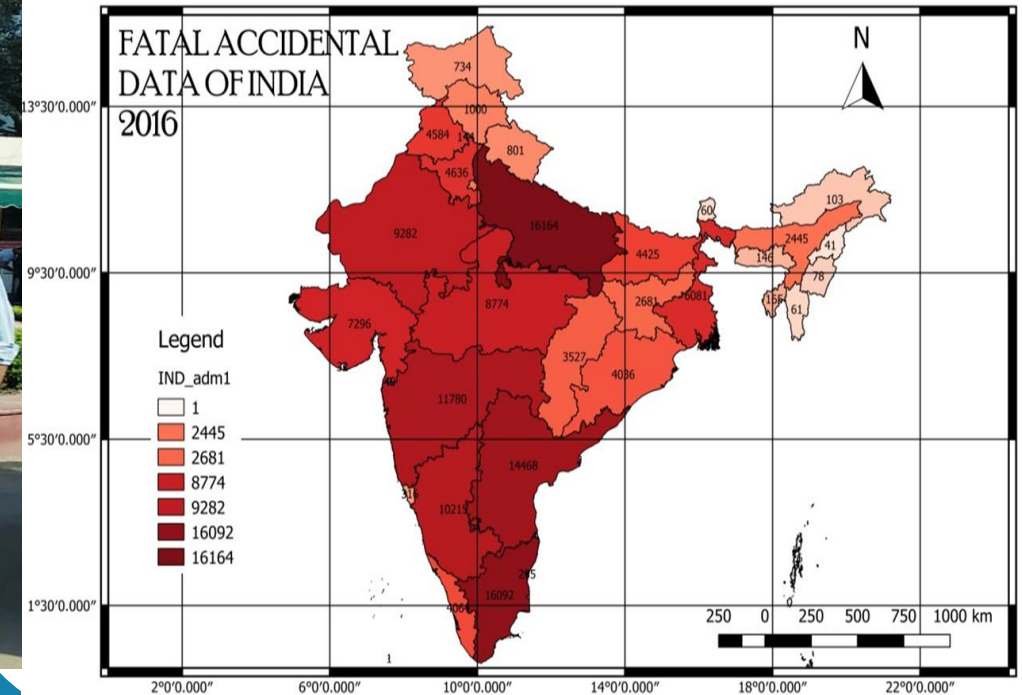


THE DECISION TO ENROLL IN THE COURSE WAS JUSTIFIED



**I WOULD RECOMMEND
THIS COURSE TO OTHER
STUDENTS**





HIGHLIGHTS OF SUMMER SCHOOL **ON** **IDENTIFICATION OF ACCIDENT** **PRONE SPOTS USING GIS** **(JUNE 18TH - JUNE 23RD, 2018)**

COURSE CO-ORDINATORS

- 1. DR. ATUL KANT PIYOOSH***
- 2. MR. ANURAG THOMBRE***



**DAY 1: ROAD ACCIDENT PROBLEM,
STRATEGIES FOR ROAD SAFETY, ACCIDENT
RECORDING FORM, ROAD SAFETY AUDIT
PROCESS AND FIELD EXERCISE**

**RESOURCE PERSONNEL
MR. ANURAG THOMBRE**

In India a **death** occurs every 3.5 minutes due to **road accidents***



03:25

Impact of road accidents as on today based on last year's data

Accidents:

220297

Total Injured:

222973

Total Deaths:

66891

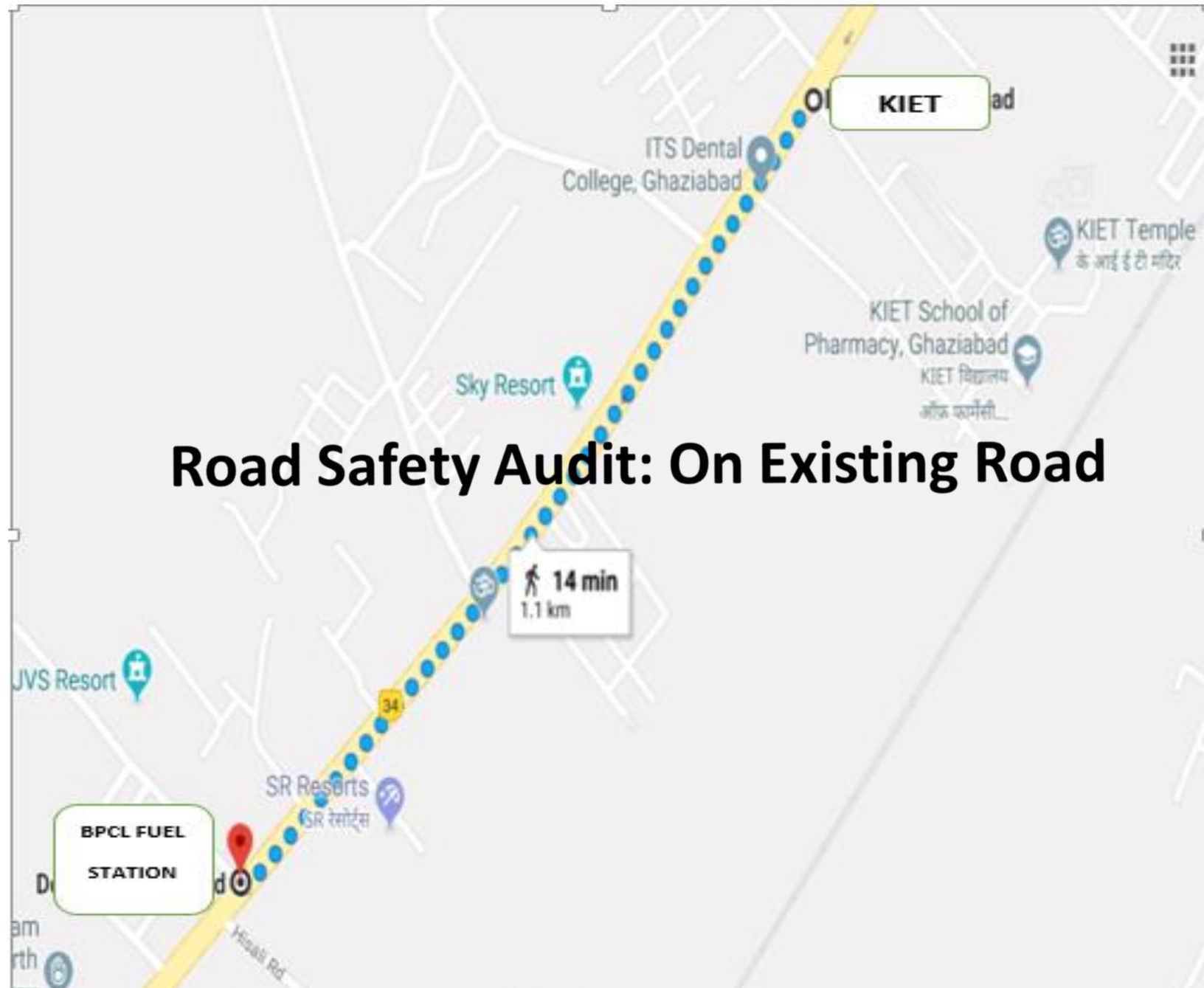
IRC:SP:88-2010



**MANUAL
ON
ROAD SAFETY AUDIT**







**INDIAN ROADS CONGRESS
2010**



Road Safety Audit: On Existing Road





Observation	Recommendation	Snaps
<p>Carriageway broken and pavement surface in distress.</p>	<p>Carriage must be repaired and maintained as per IRC:82-2015 guidelines.</p>	
<p>Edges of carriageway not proper and may lead to accidents.</p>	<p>Reconstruction or maintenance of edges.</p>	



Observation	Recommendation	Snaps
<p>Shoulders are not of proper size and broken and inappropriate for vehicles.</p>	<p>Shoulders need to be maintained and proper geometry should be maintained throughout as per IRC:86-1983</p>	
<p>Medians are not of appropriate standards and U-turn signs not installed.</p>	<p>Medians need to be widened and raised as per IRC:86-1983 and crash barriers need to be installed.</p>	



Observation	Recommendation	Snaps
<p>Uneven median height observed. Minimum criteria not maintained.</p>	<p>Medians need to be reconstructed uniformly over the whole stretch.</p>	
<p>Unexpected slopes observed near the shoulder.</p>	<p>Cross-slope needs to be provided properly to avoid accidents.</p>	 <p>2018-6-18 15:49</p>



Observation	Recommendation	Snaps
Tree found obstructing sight distance.	Part of the tree coming on the road should be cut to ensure minimum stopping sight distance.	
Highway kilometre stone found away from road.	Highway kilometre stone must be made close to road for driver's convenience as per IRC:8-1980	

Observation	Recommendation	Snaps
<p>Trees found on the shoulder , dangerous for vehicles.</p>	<p>Trees on the shoulders must be removed or else retro-reflectives must be pasted on them</p>	
<p>Traffic light found damaged.</p>	<p>Lights should be replaced or maintained for safety purpose.</p>	

Observation	Recommendation	Snaps
<p>Informatory sign damaged. Not as per IRC:67-2012</p>	<p>Need to be maintained or replaced</p>	
<p>No Informatory sign board installed for petrol pump. Access roads also accident prone.</p>	<p>Informatory signs are important and need to be installed.</p>	



Observation	Recommendation	Snaps
<p>Contraflow Vehicles movement observed which is highly dangerous on highways</p>	<p>Traffic law enforcement (traffic police) need to be strictly adhered to.</p>	 <p>A photograph showing a yellow bus and a large red truck moving in opposite directions on a highway. The vehicles are circled in red. A person is visible in the foreground, and a timestamp '2018-6-18 14:41' is visible in the bottom right corner.</p>
<p>Frequent Median opening affects traffic flow leading to queuing delays</p>	<p>Median openings must be curtailed and provided as per IRC:62-1976</p>	 <p>A photograph showing a white SUV crossing a median opening on a highway. The vehicle is circled in red.</p>



Observation	Recommendation	Snaps
<p>Pedestrian interference(jay walking) is observed.</p>	<p>Pedestrian facilities needs to be provided as per IRC:103-2012, also pedestrian refuge is needed.</p>	
<p>Zebra crossing faded.</p>	<p>Need to be re drawn as soon as possible.</p>	



Observation	Recommendation	Snap
Electric poles observed very close to road.	Poles must be shifted away from the road.	
Advertisement boards observed close to the road.	Advertisement boards must be shifted away for safety and maintained as per IRC:46	

Observation	Recommendation	Snaps
<p>Temporary shops observed on right of way (ROW)</p>	<p>Encroachments Need to be removed as soon as possible.</p>	
<p>Cattle related activities found near the road.</p>	<p>People must be stopped to use shoulder area and such activities need to be stopped.</p>	

Observation	Recommendation	Snaps
<p>Traffic light near the college not working as well as no informatory sign.</p>	<p>Informatory sign must be installed and traffic light must be maintained.</p>	
<p>Advertisement board poles found near the road , very dangerous during night.</p>	<p>Poles need to be removed immediately.</p>	

Observation	Recommendation	Snaps
<p>Break in medians found at many places.</p>	<p>Medians openings must be closed as soon as possible to avoid accidents.</p>	
<p>Vehicles parked at shoulders at many places.</p>	<p>Proper parking areas must be provided and parking at shoulder must be banned.</p>	

