



SRI RAAJA RAAJAN
COLLEGE OF ENGINEERING AND TECHNOLOGY
(Approved by AICTE, New Delhi & Affiliated to Anna University)

146 /4B1, Amaravathi Village,
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DEPARTMENT OF CIVIL
ENGINEERING
NATIONAL CONFERENCE
ON REMOTE SENSING
AND GIS(NCRSGIS)
(2021-2022)

NCRSGIS-24.03.2022




PRINCIPAL
Sri Raaja Raajan College of Engg. & Tech.,
Amaravathipudur, Karaikudi - 630 301
Sivagangai Dist. Tamil Nadu



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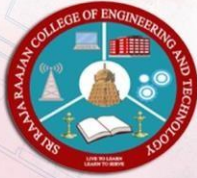
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DEPARTMENT OF CIVIL
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NATIONAL CONFERENCE -
(2021-2022)
POSTER




PRINCIPAL
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AMARAVATHIPUDUR, KARAIKUDI - 630 301



DEPARTMENT OF CIVIL ENGINEERING

Proudly Presents

NCRSAGIS 22

NATIONAL

CONFERENCE

MARCH 24

Paper Presentation

Poster Presentation

Project Expo

innovative submission
only related to
Remote Sensing & GIS
Sustainability Development
Infra structure

micrsagis22@gmail.com

Last date for submission

March 23

Registration Fees

Student Rs. 500

PG / Ph.D Scholar Rs. 750

Faculty Rs. 1000

Industrialist Rs. 1500

Pay on



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DEPARTMENT OF CIVIL
ENGINEERING
NATIONAL CONFERENCE -
(2021-2022)
BROCHURE




PRINCIPAL
Sri Raaja Raajan College of Engg. & Tech.,
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Sivagangai Dist. Tamil Nadu



NATIONAL CONFERENCE ON REMOTE SENSING AND GIS (NCRSAGIS'23)

NCRSAGIS'22

ABOUT SRRCT

SRI RAAJA RAAJAN COLLEGE OF ENGINEERING & TECHNOLOGY is a technical institution promoted by **Sri Muthu Mari Educational Trust**, established in the year 2010. The college is approved by All India Council of Technical Education (AICTE), New Delhi and is affiliated to Anna University, Chennai.

COURSES OFFERED

UG Programme

- B.E. Computer Science & Engineering
- B.E. Electronics & Communication Engineering
- B.E. Electrical & Electronics Engineering
- B.E. Mechanical Engineering
- B.E. Civil Engineering

PG Programme

- M.E. (Computer Science & Engineering)

ABOUT THE DEPARTMENT

The Department of CIVIL was started in the year 2010 and offers B.E degree programme. The departments has various laboratories and well-qualified and experienced faculty. The departments have MoU signed with leading companies.

ABOUT THE COURSE

- The future of Civil engineering is expected to be revolutionized by the new technologies including design software, GPS, GIS systems and other latest technical expertise in varied fields.
- Technology will continue to make important changes in the application of civil engineering, including the rapid progress in the use of 3-D and 4-D design tools.

COURSE CONTENT

- Remote Sensing is a technology to gather information and analyzing an object or phenomenon without making any physical contact.
- This technology is used in numerous fields like geography, hydrology, ecology, oceanography, Glaciology, geology.

RESOURCE PERSONS

- **Dr. M. Muthukumar M.Sc., M.Tech., Ph.D.,** Assistant Professor, The Gandhigram Rural Institute Dindigul.
- **Prof.Dr.C.Sivanesan M.E;Ph.D.,** Head of the Department., Department of Civil Engineering, ACGCET
- **Dr.C.R.PARAMASIVAM M.Sc.,M.Tech.,Ph.D,** Assistant Professor, Blue Hora University, Ethiopia

NATIONAL CONFERENCE on REMOTE SENSING AND GIS **NCRSAGIS'22**



Organized by

DEPARTMENT OF CIVIL ENGINEERING

24.03.2022

SRI RAAJA RAAJAN COLLEGE OF ENGINEERING & TECHNOLOGY
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Tamil Nadu, India.

