



KG REDDY
College of Engineering
& Technology

**Value Added Course in Civil Engineering with
Specialization in
“Geographical Information System (GIS)”
Held On
December 2017 to March 2018**



**Department of Civil Engineering,
KG Reddy College of Engineering & Technology**
Chilkur(Village), Moinabad(Mandal), Hyderabad RR Dist-501504


Coordinator


Principal
Principal
KG Reddy College of Engineering & Technology
Chilkur (V), Moinabad (M).
R.R.Dist., Telangana.

SUMMARY REPORT OF GEOGRAPHICAL INFORMATION SYSTEM (GIS)

About Course

The value added course on Geographical Information System is concluded its work successfully by department of civil engineering (CE) in KG ready college of Engineering and technology (KGR CET), Hyderabad, Telangana. This course is a forum to bring together students to discuss innovative ideas and diverse topics of this course on next generation of information technologies. Department has taken a new step for students to improve the quality of study through this course and become most wide scale , extensive, spectacular event in civil engineering. The course was held in two locations of the department (a) Department E-learning room for theory class and (b) Department laboratory for practical class.

Geographic Information System (GIS) is a system intended to capture, store, manipulate, analyze, manage, and present all types of geographical data. In the simplest terms, GIS is the merging of cartography, statistical analysis, and database technology.

A GIS can be thought of as a system. It digitally creates and *manipulates* spatial areas that may be for jurisdictional purpose or application-oriented. Generally, a GIS is custom-designed for an organization. Hence, a GIS developed for an application, jurisdiction, enterprise, or purpose may not be necessarily interoperable or compatible with a GIS that has been developed for some other application, jurisdiction, enterprise, or purpose.

This course is absolutely practical oriented course which is helped to student for making their carrier through database in any industry. The students of 3rd year 2nd semester have been benefited in many ways from this course. More than 80 students have joined in this course as their own interest and completed this course. The trainer taught to students very nice with real time example and sharing his knowledge to develop technical skill in industry.

Objectives of the course

The objective of the course is to bring together experts from academic institute and training institute for sharing of knowledge, expertise and experience in emerging trends related to the civil engineering topics.

GIS Objectives. Maximize the efficiency of decision making and planning. Provide efficient means for data distribution and handling. Complex analysis/queries involving geographical reference data to generate new information.

Some of the major objectives of GIS are to

- Maximizing the efficiency of planning and decision making
- Integrating information from multiple sources
- Facilitating complex querying and analysis
- Eliminating redundant data and minimizing duplication

Application of GIS

GIS is a relatively broad term, which can refer to a number of technologies and processes, so it is attached to many operations; in engineering, planning, management, transport/logistics and analysis.

Benefits of Stand pro Software

1. Flexible modelling environment

It is based on latest programming technology that enables it to create an exact three dimensional replica of the required building or structure. The new Stand Pro software is equipped with advanced graphical environment and about 70 international design codes in 7 different languages. The flexible modelling environment of Stand Pro software is due to the availability of a wide variety of advanced structural analysis and design features.

2. Availability of a wide range of design codes

This software has included both concrete and steel design together, thus making it a one-stop-point for building design. Due to the availability of a large variety of design codes, this software can easily determine the drift, deflection and depth of any construct. This software can also calculate the reinforcement for the concrete columns, beams and shear walls.

3. Interconnected and open architecture

Unlike other structural designing software, it can be modified to suit the design needs. This has been developed with an open architecture called Open STAAD. All the input and output functions are already included in the software itself. The software also has a pre-built collection of most used structures, such as trusses, buildings, mats, etc. that can be remodelled as per the requirement. New templates can also be added to the software. As it is an open architecture software, you can link your model to the Excel or Match CAD, so when the model changes, Excel also changes. One most exciting feature of this software is that it has embedded VBA that permits you to write your own designs and templates.

4. Contains All Features of Structural Engineering:

This software contains all the necessary tools required to design a structure. It works in-sync with other programs such as Stand pro Foundation, STAAD. offshore, and RAM Concept for designing of foundations, offshore structures and steel connection, respectively. Also, If you are designing bridges or pipes, the software includes their respective features as well.