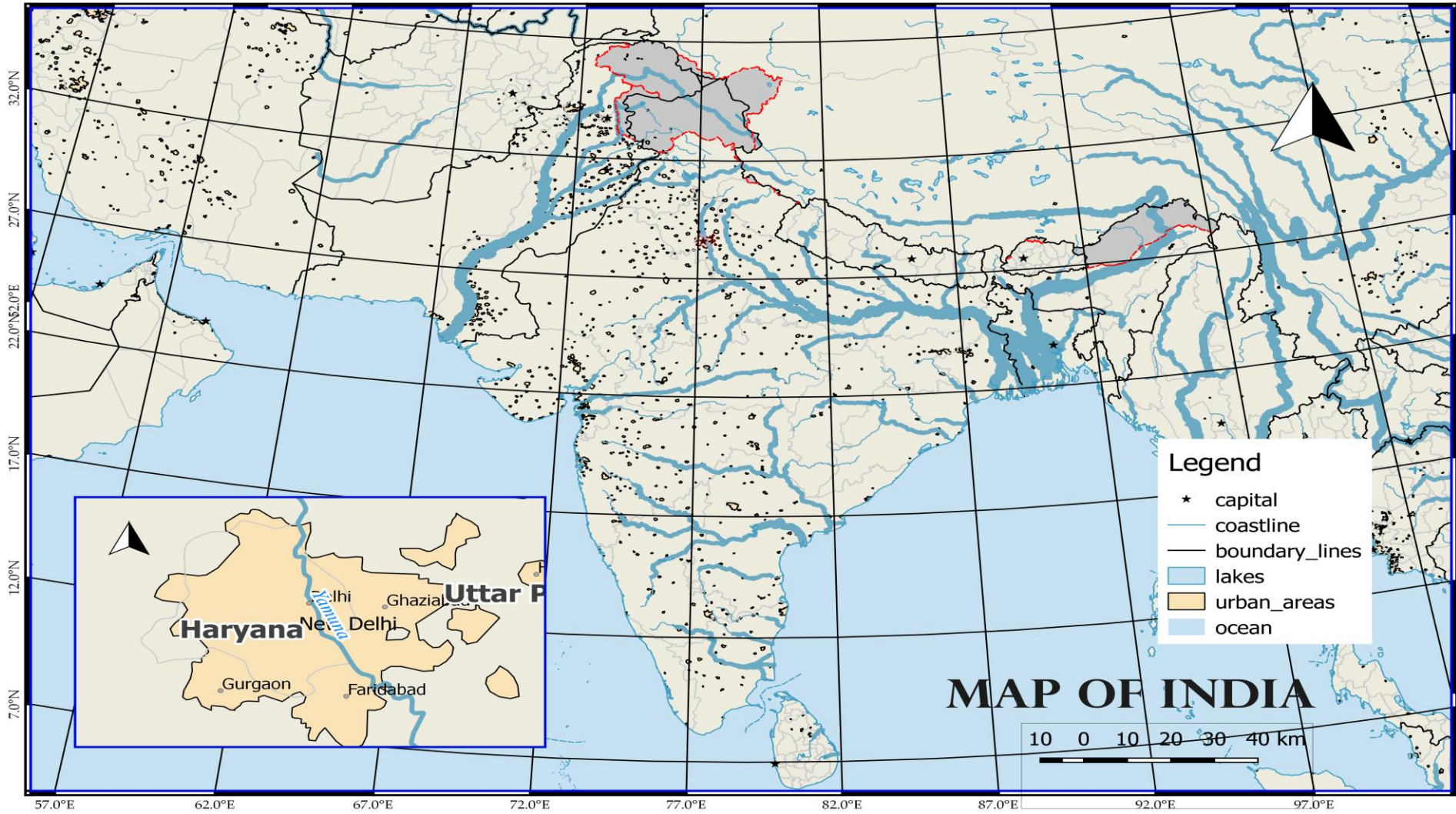
Observation	Recommendation	Snaps
<p>No bus stops and bus lay</p>	<p>Bus stops are very necessary to avoid traffic delays.</p>	
<p>Gas pipelines installed very close to the road.</p>	<p>The pipelines need to be shifted a bit further away.</p>	

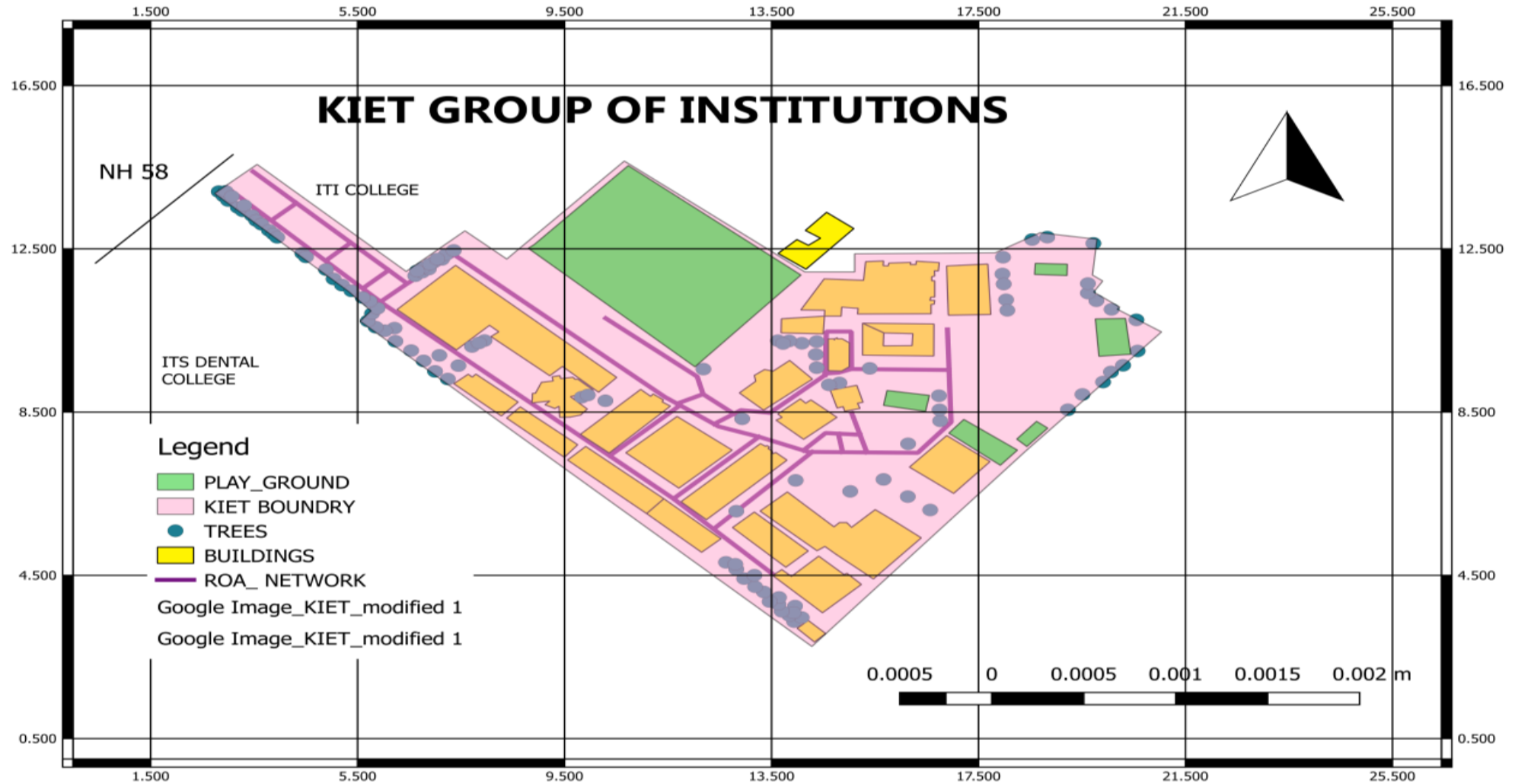
Observation	Recommendation	Snaps
<p>The Median Indicators are damaged.</p>	<p>Indicators need to be maintained as soon as possible.</p>	
<p>No speed limit and other warning signs throughout the stretch.</p>	<p>The warning signs must be installed for complete safety of transportation system.</p>	

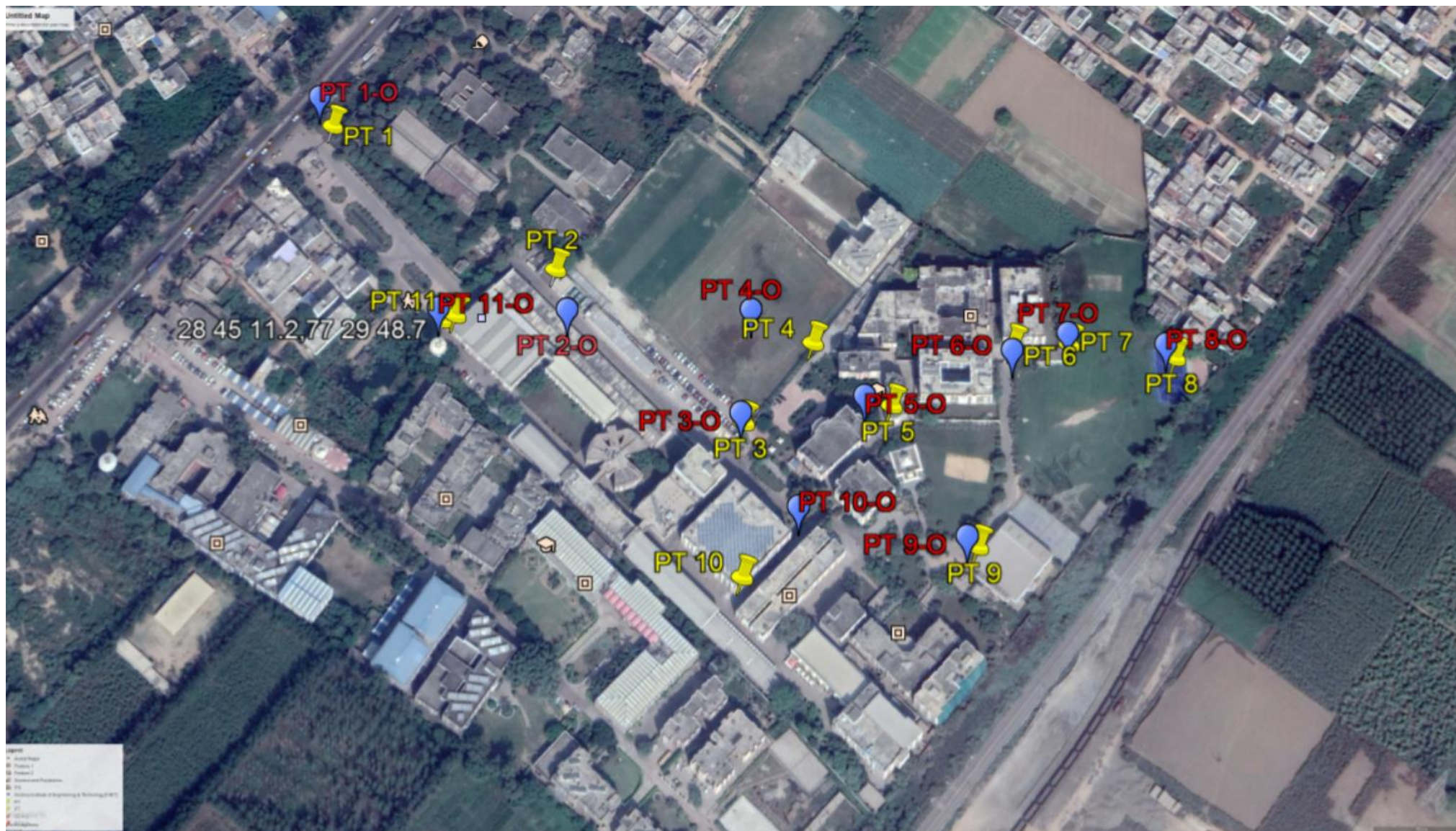


DAY 2: INTRODUCTION TO GIS, DIGITIZATION, GEO-REFERENCING, CREATING A MAP

**RESOURCE PERSONNEL
DR. ATUL KANT PIYOOSH**









DAY 3: BLACK SPOT IDENTIFICATION, INTRODUCTION TO PTV VISUM SAFETY AND ITS CAPABILITIES, GOOGLE EARTH SOFTWARE CAPABILITIES

**RESOURCE PERSONNEL
MR. ANURAG THOMBRE**

ACCIDENT DATA ANALYSIS

Heat map



Find black spots



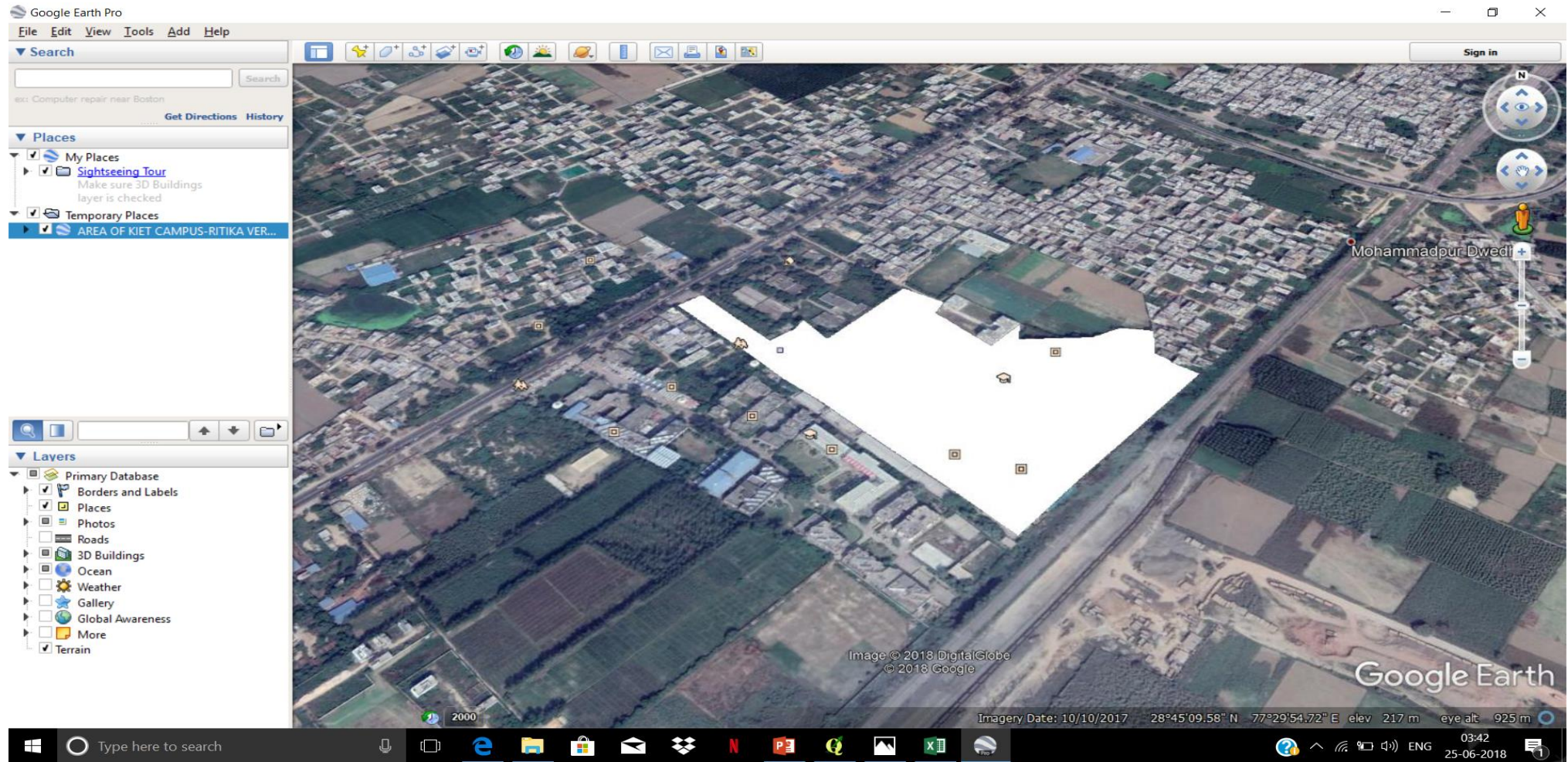
View accident attributes

				9	4	6	2	6	8
④			385	•	•				
⑤			255	•	•				•
⑤			255	•	•		•		•
⑤			255	•	•	•			•
⑤			18	•					•
⑤			18	•					•
①			17.5	•		•		•	
①			17.5	•		•		•	
⑤			18					•	
①			17.5	•				•	