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Dr.S. Subbiah
Former Vice-Chancellor, Alagappa University,
Karaikudi

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Dr.A.L MAYILVAHANAN M.E., Ph.D,
Principal,
SRI RAAJA RAAJAN COLLEGE OF
ENGINEERING & TECHNOLOGY

CONVENER

Divya S
Assistant professor
Department of Civil Engineering,
SRI RAAJA RAAJAN COLLEGE OF
ENGINEERING AND TECHNOLOGY,
Amaravadipudur (PO),
Karaikudi-630301
Tamil Nadu, India

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Mrs. Abinaya C K
Assistant Professor's,
Department of Civil Engineering,
SRI RAAJA RAAJAN COLLEGE OF
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Amaravadipudur (PO),
Karaikudi-630301
Tamil Nadu, India

REGISTRATION

Students (UG): Rs.500 /-
Research Scholars/ PG: Rs.750/-
Faculty: Rs.1000/-
Industrialist: Rs. 1500

Last Date for Registration: 22.01.2023

Intimation of selection: Through Email ID

REGISTRATION FORM NATIONAL CONFERENCE

ON

REMOTE SENSING AND GIS

ORGANISED BY

CIVIL ENGINEERING DEPARTMENT

24.03.2022

Name :
Designation :
Institution :
Male/Female :
Educational Qualifications :
Experience :
Mailing Address :
Phone :
Fax :
Email :
Accommodation required : Yes/ No
Details of Registration fee :
DD No. :
Dated :
Drawn on :

Signature of Applicant



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DEPARTMENT OF CIVIL
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NATIONAL CONFERENCE -
(2021-2022)
SOUVENIR




PRINCIPAL
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SRI RAAJA RAAJAN COLLEGE OF ENGINEERING AND TECHNOLOGY

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Amaravathiputhur, Karaikudi - 630301*

NATIONAL CONFERENCE

On

Remote Sensing and GIS

NCRSAGIS'22

24th March 2022

SOUVENIR



Organized by

DEPARTMENT OF CIVIL ENGINEERING

*Our Tribute to the Greatest
Engineering Father of the Nation*



*Bharat Ratna
SIR. Mokshagundam Visvesvaraya
1860-1962*

INTRODUCTION

COLLEGE OVERVIEW

Sri Raaja Raajan College of Engineering and Technology was established in 2010 by Sri Muthumari Charitable and Educational Trust with a view to create an Engineering Degree Institute to fulfill the long felt public need of an Institute of Excellence in Karaikudi.

The campus is committed to provide quality, cost effective education and training in Engineering and Technology. Its motive is to enable students to stand on their own feet and to equip them to contribute to the Technological, Economic and Social development of India. The college pursues excellence in providing training to develop the sense of professional responsibility, social and cultural awareness and set the students on the path to leadership

ABOUT THE DEVELOPMENT

The department with its eminent and experienced faculty has been greatly successful in bringing out talents of young minds, moulding them and guiding them in the right path. Practical hands on training during the course of study are greatly stressed, so that students acquire knowledge about the industry and its growing needs.

VISION OF THE DEPARTMENT

To strive hard to produce preferred partners to the society and construction industry to achieve social and economic development and make our country infra structurally sound by imparting the students high class education and technical knowledge along with ethical values, which not only makes them sound professionals but also good citizens of India

MESSAGE



I am glad to know that the Department of Civil Engineering of Sri Raaja Raajan College of Engineering and Technology, Karaikudi, is organizing a National Conference on the title **Remote sensing and GIS** on 24th March 2022. I feel that this National Conference would help students to have interactions with experts in the field of Civil Engineering to enhance their knowledge.

My best wishes to all the staff and students who have taken efforts to make this National Conference a successful event.

**Dr.S.Subbiah, Ph.D.,
Former Vice Chancellor,
Alagappa University,
Karaikudi**

MESSAGE



It gives me immense pleasure to be a part of this hosting team of National Conference on Remote Sensing and GIS. The conference intends to bring together scientists, engineers and practitioners from different disciplines to discuss concerns related to various computation techniques in science and technology.

I take this opportunity to welcome all the delegates of the conference. On behalf of whole NCRSAGIS- 2022 team, I would like to thank all the authors, sponsors and keynote speakers for their support and co-operation.

Dr. MAYILVAHANAN. AL
Principal
SRRCET, Karaikudi

MESSAGE



I am extremely happy to know that National Conference on the title **Remote Sensing and GIS** is organized on 24th March 2022. I wish to congratulate the Civil Engineering Department for taking the effort in organizing the Conference.

I am confident that this event will help the students to update themselves on the latest happenings in their field of interest.