More benefits of this course as job through followings

(a) Geospatial Analyst, (b) GIS Analyst, (c) GIS Data Manager, (d) GIS Developer, (e) GIS Specialist, (f) GIS Technician, (g) Programming Lead, (h) Systems Architect

Outcomes of the course

GIS developers and managers will account for the highest percentage of job postings. Possessing python programming skills will help you stand out, according to GIS Geography. GIS Lounge found that many large companies such as Ersi are embracing Python because of its easy language and widespread use.

Summary of Participants

(a) Number of students attended this course: 82
(b) Number of certificate issued: 82

In December 2017

Inauguration of value added course

The first day of value added course started with welcoming and opening ceremony at the KGR CET conference Hall. The following dignitaries were representatives of the value added course who were addressed and pointed out the importance on course with short welcoming speeches.

Welcome addressed by Dr. T. S. Ramesh Babu, HOD, CE, KGR CET
About the value added course by Principal Dr. R. S. Jahagirdar, KGR CET.
Importance of this course by expert trainer, Mr.G.Venkat Sai Prasad
Interaction with 3rd year /2nd semester students

Geographical Information System (GIS) is a system anticipated to capture, analyze, manipulate, store, manage and present every type of geographical data. The merging of cartography, database technology, and statistical analysis is all what GIS means and is the reason why it is has been intensively used in the civil engineering niche. GIS is used more in the mechanical practice of construction industry. In construction during the preparatory phase, the issues of spatial positioning have to be solved cooperatively with the checking of the purposely and feasibility, the traffic projects are operated out and the alternative. GIS technology is gaining interest from a wide range of civil engineering disciplines owing to its potential to offer a new way of resolving environmental difficulties which could reduce costs, support multi-discipline analysis and improve quality for complex projects.

GIS software is inter-operable that allows many data designs used in the infrastructure development permitting civil engineers to give out data to many agencies in the required format while maintaining the data's core reliability. GIS in civil engineering provides a dominant location to conduct longitudinal analysis overlay data and assimilate other solutions systems. Fabricated on a database and not in the individual project files, GIS allows civil engineers to effortlessly manage share, reuse and analyze data thus managing time and resources.

Managing Visualizing and Integrating Data

GIS can be used to interpret and combine data from many different formats. It allows you to integrate CAD drawings, satellite images, and parcel maps to produce a visual object overview and turn it into a clear, understandable report. It takes CAD data without alteration and includes it as a film in a geodatabase. GIS geodatabase offers the capability to handle rich data types and apply refined rules and regulations. Besides managing bigger capacities of geographic data, it also implements cultured business logic that for instance, build relationships amongst data brands such as validates data, geometric and topologies networks, and control access. Data managing tools balance to meet all your needs from workgroups, individual to large multiuse enterprises.

Infrastructure Management

Envisaging the surrounding environment and assets when you are building, upgrading and repairing infrastructure, allows you to decide how to arrange your work, assure others about its importance and make a proper decision when planning your work. Having a clear and accurate picture of the project helps you to understand better your needs, minimize

problems and mitigate environmental impacts and costs. All these procedures are improved when GIS is the primary system for data visualization and management. When having less time, using tools that modernize your business processes and offer you the best visualization and mapping makes sense.

GIS helps to present information in a straightforward method to your project. With ArcGIS Server technology, it is easier to take the map of something you have created with ArcGIS Desktop software and post them on the Web so that your staff and partner in the field can view how a project is developing.

Critical Infrastructure Protection

The security and the safety of the building are in the hands of the engineers. Utilities, bridges and other crucial infrastructures require comprehensive decision-making equipment for preparation response, emergency assessment and recovery activities. GIS technology offers situational responsiveness tools for combining information from flood evacuation and elevation routes to inspection results and structural specifications. With vital infrastructure information packed in a geodatabase, it is easier to display the information in actual time on a Web-based map. You can use GIS tools to analyze and combine specific data required to meet a required task. Add weather data and current traffic, draw barrier protection regions and share new changes in actual time.