Attribute distribution

Accident types

	Count	
① Driving	289	13%
② Turning-off	441	20%
③ Turning-into / crossing	676	30%
④ Crossing over	250	11%
⑥ Longitudinal traffic	590	26%





DAY 4: REVIEW OF RESEARCH PAPER: TRAFFIC ACCIDENT ANALYSIS OF DEHRADUN USING GIS, HANDS ON PRACTICE ON QGIS

**RESOURCE PERSONNEL
MR. ANURAG THOMBRE &
DR. ATUL KANT PIYOOSH**



TRAFFIC ACCIDENT ANALYSIS FOR DEHRADUN CITY USING GIS

Dr. S.K.Ghosh

Associate Professor of Civil engineering, Indian Institute of Technology Roorkee, Roorkee

Dr. M.Parida

Associate Professor of Civil engineering, Indian Institute of Technology Roorkee, Roorkee

Jay K.Uraon

M.Tech Student, Department of Civil Engineering, Indian Institute of Technology Roorkee, Roorkee.

ABSTRACT

India's share of road accident in the world is an area of serious concern. With advancement in technology, new and sophisticated models of vehicle are available and their numbers are increasing day by day. A traffic accident has multi-facet characteristics associated with it. For proper traffic accident analysis use of GIS technology has become an inevitable tool. The city of Dehradun, the capital of Uttaranchal in northern part of India has been selected for study. Five years of police records reveal that nearly 72% of accidents lead to fatal and grievous injuries. Cars, jeeps and vans are mostly responsible for accidents and that the occurrence of accidents is mostly concentrated between 2PM to 10PM. The study reveals that a proper traffic management is required for the city to check the growth of traffic accidents.

1.0 INTRODUCTION

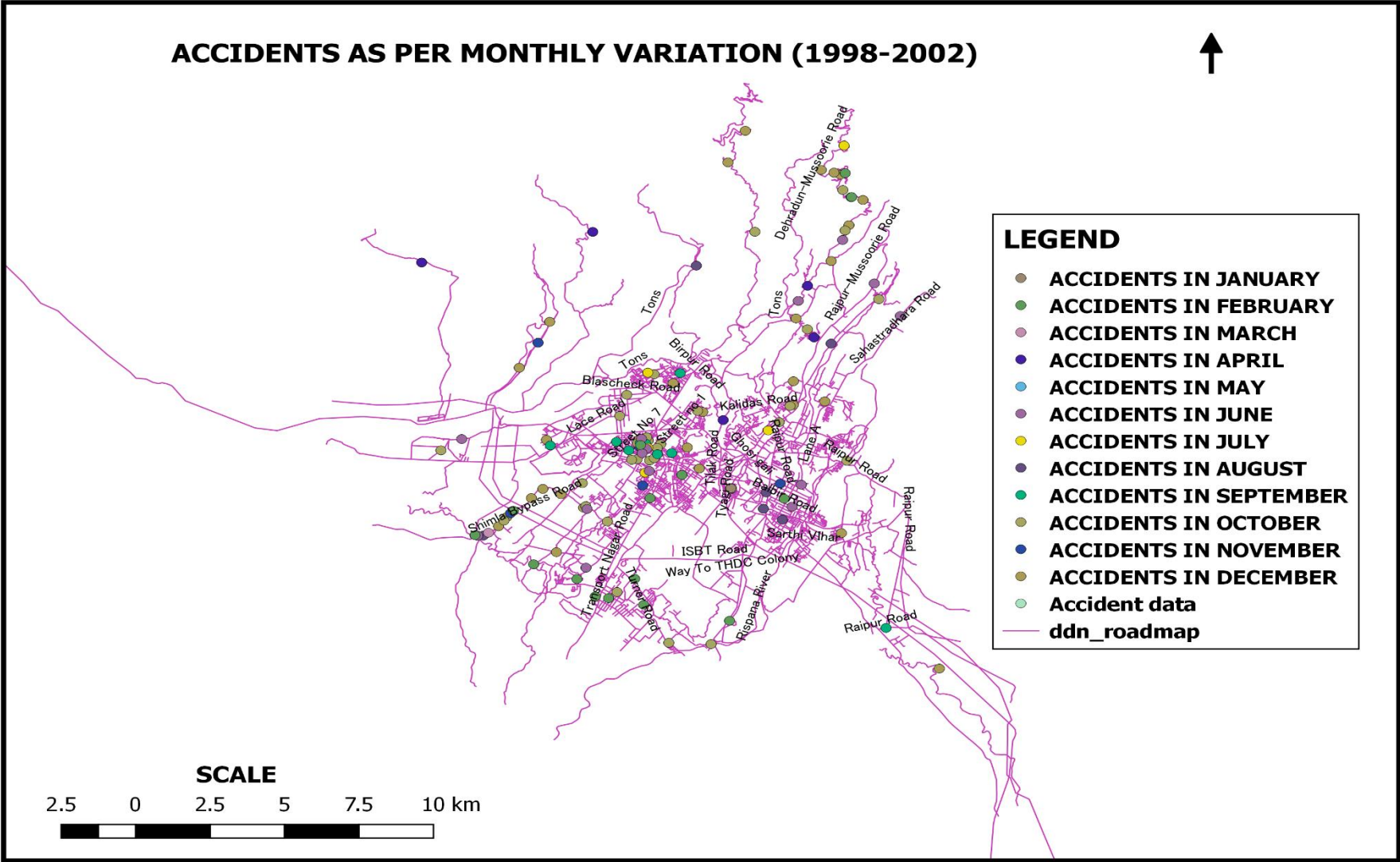
The economic growth of any country depends upon its transportation network, comprising of road, rail and air connectivity. Of these road is the critical one. A good network of road is important as it provides connectivity between rural and urban areas. Alongwith this, road safety is an equally important aspect. It plays a key role towards a sustainable transportation development strategy. The adverse impact of modern road transportation systems is injury and loss of life due to road accidents. While the road accident situation is improving in the high income industrialized countries, most developing countries

of accurate and reliable traffic accident data. However, the data required for such an analysis is not always available. Most of the accident information available in police records is incomplete and therefore, may not be utilized to the fullest extent. In addition, records are also needed to provide facts to guide programs including enforcement, education, maintenance, vehicle inspection, emergency medical services, and engineering to improve streets and highways (Sarin, 2000).

2.0 TRAFFIC ACCIDENTS IN INDIA

In India, every year nearly 85,000 persons are

QGIS OUTPUTS



Legend

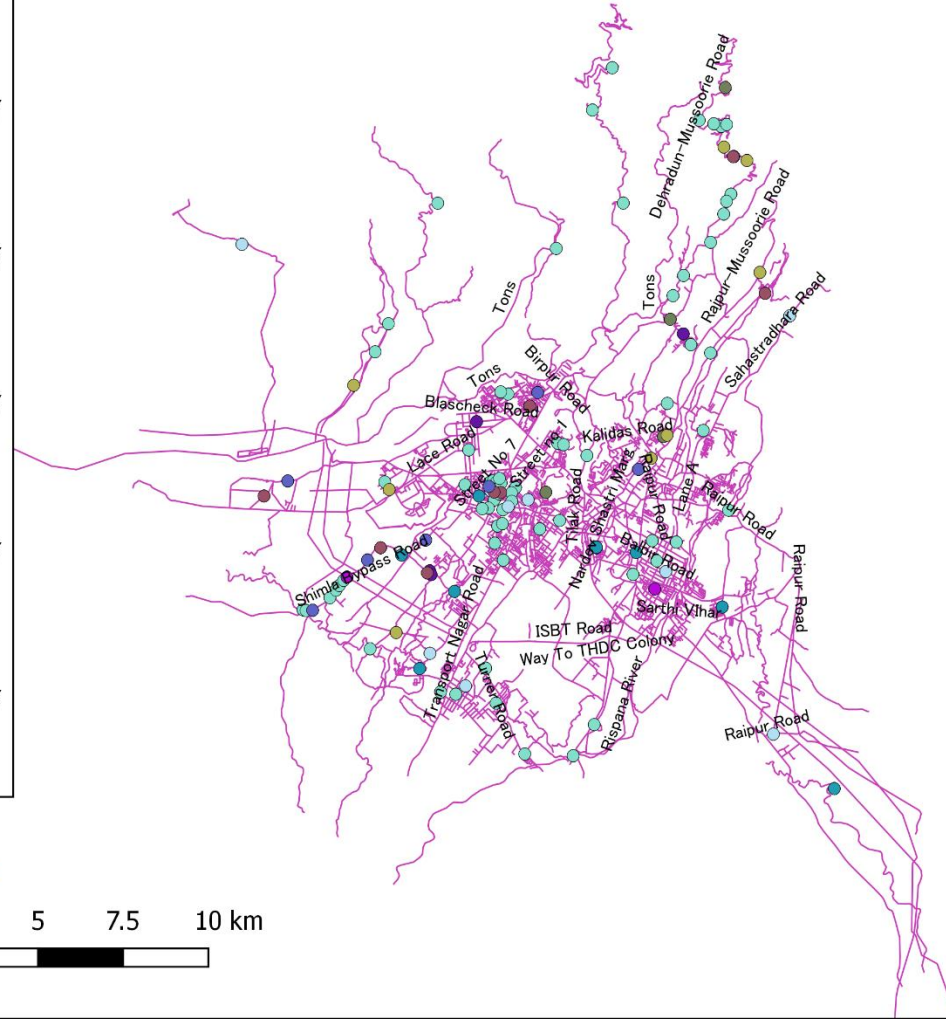
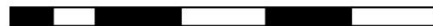
- 1998 FATAL
- 1998 GRIEVOUS
- 1998 MINOR
- 1998 NO INJURY
- 1999 FATAL
- 1999 GRIEVOUS
- 1999 MINOR
- 1999 NO INJURY
- 2000 FATAL
- 2000 GRIEVOUS
- 2000 MINOR
- 2000 NO INJURY
- 2001 FATAL
- 2001 GRIEVOUS
- 2001 MINOR
- 2001 NO INJURY
- 2002 FATAL
- 2002 GRIEVOUS
- 2002 MINOR
- 2002 NO INJURY
- Accident data
- ddn_roadmap

DISTRIBUTION OF TYPE OF ACCIDENTS MODE OF ACCIDENTS IN (1998-2002)