My best wishes for the International Conference

Dr.M.Muthukumar
Director –In-Charge
The Gandhigram Rural Institute

MESSAGE



I am happy to note that the Department of Civil engineering is organizing a National Conference on Remote Sensing and GIS on 24th March, 2022

I am sure that this National conference will give an opportunity to the students of Civil Engineering to interact with other students and faculty members, thereby furthering their knowledge.

I congratulate all the students and faculty members of the department in organizing this useful academic program.

Dr.C.Sivanesan
Head of the Department
Civil Engineering
ACGCET,Karaikudi

MESSAGE



My warm wishes and greetings to all of you,

The National Conference was conceived about a month ago. We are pleased to note that the response was highly encouraging from different institutions. I thank each of the participants personally for their sincere response.

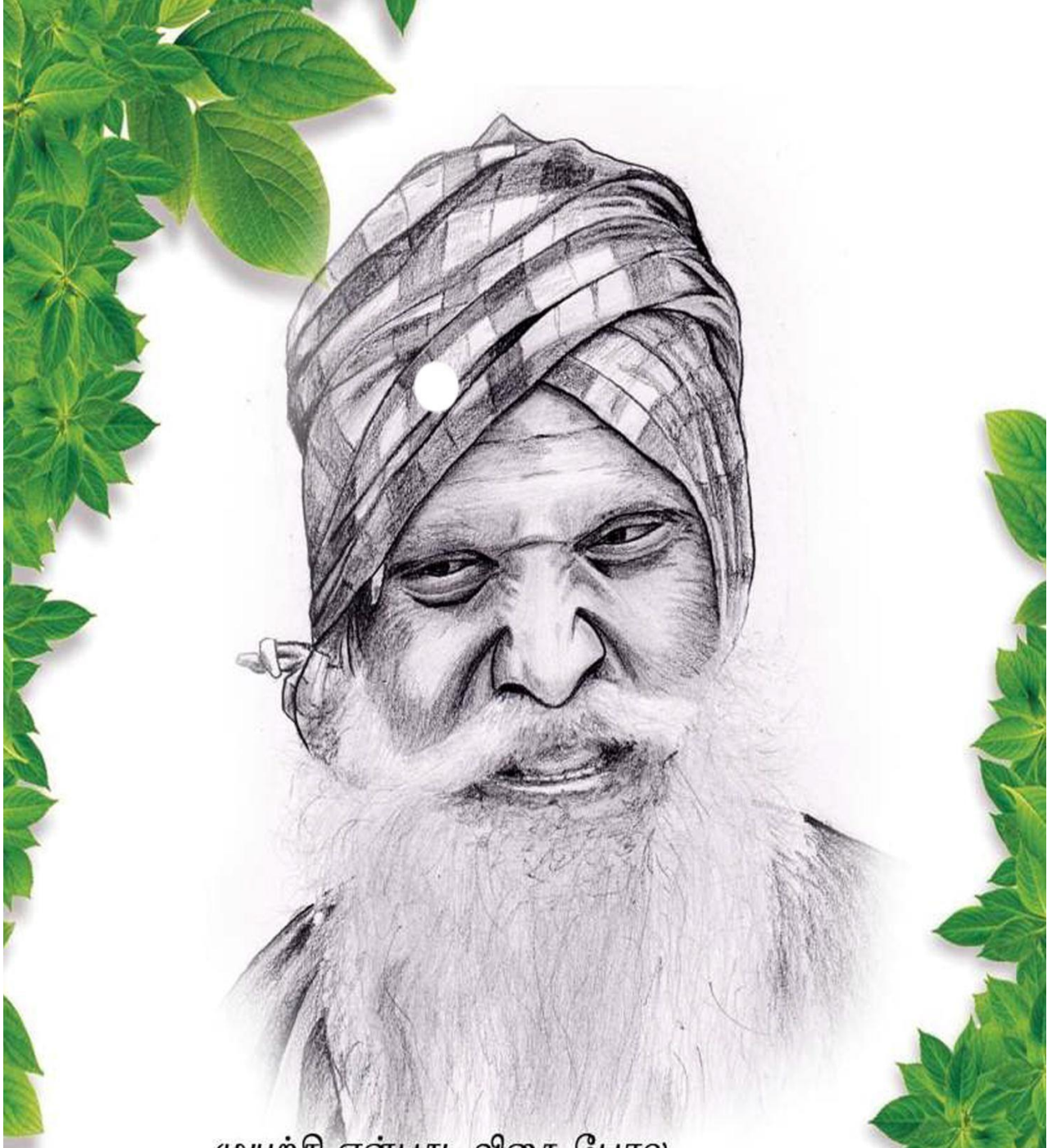
I hope that the conference will help all the students to exchange their technical views and information in the field of Engineering. Kindly utilize this event to enhance the knowledge. I wish you all the best in all your endeavors in future.