In January 2018

Land Fill Site Assortment

GIS is a useful tool which can be utilized in the search for appropriate new landfill sites. It is also powerful technologies that permit correct spatial data processing covering a bigger number of themes. The arrival of highly sophisticated high-tech GIS systems, Landsat satellites and digitalized map data and other remote sensing devices that helps define land use patterns and infrastructural have dramatically improved the GIS potential to aid the progress of more organized approach to landfill site selection. This kind of approach should preferably syndicate computerized GIS and geotechnical site analysis procedures. Also, there is a need for better transparency in the procedure of site selection to encourage public confidence in the nonbiased scientific foundation process.

Urban Development and Town Planning

The exceptional growth of urbanization in many countries such as India has caused problems of sanitation, power and waste supply, housing, environmental pollutions and disposal of effluents. For a maintainable development of urban agglomeration, ideal resources development model and urban land use plan need to be generated by integrating the information on demographics, natural resources and socio-economic statistics in a GIS domain with the presently available satellite records.

Site Analysis

GIS quickly analyzes and incorporates various types of images and information for sites analysis. It's extremely accurate results presented geographically provide insights into interactions and connections as clients can relate easily to a simple map. The base map may include serial photos, environmental protection areas, city and zoning designations soil and topographic maps. Overlays or pertinent data on commercial activity, traffic flow, and

population growth combine to paint a significant picture of sites constraints and opportunities swiftly.

Watershed Management

GIS improves controls for flow statics, watershed features, and debris flow probabilities and enables the watershed allocation using Digital Elevation Models (DEMs). It offers a stable procedure for watershed analysis using scandalized datasets and DEMs such as land cover, climates variables, gauging station locations and soil properties. Arc Hydro with ArcGIS offers the flexibility to syndicate watershed datasets from a map source with river and stream networks.

Better Management at a Reduced Cost

Engineers who make use of GIS are able to save money because they no longer require owning expensive printers or properties for conscripting such as technical pens and papers. Equally, they don't require having a large control of drafters or sketching the same plot of land or a particular structure detail by hand. They only need to state a location on GIS mapping. This means improved communication among the team members as well as better record keeping when you make changes in the ground. The engineer can draw changes in the ground to the progress in the project to advance billing while the phases in the project are finalized.

Offers Computerized Documents

Old engineering portrayals such as drawing related to structural engineering drawings or land development drainage have similar features. They are inexpensive to produce, portable, and easily passed between project owners, project team members, and government officials. GIS allows team members to remotely access all data without the need to search packages of drawings. It also allows restriction of data to certified users, eliminating the likelihood of drawings getting into the hands of an uncertified individual.

Provides All Geographic Information

ESRI, the firm that developed GIS, assures that GIS allows you to request any question about a particular place. GIS will assist you in accumulating and obtaining the date, help you in analyzing and examining the data and act on the information received by GIS. ESRI defines this as "acquire, ask, analyze, examine and analyze" sequence as the geographic approach since all that happens or has happened before or could happen in the future is connected to geography. GIS connects all this information to geography and permits you to access and analyze it as long as you are aware where something occurred.

Spatial Analysis

GIS offers tools for demonstrating information to support faster decisions, optimize network and resource allocation, characterize and discover geographic patterns and systematize workflow through a graphical modeling environment.

Spatial Data Management

GIS manages and organizes geographic information to support efficient and fast visualization and logical applications, no matter the amount of data held in an organization. Organizations securely store and manage massive amounts of spatial information and promulgate data changes between several data sources.

In February 2018

Transportation Planning

GIS is used to manage transportation and logistical hitches. Once the transportation department is planning to construct a new road or a railway route, engineers can perform this by adding topographical and environmental data into the GIS platform. It easily points out the best direction for transportation grounded on criteria such as least harm to habitat, flattest route, and least disturbance to the local individuals.

Environmental Analysis

GIS provides exploration to support design including material consumption, hydrology analysis, soil load analysis, volume calculations, runoff and air emissions, slope stability, traffic capacity, and erosion control. Environmental analysis with GIS permits you to view trends, patterns, and relationships that weren't evident without visualization of data.