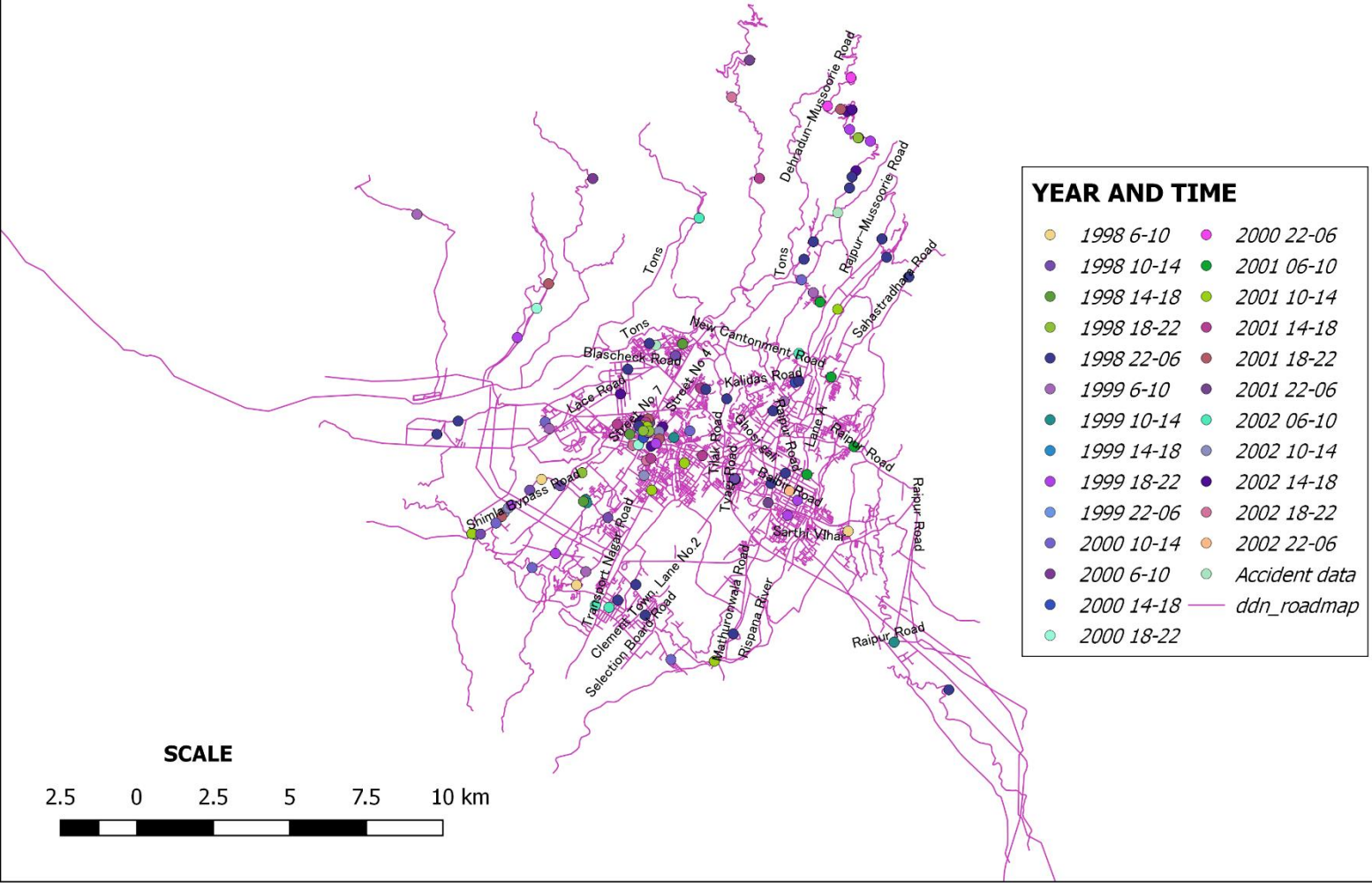


SCALE

2.5 0 2.5 5 7.5 10 km



ROAD ACCIDENTS WRT TIME

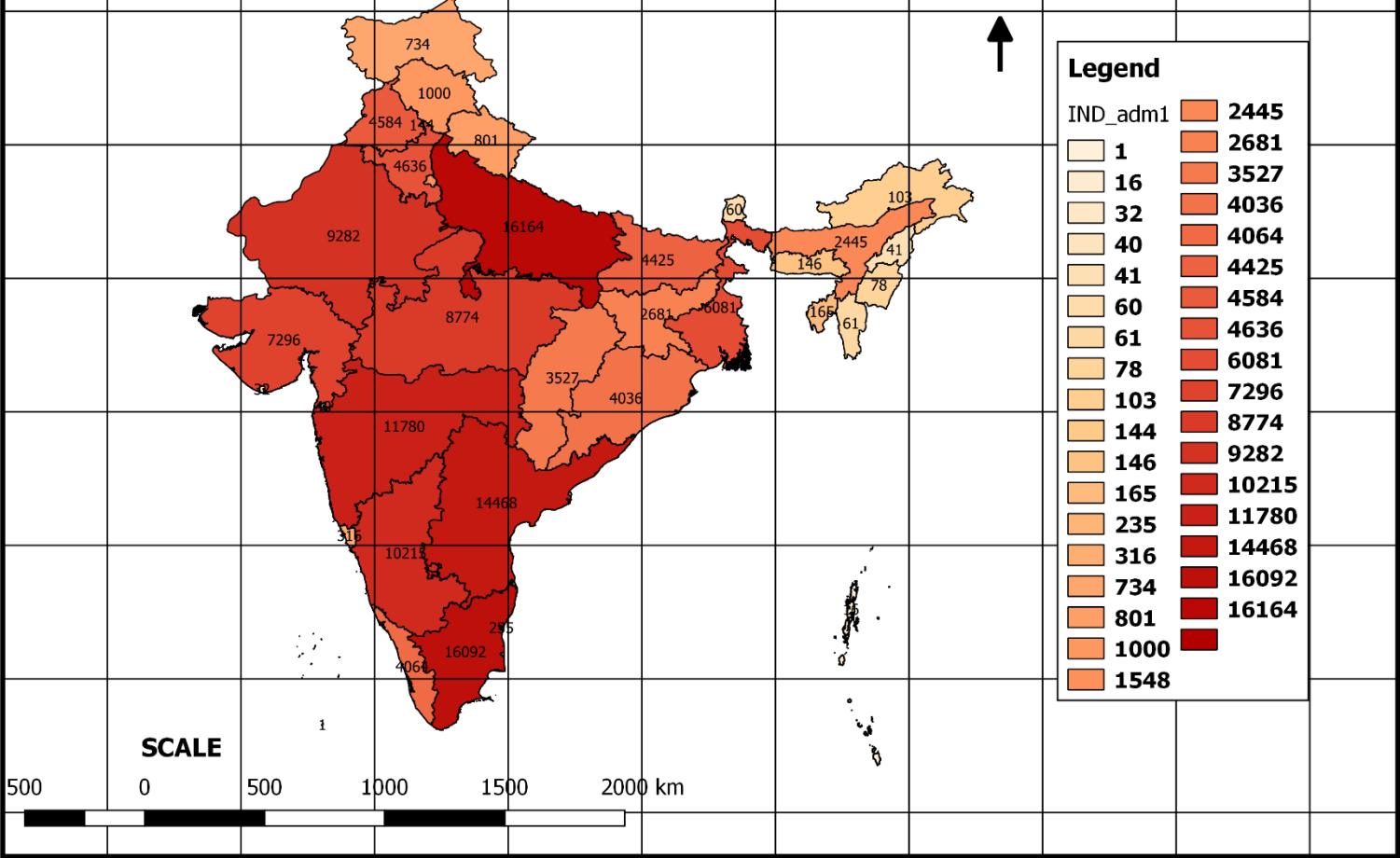




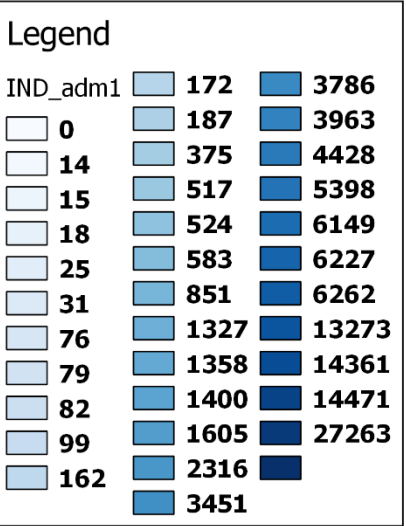
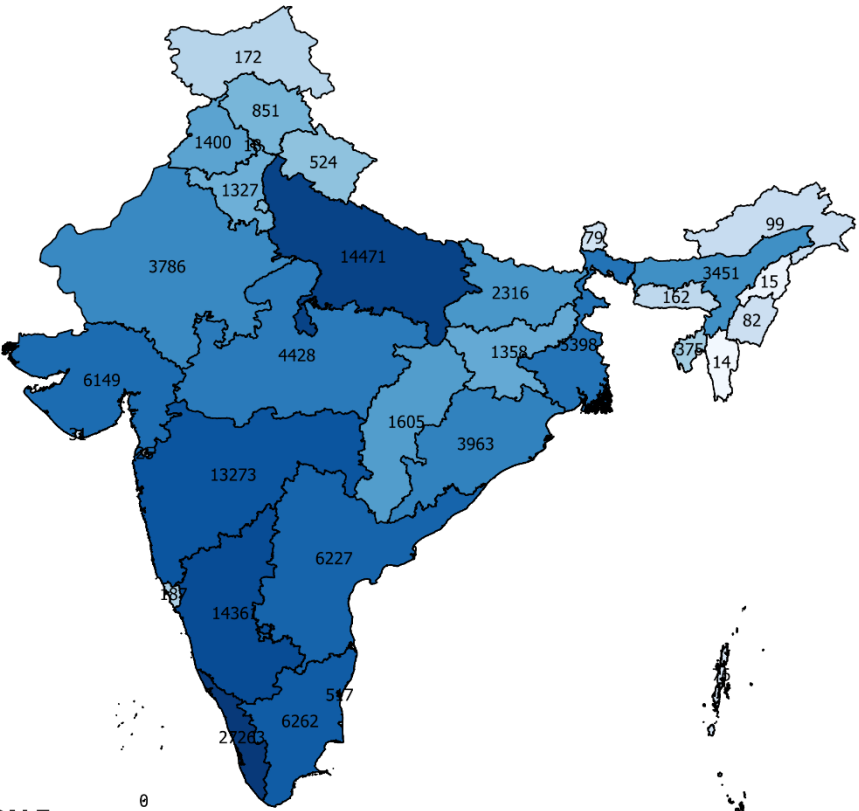
**DAY 5: MORTH ROAD ACCIDENT DATA
MAPPING AND ANALYSIS USING QGIS;
REPORT PREPARATION ON ROAD SAFETY
AUDIT AND SPOT-SPEED ANALYSIS**

**RESOURCE PERSONNEL
DR. ATUL KANT PIYOOSH
& MR. ANURAG THOMBRE**

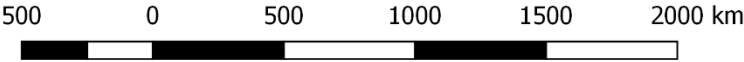
FATAL ACCIDENTS STATE WISE



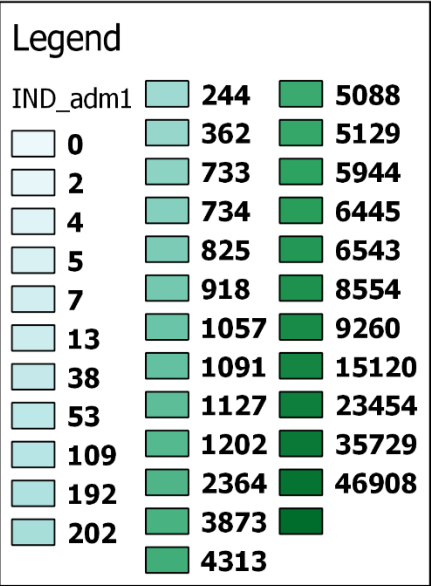
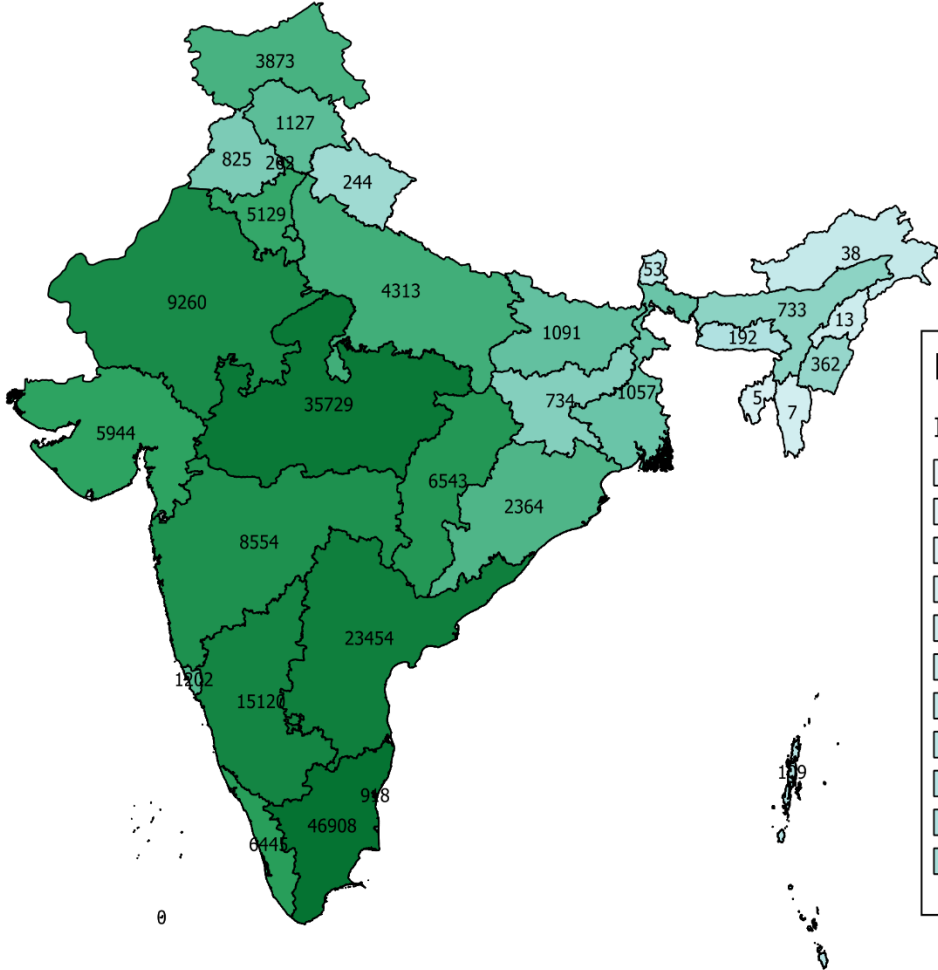
GRIEVOUS ACCIDENTS STATE WISE