I convey my sincere thanks to Our Advisor, **“Dr.S.Subbiah., Principal
Dr.A.Elango, M.E.,Ph.D.,**

I whole heartedly thank all the staff members and students of Civil Engineering for their cooperation and support for making this conference as a Special event.

“Science can amuse and fascinate us all, but it is engineering that changes the world.” “The engineer has been, and is, a maker of history.” “Scientists study the world as it is; engineers create the world that has never been.” “The way to succeed is to double your failure rate.

**Mr.I.Rasheed Khan , M.E.,
Head of the Department
CIVIL ENGINEERING**

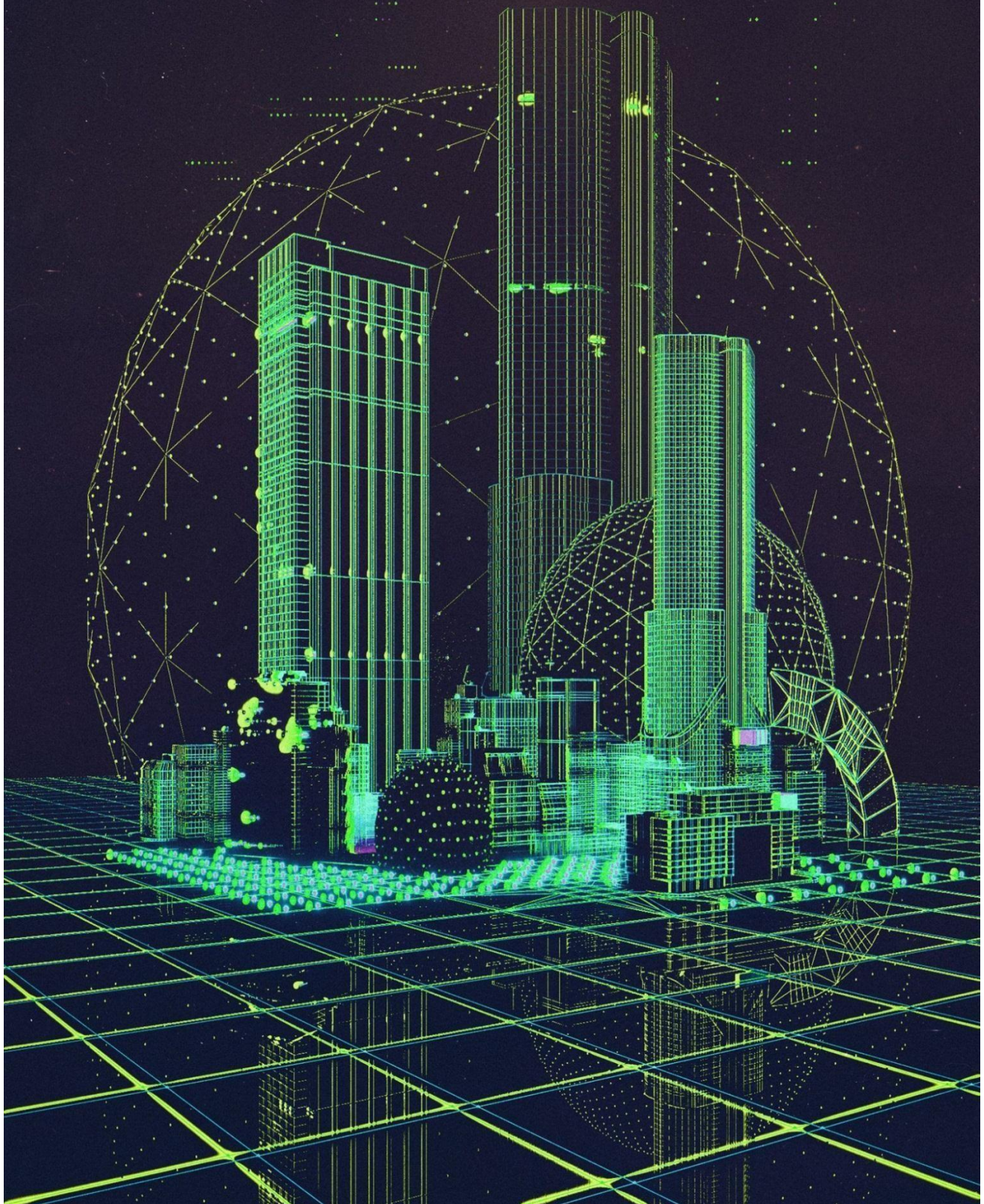


முயற்சி என்பது விதை போல...
அதை விதைத்துக் கொண்டே இரு...
முளைத்தால் மரம் ... இல்லையென்றால் - அது
மண்ணிற்கு உரம்

கே. டி. சி. சி. சி. சி.



Proceeding of Technical Papers



Bioaccumulation of metal level and health risk assessment on the shells of commercially important gastropods *Lambis lambis* and *Murex tribulus*

Author Names: **Nigariga Pasumpon**, Asmita Adak, Rahul Varma and Sugumar Vasudevan

Affiliation: Department of Oceanography and Coastal Area Studies, Alagappa University,
Science Campus, Karaikudi 630 003. Tamil Nadu, India

Presenting Author Email ID: nigariga167@gmail.com

Corresponding Author Email ID: crustacealab@gmail.com

ABSTRACT

The present study represents, the accumulation of 17 metals: Al, Ar, B, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mn, Na, Ni, P, Pb and Zn in the shells of commercially important gastropods (*L. lambis* and *M. tribulus*) utilizing inductively coupled plasma-mass spectroscopy (ICP-MS). In *L. lambis* higher level of calcium ($2.23 \pm 0.7 \mu\text{g/g}$) and iron ($1.72 \pm 0.6 \mu\text{g/g}$) was found, with lower levels of cobalt ($0.77 \pm 0.8 \mu\text{g/g}$) and zinc ($0.49 \pm 0.8 \mu\text{g/g}$) and in *M. tribulus*, a higher level of calcium ($2.07 \pm 0.5 \mu\text{g/g}$) and aluminium ($1.36 \pm 0.6 \mu\text{g/g}$) was found, with lower levels of cobalt ($0.53 \pm 0.7 \mu\text{g/g}$) and manganese ($0.42 \pm 0.6 \mu\text{g/g}$) was identified. The samples' surface topography and heavy metal composition were determined using a Scanning Electron Microscope and Energy Dispersive X-ray analysis (SEM-EDX). Environmental influences significantly affect the absorption of heavy metals on the shells, as evidenced by the considerable involvement of lifeforms biocontrol in the biomineralization process.

Keywords

Metal Pollution, Biomonitoring, Bioindicator, Human Consumption Risk, ICP-MS

Groundwater resources and management for AHP methods to assess groundwater potential zone in Sivagangai and Manamadurai Block, Sivagangai District, Tamil Nadu, India

Agastheeswaran V¹, Udayaganesan.P², Dhivya.S³

^{1,2} *Department of Geology, Alagappa Govt Arts College, Alagappa University, Karaikudi.*

³ *Dept of Civil Engineering, Sri Raaja Raajan College of Engineering and Technology, Amaravathipurur, Karaikudi,*

Email: geoagas@gmail.com¹; udayaganesan@yahoo.com²; divyadevi1991@gmail.com³;

ABSTRACT

Groundwater is an important resource for water use in Sivagangai and Manamadurai block, Sivagangai district TamilNadu, India. In arid and semiarid climate condition to intense withdrawals of groundwater have become the main environmental issues for public concern. In this study, an integrated remote sensing built a powerful tool with GIS-AHP domain will depict the groundwater potential zone identification. Thematic layers for the Drainage, Drainage density, Lineament, Lineament density, Geomorphology, Land use/ Land cover, Soil and Geology parameters were prepared, classified, weighted and integrated in a GIS environment by the means of Boolean and AHP techniques. The results of the study indicate that about 28% of the study area is considered as good and 55 % moderately and 17% poor for groundwater recharge. From the viewpoint of water resources management, these techniques will sustain groundwater recharge and proper management is recommended in the study area.