Provide Construction Requirements

GIS provides management and mechanics for constructing new infrastructure including earth movement, machine control takeoffs, payment calculations, schedules, logistics, materials tracking and traffic management.

Data Collection As-Built Surveying

GIS provides tools to accumulate detailed data and document present settings. As-built surveying with GIS expertise allows the surveyor to provide data into operational GIS, eradicating costly data conversion and minimizing errors.

Designing

GIS permits the formation of innovative infrastructure data for diverse civil works including, classifying, cross sections, stipulations, quantity haul plans, design planning, equipment presentation, and environmental improvements plans. This includes incorporation with traditional design outfits such as database and CAD for new design capabilities.

Preparing Response and Retrieving Activities

GIS expertise provides situational awareness and equipment for linking information from flood depth and clearing paths for a bridge's mechanical provisions and inspection results.

CAD Integration

CAD interoperability is an essential part of ESRI's software solutions. Attainable files on national GIS uses Web locations, and level CAD documents are adapted and managed from the main location, reducing duplicated datasets and giving a platform for all spatial data supply and functionality.

Results Interpretation

One of the most obvious and interesting features of GIS is the capability to offer analysis results in map form. The invention of cartographic quality maps or presentations can provide support in numerous pertinent decision processes. More advantages can be achieved using other graphic GIS features. Through interactive model visualization, reasonable predictions can be assessed. Visualization can be accompanied by spatial queries of model outcomes. Such queries help to identify possible correlations between model predictions and input parameters.

Data Handling

GIS in civil engineering software has a unique ability to capture manage and store spatially referenced data such as lines points and polygons or as continuous field. It is used as the spatial file; GIS helps in modeling presentations through handling a precise form of data that would else be compromised to store in a spatial database. This is one of the most compelling motives for using GIS and the most mentioned benefit.

Land Analysis

GIS software enhances the optimum land use, functional proficiency of a proposed design, its marketability and the general cost-effectiveness of a project. GIS may be used for hydrologic, terrain, visibility analysis, and land-use suitability. Also, it can be used to assess the environmental effect for defining the consequences of different regulatory requirements.

Model Application

GIS provides a framework to model spatially neighborhood engineering phenomena. Engineering explores that has been traditionally mapping founded such as flood predicting benefit from efficiency in performing spatial operations that were achieved manually in the past.

Visualization and Cartography

By using 2D and 3D, you can experience a more cooperative way of seeing data, picturing change over space and time to identify trends and patterns and disseminate knowledge to managers, engineer, regulators, clients, and field-based personnel.

Construction Management

GIS provides the mechanism and management for constructing new infrastructure including machine control, intermediate construction, earth movement, traffic management, logistics, material tracking and payment calculations.

Operating and Maintaining Infrastructure

GIS mapping models infrastructure network and utility and incorporates other related types of data such as CAD drawings and raster images. Display tools and spatial selection allow you to visualize ongoing activities, scheduled work, historical information and recurring maintenance problems.

In March 2018

3D Renderings

Environmental analysis with GIS mapping permits you to view trends, patterns, and relationships that were not visibly evident without data design visualization. It allows the formation of new infrastructure for innovative civil works including contouring, grading, mass haul plans, equipment staging, and environmental mitigation plan.

Providing Accuracy

GIS saves time and provides accuracy when producing a map for the project. It enables to have exceptional maps with various scales at low cost. The map acts as the project document, and it is used in the design stage at an estimated cost. The construction manager needs such in their job.

Regional Planning

Planners use GIS to research, implement, develop, research, and the progress of their plans. It offers surveyors, engineers, and planners with the tools needed to map and design the cities and neighborhoods. Planners have the technical proficiency, political savvy, and financial understanding to transform vision tomorrow into strategic action as they make use of GIS to facilitate the process of decision making.

Space Utilization

GIS helps engineers to arrange and spatially visualize small space and come up with the best way to use it. Operational costs can be minimized by using space more efficiently such as managing moves of assets and people.