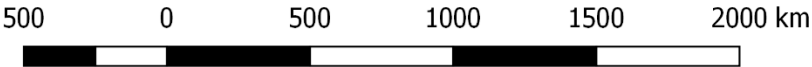
SCALE



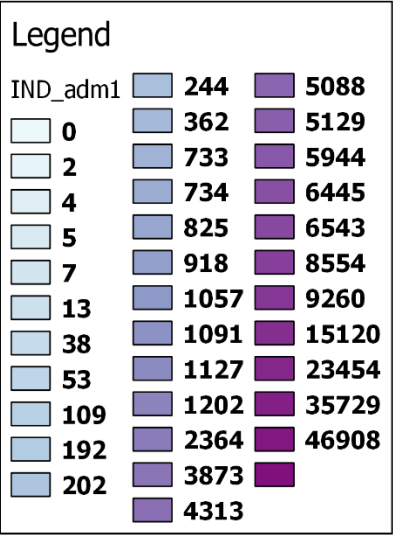
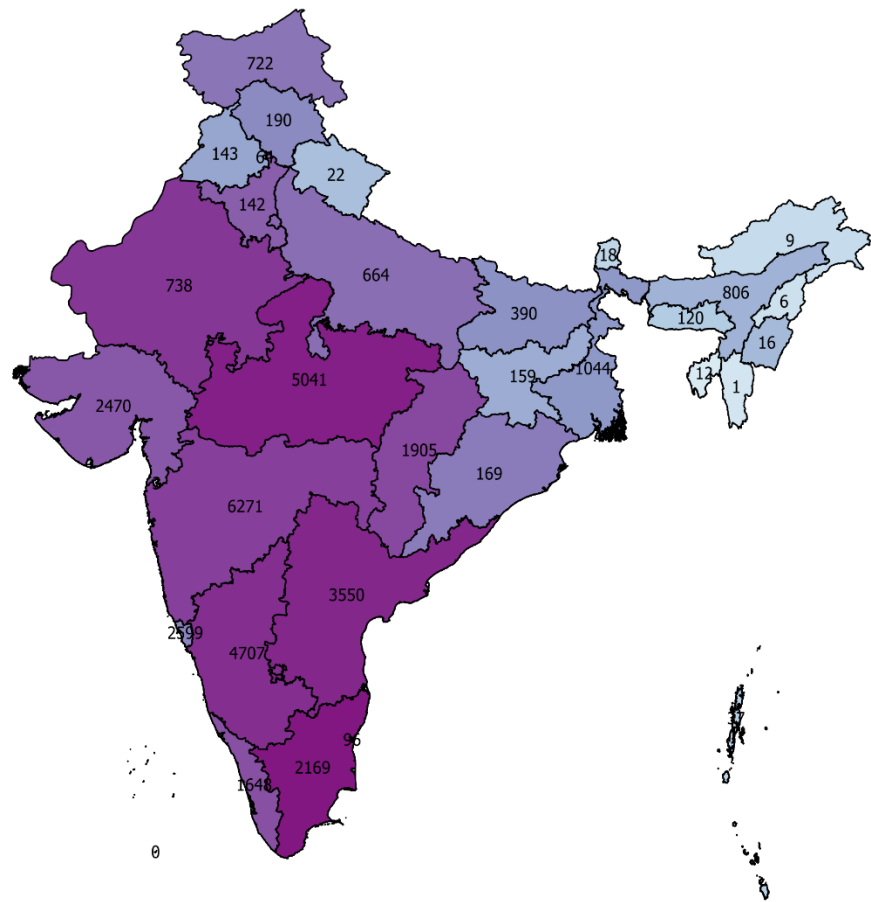
MINOR ACCIDENTS STATE WISE



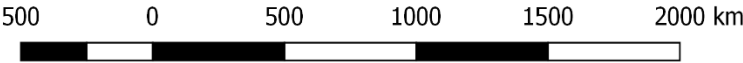
SCALE



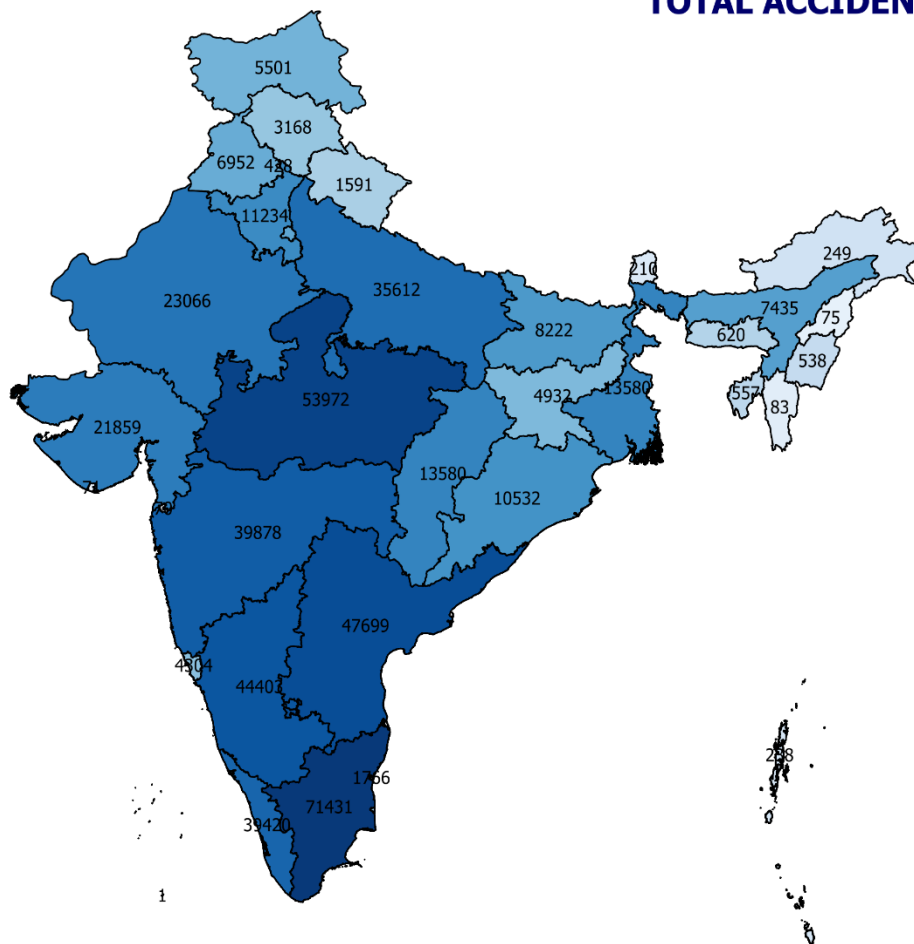
NON INJURY ACCIDENTS STATE WISE



SCALE



TOTAL ACCIDENTS STATE WISE



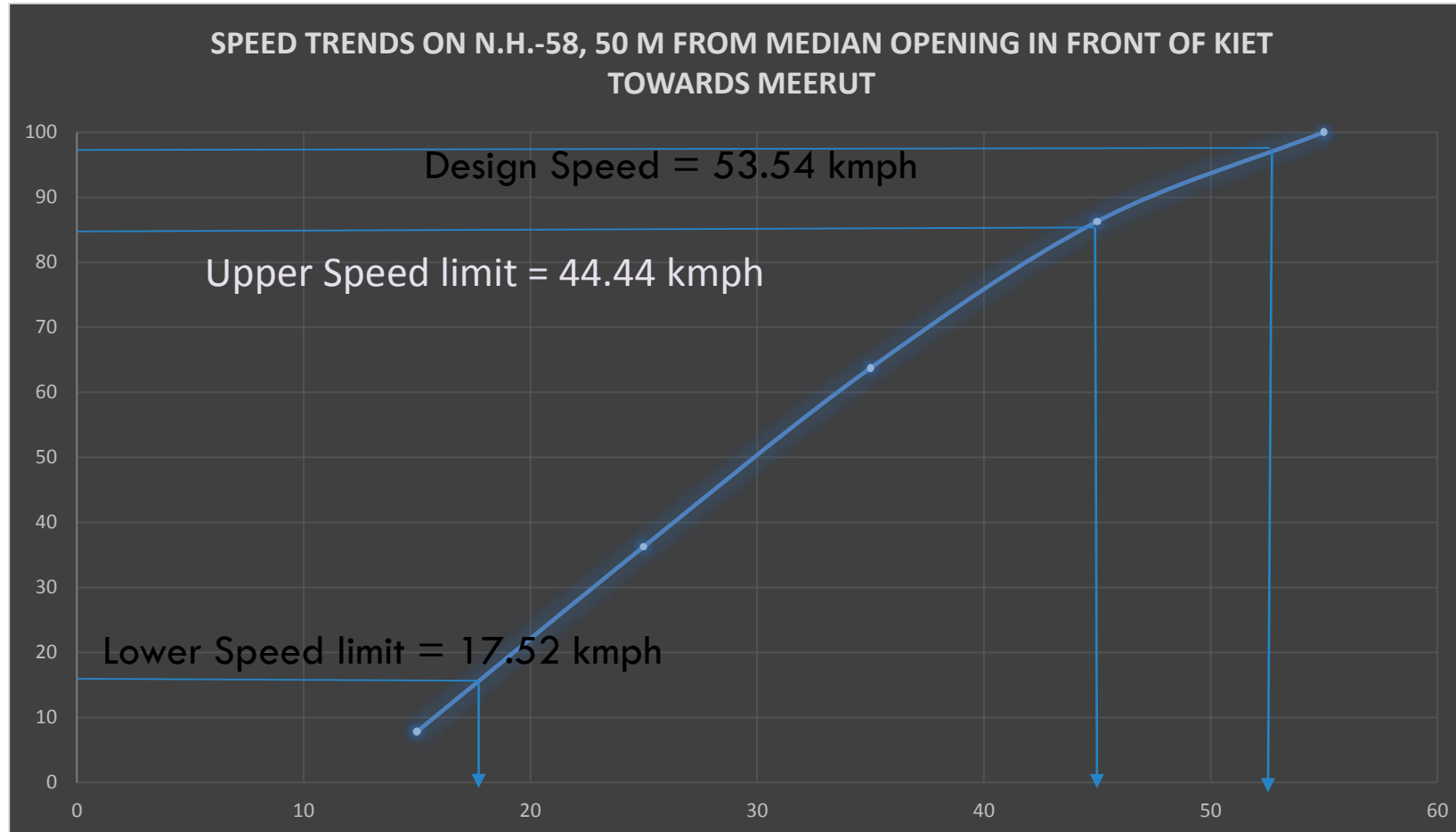
Legend

IND_adm1	
1	5501
70	6952
71	7375
75	7435
83	8222
210	10532
238	11234
249	13580
428	21859
538	23066
557	35612
620	39420
1591	39878
1766	44403
3168	47699
4304	53972
4932	71431

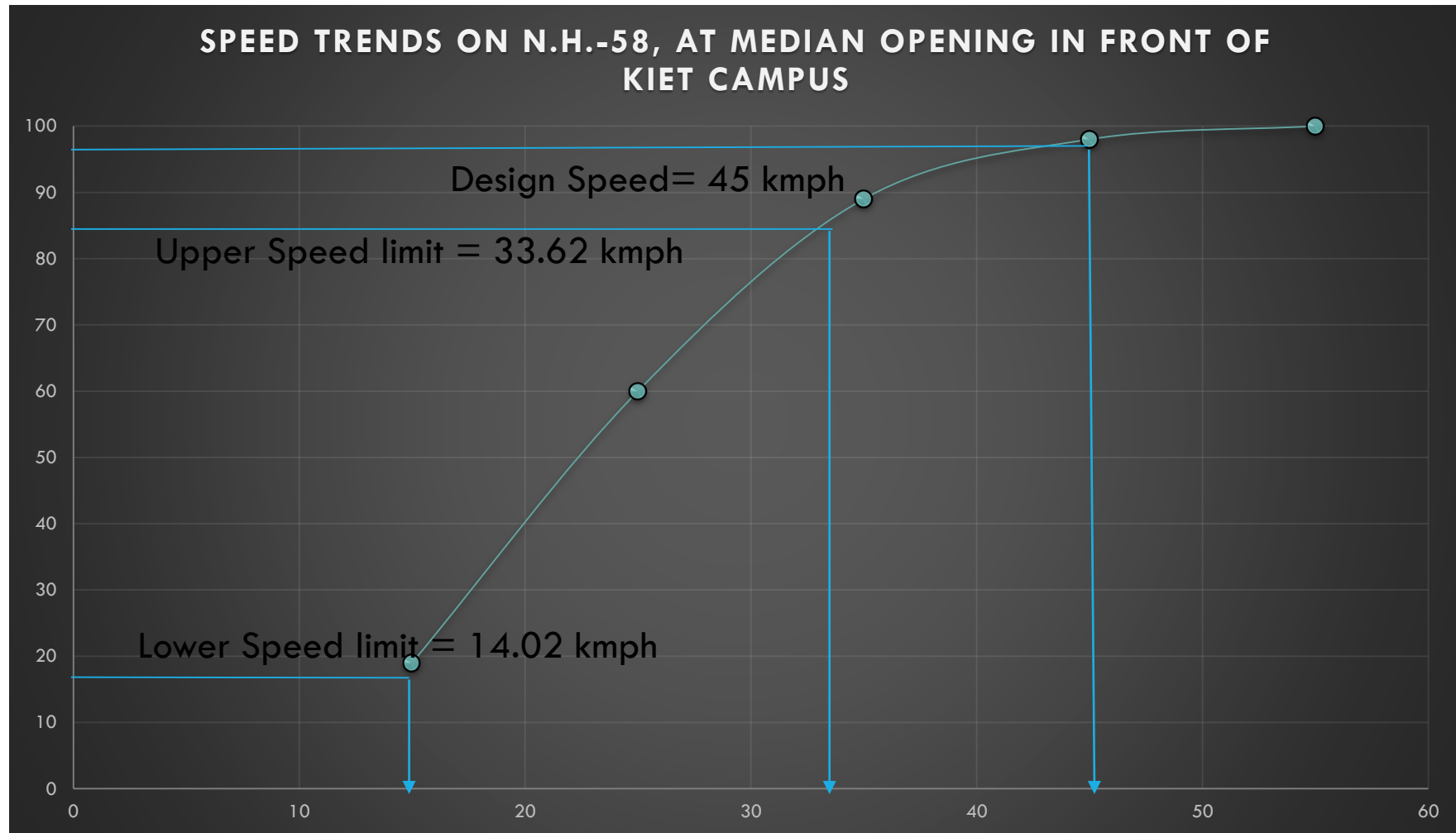
SCALE

500 0 500 1000 1500 2000 km

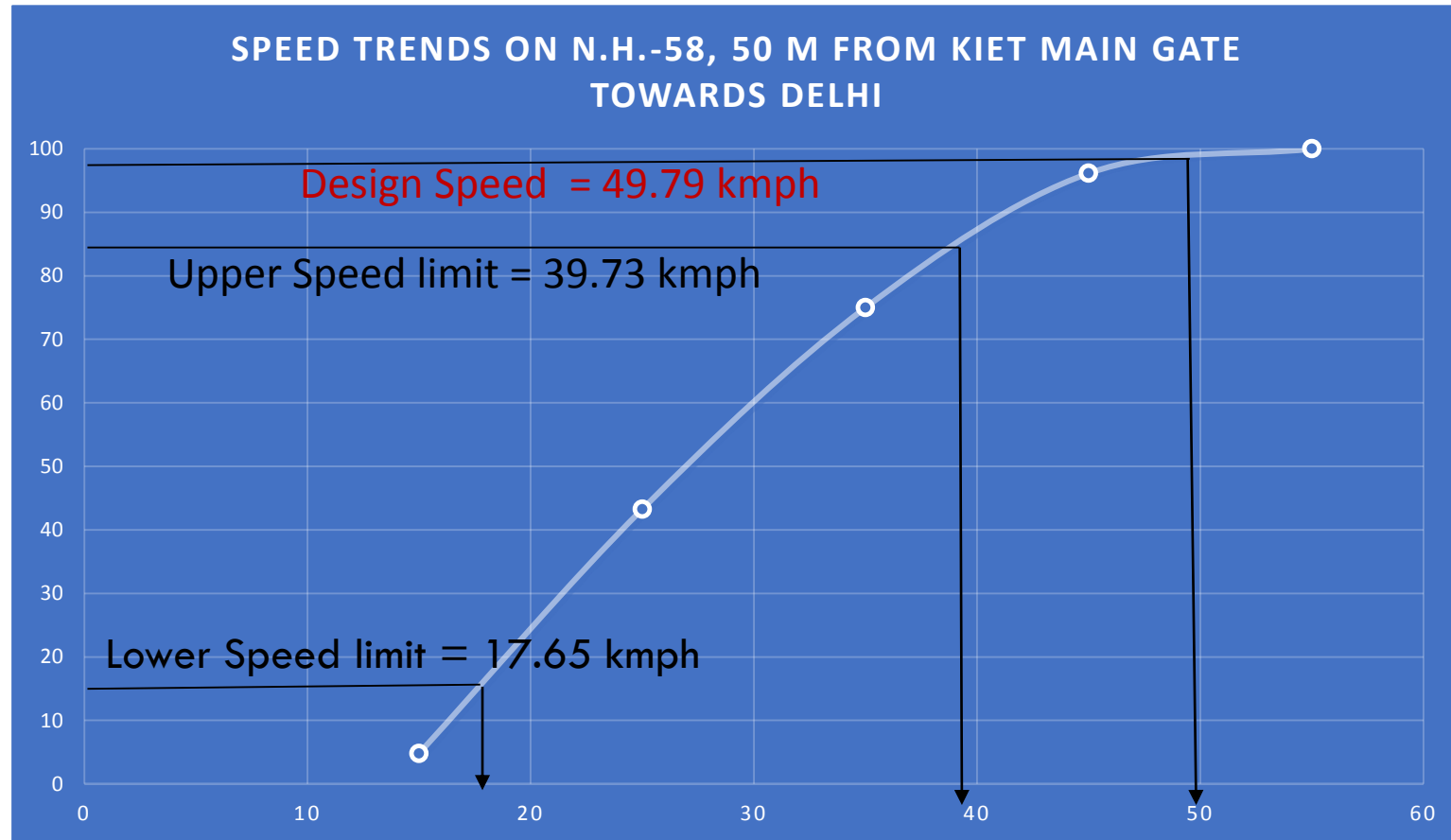
GROUP 2



GROUP 3



GROUP 1



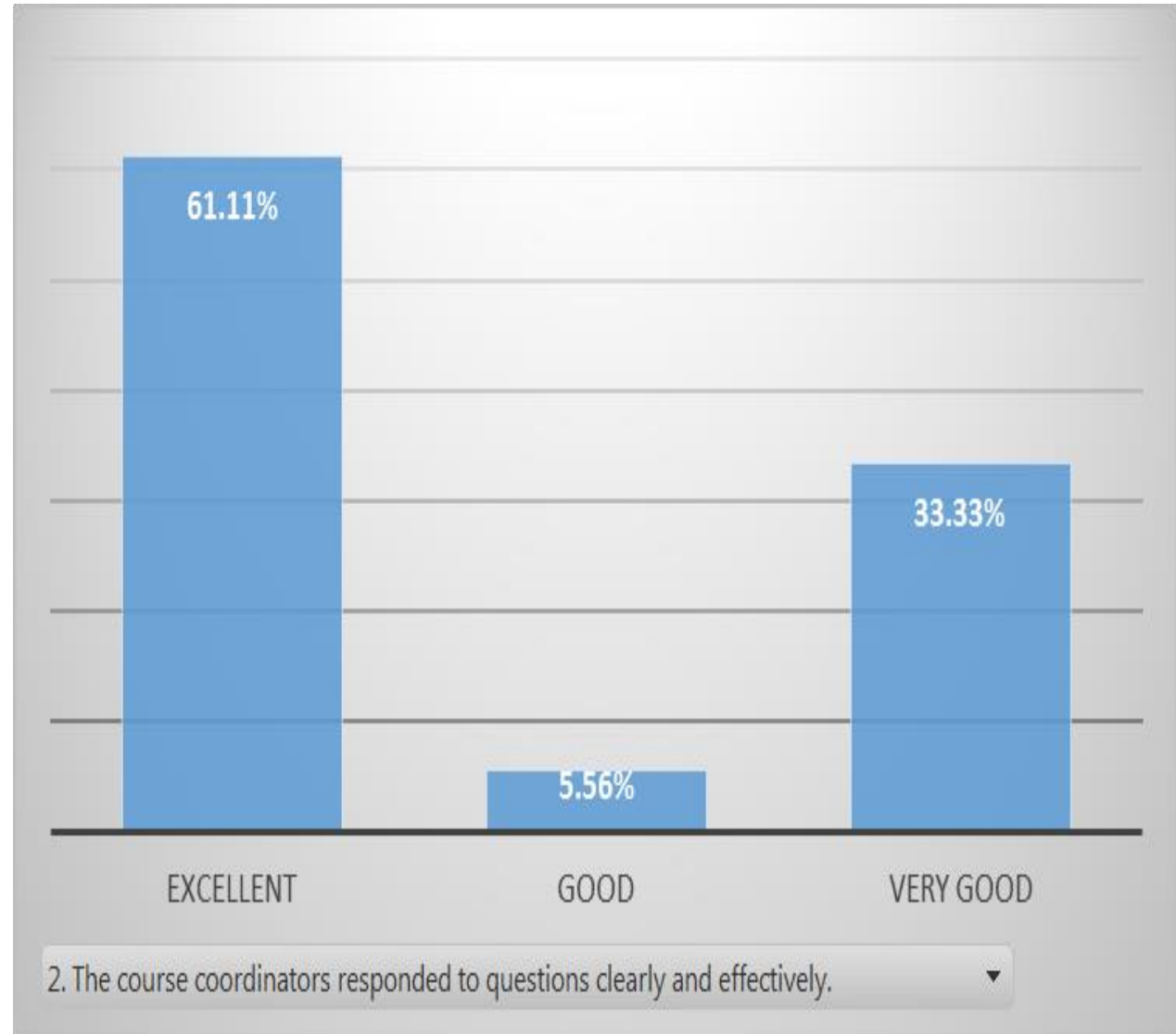


FEEDBACK OF SUMMER SCHOOL FROM PARTICIPANTS

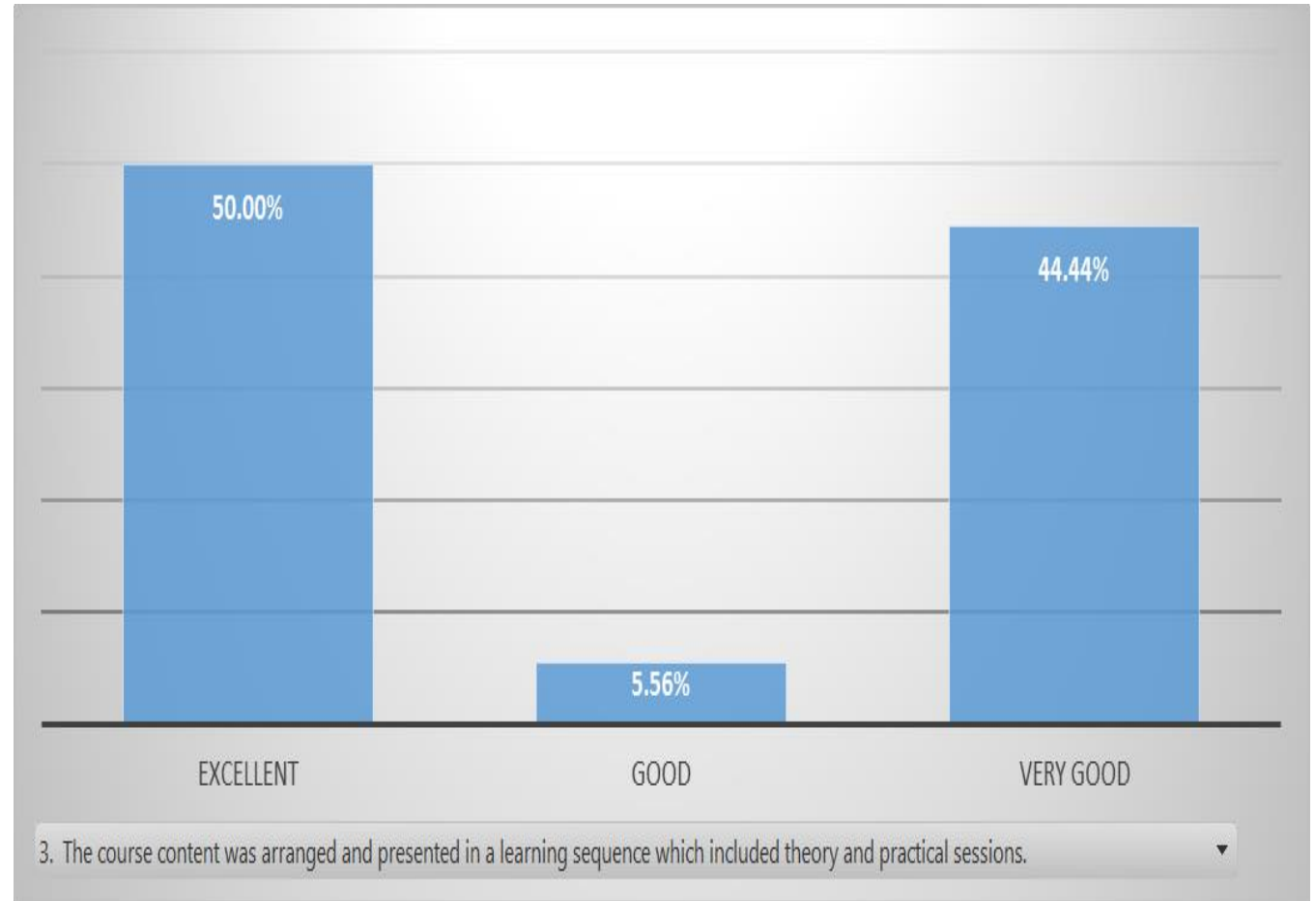
1. THE COURSE COORDINATORS EXPLAINED CONTENT IN EASY MANNER TO UNDERSTAND.