GIS and Civil Engineering

An advanced information system like GIS plays a vital role and serves as a complete platform in every phase of infrastructure life cycle. Advancement and availability of technology has set new marks for the professionals in the infrastructure development areas. Now more and more professionals are seeking help of these technologically smart and improved information systems like GIS for infrastructure development. Each and every phase of infrastructure life-cycle is greatly affected and enhanced by the enrolment of GIS.

- **Planning:** In planning its major contribution is to give us with an organized set of data which can help professionals to combat complex scenarios relating to the selection of site, environmental impact, study of ecosystem, managing risk regarding the use of natural resources, sustainability issues, managing traffic congestion, routing of roads and pipelines etc.
- **Data Collection:** Precise and accurate data is the core driving factor of any successful project. GIS is equipped with almost all those tools and functions that enables user to have access to the required data within a reasonable time.
- **Analysis:** Analysis is one of the major and most influential phases of infrastructure life cycle. Analysis guides us about the validity or correctness of design or we can say that analysis is a method which supports our design. Some of the analyses that can be performed by GIS are:
 - Water distribution analysis
 - Traffic management analysis
 - Soil analysis
 - Site feasibility analysis
 - Environment impact analysis
 - Volume or Area analysis of catchment
 - River or canals pattern analysis
 - Temperature and humidity analysis

Construction: It is the stage when all layout plans and paper work design come into existence in the real world. The GIS helps the professionals to understand the site conditions that affect the schedule baseline and cost baseline. To keep the construction within budget and schedule GIS guides us about how to utilize our resources on site efficiency by:

- Timely usage of construction equipment.
- Working Hours
- Effects of seasonal fluctuations.
- Optimizing routes for dumpers and concrete trucks
- Earth filling and cutting

- Calculation of volumes and areas of constructed phase thereby helping in Estimation and Valuation.

Operations: Operations are controlled by modelling of site data and compared by the baselines prepared in planning phase. Modelling of site may be in the form of raster images or CAD drawings. These can help us to keep track of timely operations of activities.

GIS can help to make a record of work that has been completed and can give us visualization in the form of thematic maps which will guide us about rate of operations, completed operations and pending operations. In short we can say that GIS will prove to be the foundation of next generation civil engineering.

Ref No: KGR CET/CE/2018-19/

Date: 15/12/2017

CIRCULAR

All the students of III-Year II-semester B.Tech CIVIL are here by instructed to enroll for the value added course on “Geographical Information System”, which is offered by KG Reddy college of Engineering and Technology from December 2017 to March 2018. Interested students are instructed to contact Mr.K.Thangamani for completing their registration before 20/12/2017.



HOD

11/12/17
COPY OF THE CIRCULAR BEING
FORWARDED TO THE
K.G. REDDY COLLEGE OF ENGINEERING & TECHNOLOGY
CHILKUR (V), MOINABAD (M),
R.R.DIST., TELANGANA.



Principal

Principal
KG Reddy College of Engineering & Technology
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KG REDDY

College of Engineering
& Technology

**KG REDDY COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF CIVIL ENGINEERING**

VALUE ADDED COURSE ON GEOGRAPHICAL INFORMATION SYSTEM

SCHEDULE

IN DECEMBER 2017

Introduction to GIS

- Introduction to GIS
- History of GIS
- Early developments in GIS
- Applications of GIS

IN JANUARY 2018

Map and Map Scales, Georeferencing and Projection

- Introduction to Maps, History of Maps
- Map Scales, Types of Maps
- Map and Globe, Understanding Earth
- Coordinate System, Map Projection
- Transformation, Georeferencing

IN FEBRUARY 2018

Basic concepts of geographic data,

- GIS and its components, Data models, Topology,
- Process in GIS: Data capture, data sources, data encoding,
- geospatial analysis, GIS Applications

IN MARCH 2018

Cartographic Principles and Design

- Introduction, Map layout
- Data presentation, Toposheet Indexing
- Distribution Maps

Interpolation and Web GIS

- Introduction to Interpolation
- Global Methods of Interpolation
- Local Methods of Interpolation
- Introduction to Web GIS
- OGC Standards and services