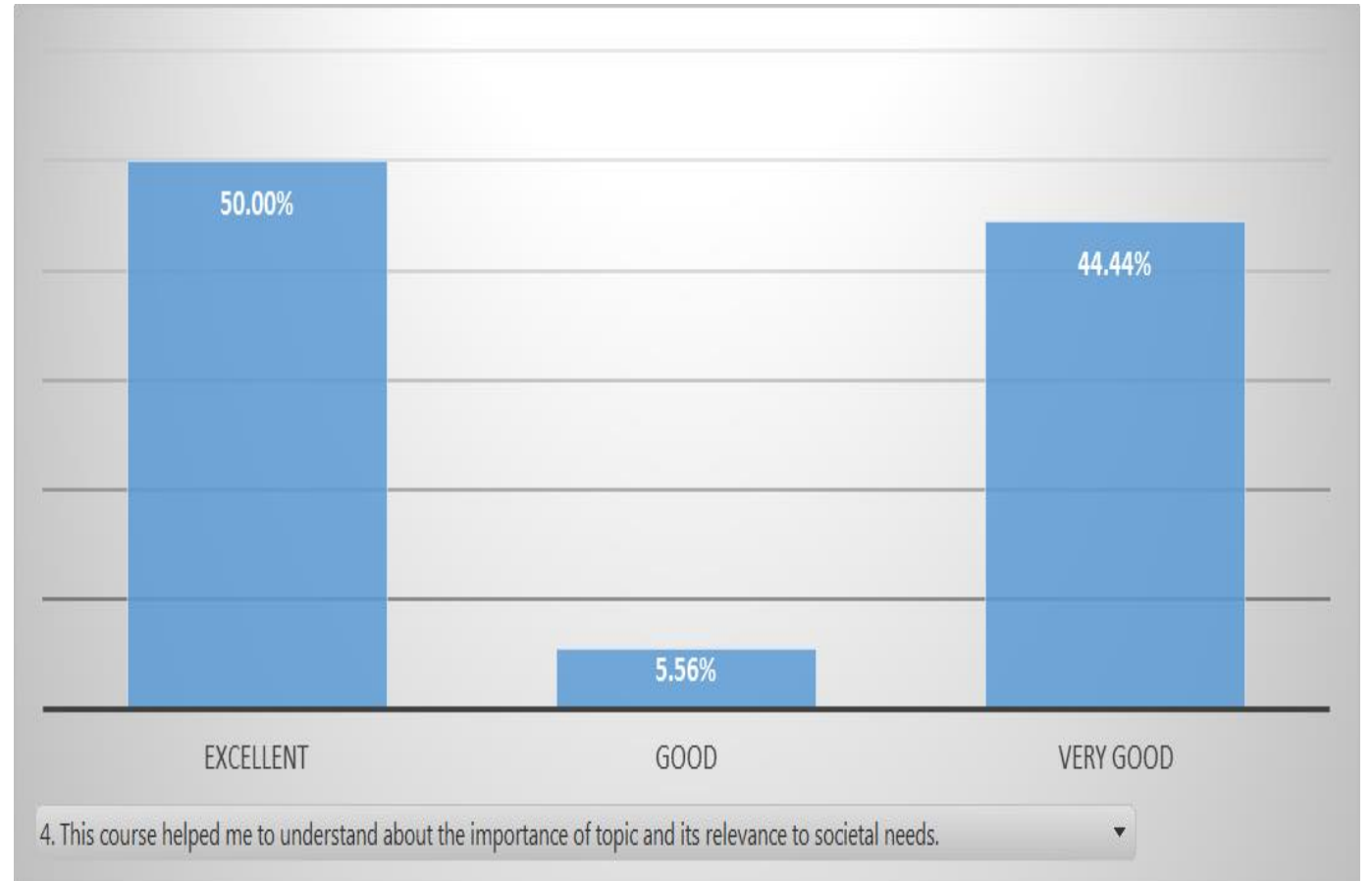
2. THE COURSE COORDINATORS RESPONDED TO QUESTIONS CLEARLY AND EFFECTIVELY.



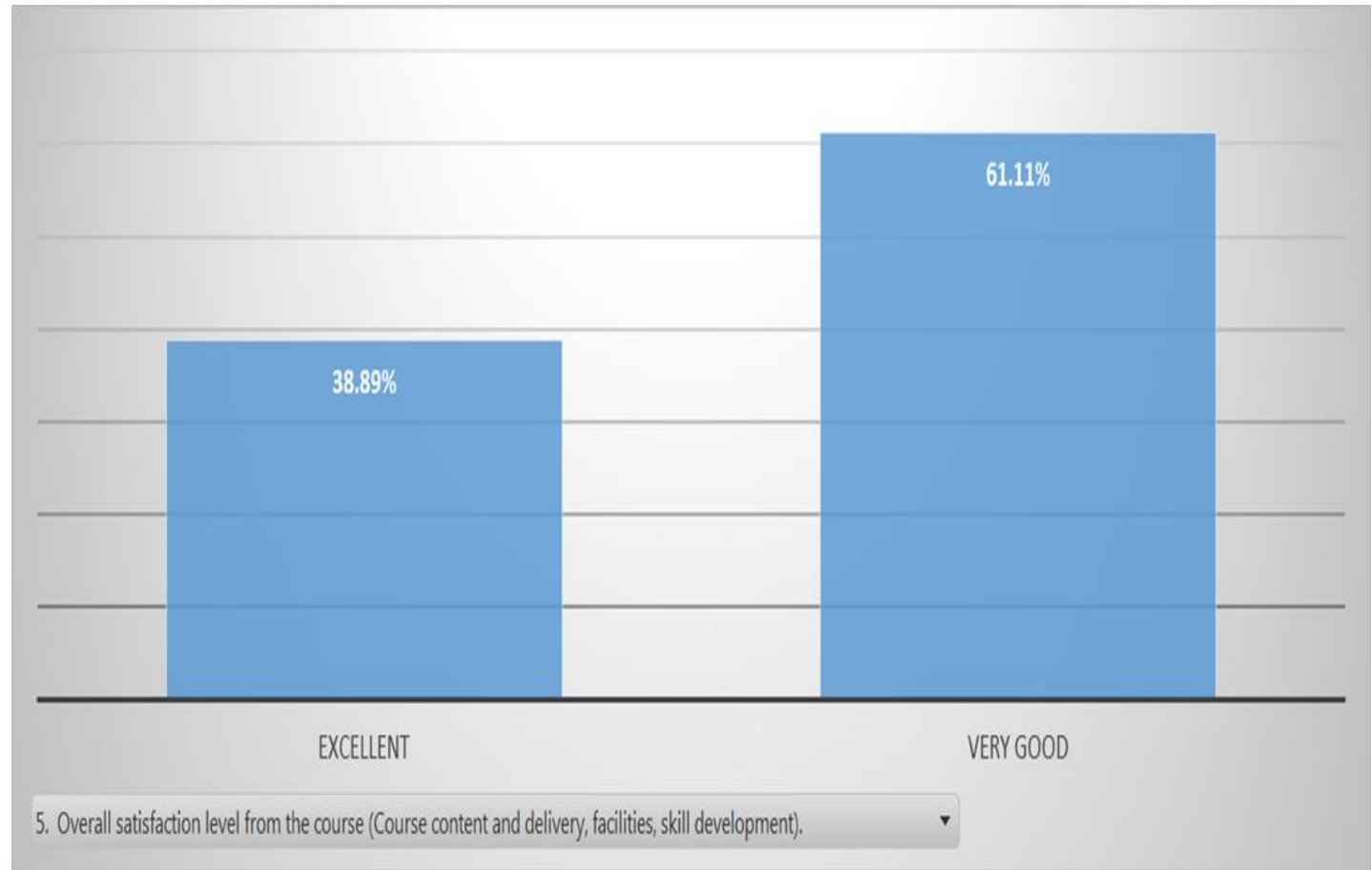
3. THE COURSE CONTENT WAS ARRANGED AND PRESENTED IN A LEARNING SEQUENCE WHICH INCLUDED THEORY AND PRACTICAL SESSIONS.



**4. THIS COURSE HELPED
ME TO UNDERSTAND
ABOUT THE IMPORTANCE
OF TOPIC AND ITS
RELEVANCE TO SOCIETAL
NEEDS.**

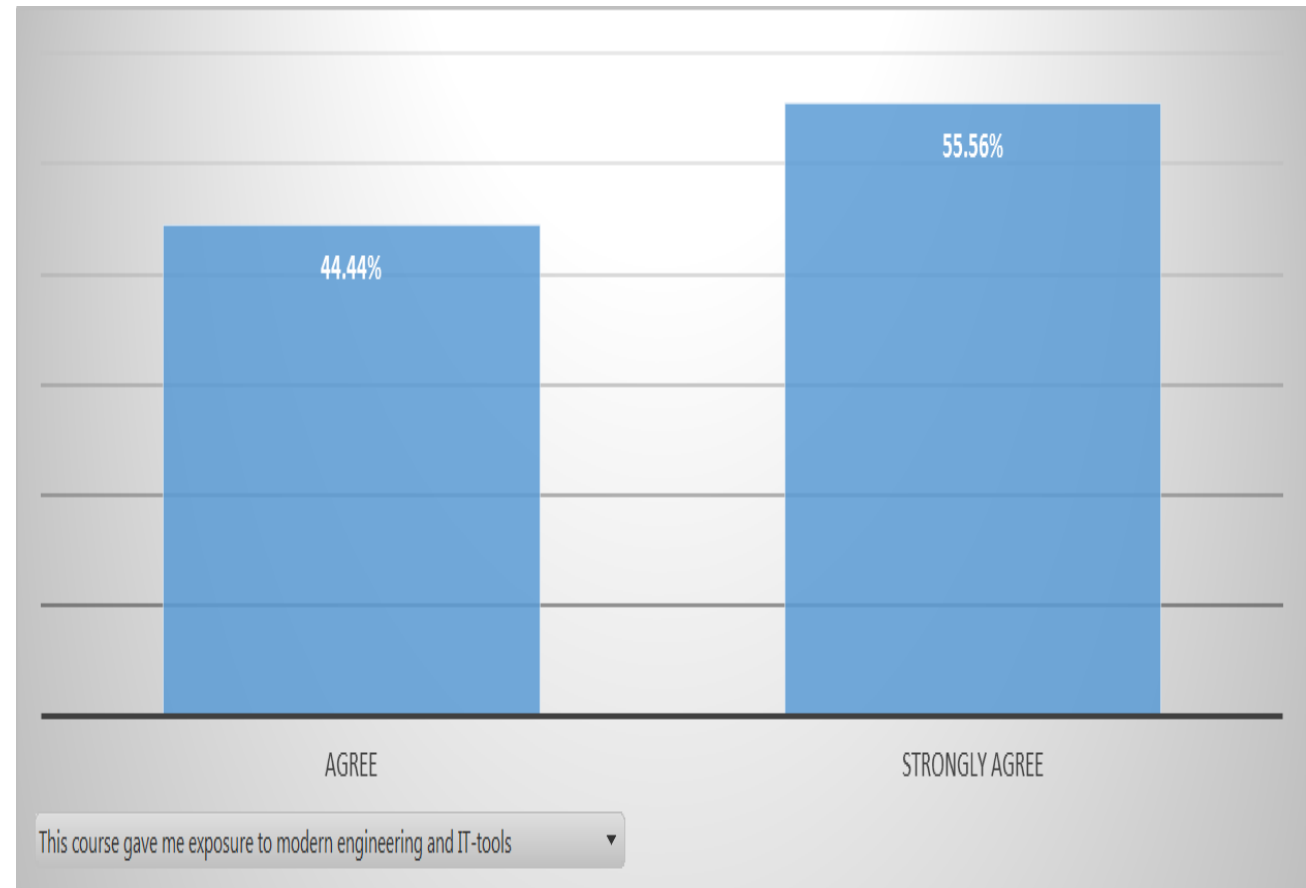


5. OVERALL SATISFACTION LEVEL FROM THE COURSE (COURSE CONTENT AND DELIVERY, FACILITIES, SKILL DEVELOPMENT).

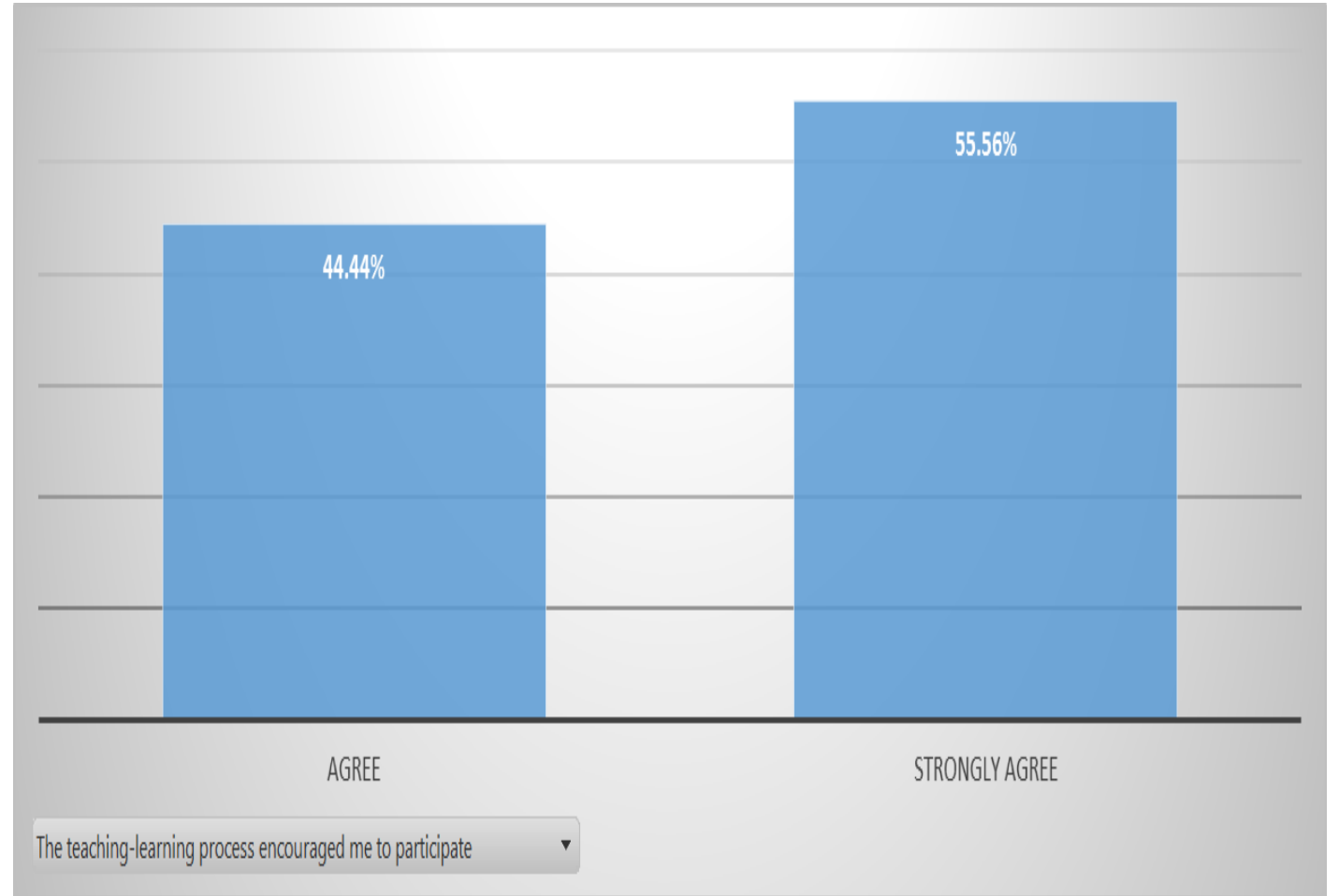


OVERALL EVALUATION OF THE SUMMER SCHOOL COURSE BY PARTICIPANTS

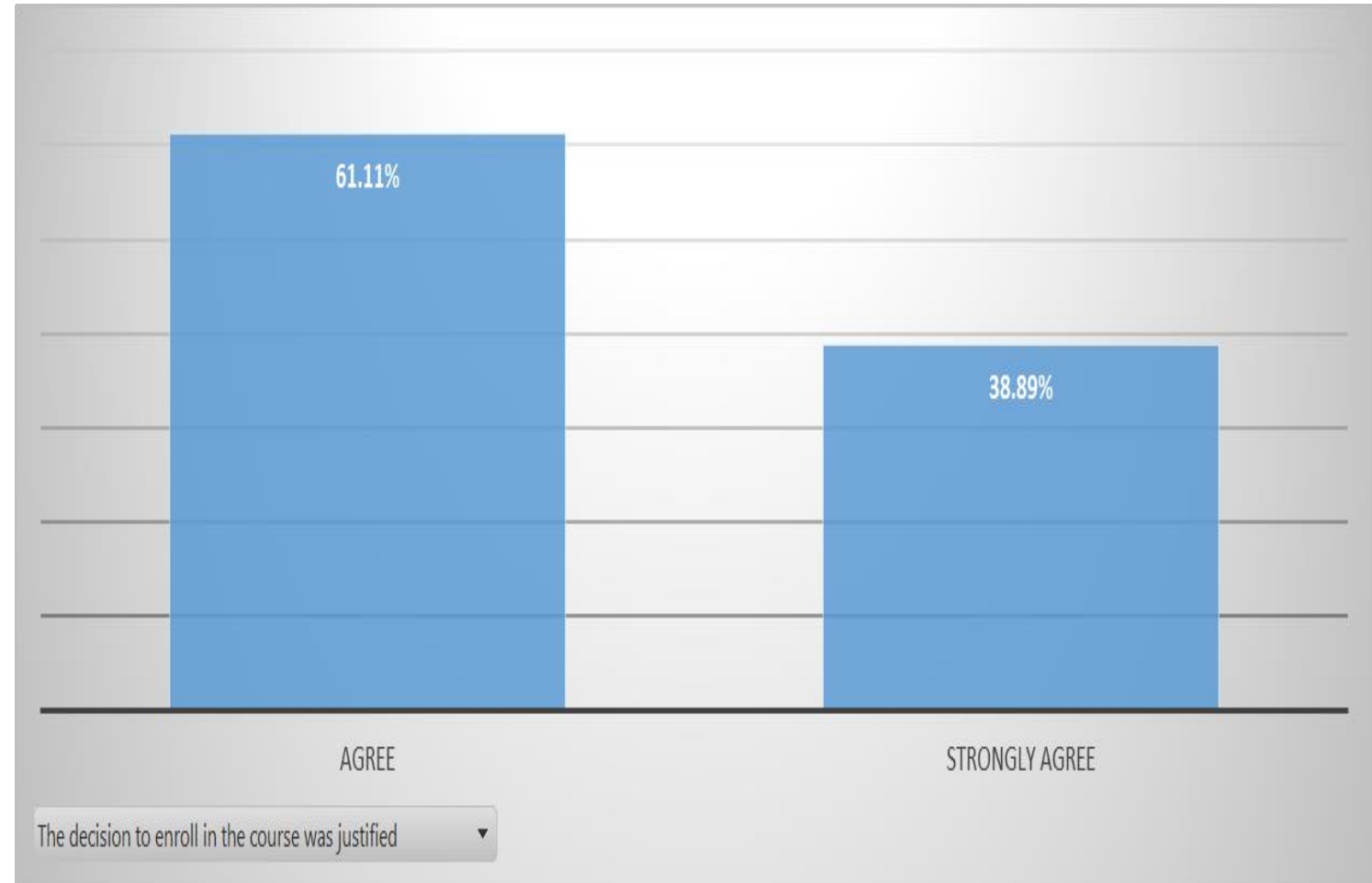
THIS COURSE GAVE ME EXPOSURE TO MODERN ENGINEERING AND IT-TOOLS



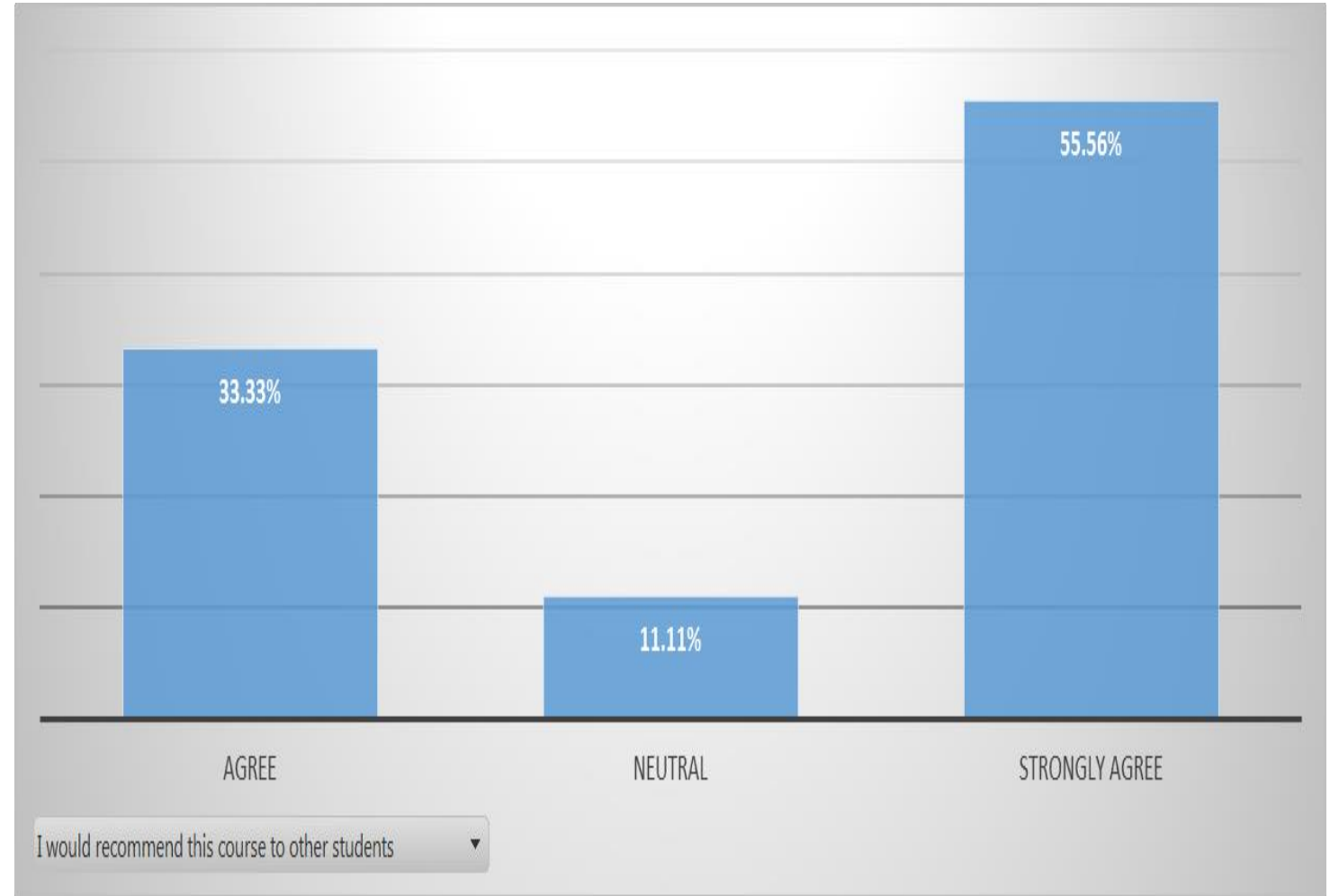
THE TEACHING-LEARNING PROCESS ENCOURAGED ME TO PARTICIPATE



THE DECISION TO ENROLL IN THE COURSE WAS JUSTIFIED



**I WOULD RECOMMEND
THIS COURSE TO OTHER
STUDENTS**



THANK YOU!

DEPARTMENT OF CIVIL ENGINEERING, KIET GHAZIABAD

Summer School 2017-18

(1) Identification of accident Prone spots using GIS

Fee : Rs. 300/-

Attendance Sheet

S.No.	Roll No	Name	Sem	18/06/2018	19/06/2018	20/06/2018	21/06/2018	22/06/2018	23/06/2018
1	1602900015	Ankur Vaiyagra	IV	P	P	P	P	P	P
2	1502900049	Gaurav Kumar Pathak	VI	P	P	P	P	P	P
3	1502900099	Sandeep Verma	VI	P	P	P	P	P	P
4	1602900090	Saurabh Saxena	IV	P	P	P	P	P	P
5	1602900085	Sachin Singh	IV	P	A	P	P	P	P
6	1602900082	Riyanshu Pal	IV	P	P	P	P	P	P
7	1602900024	Arpit Poonia	IV	P	P	P	P	P	P
8	1602900038	Dushyant Kumar Mathur	IV	P	P	P	P	P	P
9	1602900041	Hardik Bansal	IV	P	P	P	A	P	P
10	1602900045	Himanshu Sharma	IV	P	P	P	P	P	P
11	1602900043	Harsh Vardhan Gupta	IV	P	P	P	P	P	P
12	1602900033	Chirag Chaddha	IV	P	P	P	P	P	P
13	1602900109	Uday Pratap Singh	IV	P	P	P	P	A	P
14	1602900040	Gaurav Rajora	IV	P	P	P	P	P	P
15	1502900078	Nitish Kumar	VI	P	P	A	P	P	P
16	1502900066	Mayank Prabhakar	VI	P	P	P	P	P	P
17	1502900061	Kritika Chaudhary	VI	P	P	P	P	P	P
18	1702900905	Aniket Kumar Anand	IV	P	P	P	P	P	P
19	1502900106	Shashank Chandra	VI	P	P	P	P	P	P
20	1602900080	Ritika Verma	IV	P	P	P	P	P	P
21	1502900084	Prasoon Awasthi	VI	P	P	P	P	A	P
22	1502900113	Vaibhav Chaudhary	VI	P	P	P	A	P	P
23	1602900066	Payal	IV	P	P	P	P	P	P

[Signature]
HOD, CE