Signature of Coordinator 

SUBJECT WISE ATTENDANCE

For Subject : GIS Class : 111- Semester : 11

Sl. No.	Roll (H.T.) Number	Name of the Student	Month					
			Date					
			Lecture No.	1	2	3	4	5
1	15-103	A. Surya Prakash Reddy	2	4	6	8	10	12
2	15-105	A. Venkateshwar	2	4	6	8	10	
3	15-109	B. Nithish Reddy	2	4	6	8	10	12
4	15-112	D. Venkata Sai Vamsi	0	2	4	6	8	10
5	15-114	G. Mahesh Yadav	0	0	2	2	4	6
6	15-116	G. Nagaraju	0	2	4	6	8	10
7	15-119	K. Prudhviraj	0	2	4	6	6	8
8	15-121	K. Anvesh	2	4	6	8	10	12
9	15-125	M. Sombhagya	0	2	4	4	6	8
10	15-126	M. Bharath Reddy	2	4	6	8	10	12
11	15-130	Md. Shasukh	2	4	4	6	6	8
12	15-131	Md. Shazeel	2	2	4	4	6	8
13	15-132	Md. Ashhad	0	2	4	6	8	10
14	15-136	Md. Awaiz	0	0	0	2	4	6
15	15-137	Md. Awaiz Fuzam Qureshi	2	4	4	6	8	10
16	15-138	Md. Sohail Nouhad.	0	2	2	4	6	8
17	15-139	M. Rahul	2	4	6	8	10	12
18	15-142	P. Sandeep Kumar	2	2	4	6	8	10
19	15-144	P. Lokesh	2	4	6	8	10	12
20	15-145	Ravi Naik	2	2	4	4	6	8
21	15-146	V. Ravindra	2	4	6	8	10	12
22	15-147	S. Prizanka	2	2	2	4	4	4
23	15-148	Saad Ali Khan	0	2	4	6	6	8
24	15-149	Sarfraz Ahmad	0	2	4	6	6	8
25	15-150	Shaik Ahmad Azeel	2	2	4	6	8	8
26	15-151	Shekh Arman Ali	0	2	2	4	6	8
27	15-152	S. Shashidhar Reddy	2	2	4	4	6	8
28	15-154	Syed Sufazsama	2	4	6	8	10	12
29	15-157	T. Gusal	2	2	4	6	8	10
30	15-158	T. Sai Ramchand	2	4	6	8	8	10
31	15-159	Tarun Marde	0	2	4	4	6	8
32	15-161	V. Ram Prasad	2	4	6	8	10	10
33	15-163	V. Ashok Reddy	2	4	6	8	10	12
01	14-102	Gayaga	2	2	4	6	8	10
02	14-112	Chello Guria	0	0	0	2	4	6
03	14-120	Gulam Masheer	2	4	6	8	10	12

Signature of the Lecturer :

(Handwritten signatures)

		01	01	02	02	02	02	03	03
		20	22	3	17	24	26	3	10
		7	8	9	10	11	12	13	14
14	16	16	18	20	22	24	26		
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14	16	18	20	22	24	26	28		
14	16	18	20	22	24	26	28		

SUBJECT WISE ATTENDANCE For Subject : _____ Class : _____ Semester : _____

Sl. No.	Roll (H.T.) Number	Name of the Student	Month						Date														
			12	12	12	12	1	1	1	1	2	2	2	2	3	3	3						
			9	16	23	30	6	8	20	27	3	10	17	24	31	7	14	21					
			Lecture No.																				
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15						
11-121	G. Sai Kyan	2	4	6	8	8	8	10	12	14	14	16	16	18	20	22							
126	Jomya Daji	0	2	2	4	4	6	8	10	12	14	16	18	20	22	24							
129	K. Yogeshwar Rao	2	2	4	6	8	10	12	12	14	14	14	16	18	20	22							
132	K. Yashwanth	2	2	4	6	6	8	10	12	12	14	16	18	20	22	24							
133	Minhajuddin	2	4	6	6	8	10	12	14	16	18	20	22	24	26	28							
135	Kochang Iino	0	2	2	4	4	6	8	10	12	14	16	18	20	22	24							
137	K. Mukesh	0	0	0	0	2	4	6	8	10	12	14	16	18	20	22							
140	lichu tatum	2	4	6	8	10	10	10	10	12	14	16	18	20	22	24							
142	lokam Kishak	0	2	2	4	4	6	8	10	12	14	16	16	18	20	22							
148	Mating Tayum	2	2	4	4	6	8	10	12	14	14	16	18	18	20	22							
153	Md. Umair ahmed	0	2	2	4	4	6	8	10	12	14	16	18	20	22	24							
155	Md. fazeeg	2	4	6	8	10	12	12	14	16	18	20	22	24	26	28							
156	Md. fazal kham	2	2	2	4	6	8	10	12	14	16	18	20	22	24	26							
161	Naseem jony	2	2	4	6	6	8	10	12	14	16	18	18	20	22	24							
171	Ratan Tunji	2	2	4	4	6	8	10	12	14	16	18	18	20	22	24							
174	Rungro y	2	2	4	6	8	10	12	14	16	18	20	22	24	26	28							
176	sharukh amezai	2	4	4	4	4	6	8	10	12	14	16	18	20	22	24							
179	sii soki	2	4	6	6	8	10	12	14	16	16	18	20	22	24	26							
180	syed abdul rizwan	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30							
186	Tadan Taho	2	4	4	6	6	8	10	12	14	16	18	20	22	24	26							
193	Vichothung	2	4	6	8	10	12	14	16	16	18	20	22	24	26	28							
194	Yoodak	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30							
195	Zakoor Hussain	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28							
197	Mohan Dehe	0	2	4	6	6	8	10	12	14	16	18	20	22	24	26							
16-101	A. Shiva kumar	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30							
102	B. Parshuram	2	4	6	8	10	12	14	16	18	20	22	24	26	26	28							
103	B. Keshav	0	2	4	4	6	8	10	12	14	16	18	20	22	24	26							
104	B. Prem kumar	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30							
105	B. Sai kumar	2	4	6	8	10	10	12	14	16	18	20	22	24	24	26							
106	A. Anil kumar	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28							
107	E. santhosh	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30							
108	G. Vinay kumar	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28							
109	K. Shiva kumar	2	4	6	8	10	12	14	16	18	18	20	22	24	26	28							
110	K. Shivudu	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30							
111	K. Pavan kumar	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30							
112	M. Madhu kumar	2	2	4	6	8	10	12	14	16	18	20	21	22	24	26							

Signature of the Lecturer : _____



KG REDDY

College of Engineering
& Technology

CERTIFICATE

Name: AENUGU SURYA PRAKASH REDDY

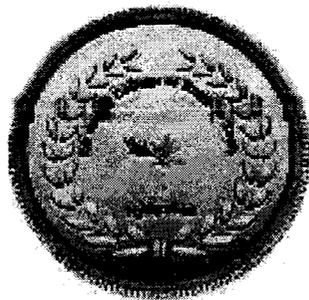
Roll No: 15QM1A0103

Has successfully completed the prescribed requirements for the award of value added course on "**GIS Software**" conducted by Civil Engineering held in month from December 2017 to March 2018 in the academic year 2017-2018.

Date:

M. R. Chary

Course Coordinator



[Signature]

Principal



KG REDDY
College of Engineering
& Technology

CERTIFICATE

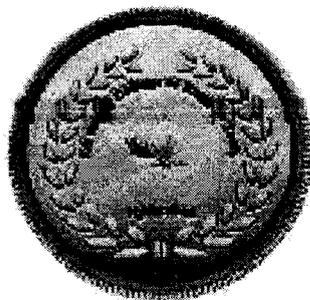
Name: AENUGU SURYA PRAKASH REDDY

Roll No: 15QM1A0103

Has successfully completed the prescribed requirements for the award of value added course on "**GIS Software**" conducted by Civil Engineering held in month from December 2017 to March 2018 in the academic year 2017-2018.

Date:

Course Coordinator



Principal