Keywords: Remote Sensing, GIS, Groundwater, Sivaganga and Geomorphology

APPLICATION OF COLLECTED WASTEWATER (TREATED) FROM VEHICLE MANUFACTURING INDUSTRY TO DETERMINE GROWTH RATE OF SHORT DURATION CROP

R.Hariharan

M.E. Environmental Engineering Pandian Saraswathi Yadav Engineering College

ABSTRACT

The use of wastewater for irrigation is increasingly being considered as a technical solution to minimize soil degradation and to restore nutrient content of soils. The aim of this study was to test if wastewater irrigation could improve yield of plants. A field experiment going to conduct investigate the effects of irrigation with ground and preliminary and primary treated wastewater of Vehicle Manufacturing industry on macro and micronutrient distribution within the soil profile, yield and mineral content of Okra or Okro (*Abelmoschus esculentus*, Lady's fingers) plants grown on an Omnibus group of Soil (Red Soil).

Application of wastewater may be increase soil salinity, organic matter, exchangeable Na, K, Ca, Mg, plant available phosphorus and microelement, and decreased soil pH when it is not treated effluent. The study being highest yield, macro and micronutrient uptake of Okra or Okro (*Abelmoschus esculentus*, Lady's fingers) comparing with the ground and preliminary and primary treated wastewater of Vehicle Manufacturing Industry. Indeed, in recent years, wastewater recycling in agriculture has gained importance as component of agriculture plays an important role in suburban world agriculture irrigation in different parts of the world, especially in countries that are short of water, since it contains nutrients that can be used by crops. This field experiment will be helps in water scarcity area where the demand water is more for drinking purpose. This study analysed the physical and chemical parameters of Vehicle Manufacturing industry effluent and groundwater. Also, the experimental study was conducted to test the soil quality and observed variation of nutrients contents like N, P, K, Fe, Mn, Zn, Cu, Calcium Carbonate, EC and pH during the duration of crop growth. Here the project is aimed to analyse treated wastewater of Vehicle Manufacturing industry is able to use in the agricultural land by comparing the yield of crop and with the groundwater. It can be concluded that untreated wastewater can be used confidently, in the short term, in agricultural land, while primary treated wastewater can be used in sustainable agriculture in the long term.

Assessment of ground water quality using GIS for supplemental irrigation of semi dry rice cultivating tracts of Ramanathapuram district

Dr. R.Dhanasekara Pandian and Mr.K.Maheshwaran

Sethu Bhaskara Agricultural College and Research Foundation, Kalam Kavi
Gramam, Visalayankottai, Karaikudi-630 360

ABSTRACT

A study was carried out in the semi dry rice cultivating tracts of Ramanathapuram district using GIS technique to characterize the physico-chemical properties of groundwater samples which include pH, EC, SAR, RSC and SSP. To assess the suitability of underground water, 70 ground water samples were collected from major semi dry rice cultivating tract of Paramakudi and Ramanathapuram block and their quality was assessed using CSSRI, criteria. Of the 70 ground water samples, 5 were good (3.2%), 36 samples were marginally saline (53.3%), 25 were high SAR saline (37.5%) and 4 were alkali (5.5%) category. The good water samples recorded the mean value of 1.8 dSm⁻¹, 1.1 meq/l and 5.1 of EC, RSC and SAR respectively. In high SAR saline category of the 25 samples, the mean values were 3 dSm⁻¹, 0.4 meq/l and 13.5 of EC, RSC and SAR respectively. The alkali category mean values were 2.9 dSm⁻¹, 4.6 meq/l and 8.3 of EC, RSC and SAR respectively. In Paramakudi block, 7.5 per cent were good, 80 per cent were marginally saline, 5 per cent were high SAR saline and 7.5 were alkali in nature. Hence both this good and marginally saline quality of ground water can be safely used for supplemental irrigation. In Ramanathapuram block, 26.6 per cent were marginally saline, 70 per cent were high SAR saline, and 3.4 per cent were alkali in nature respectively. Hence in Ramanathapuram block, 73.4 per cent of ground water samples comprising high SAR saline and alkali which cannot be used as supplemental irrigation.

Note: CSSRI-Central Soil Salinity Research Centre, SAR-Sodium Absorption Ratio, RSC-Residual Sodium Carbonate, SSP-Soluble Sodium Percentage

Identification of groundwater potential and potable zones using geophysical indicators and GIS techniques in Pudukkottai district Tamilnadu.

Mr.A.Muruganantham

Department of Geology, Alagappa University, Karaikudi

ABSTRACT

The present study was conducted to evaluate the groundwater potential and potable zones by 45 Vertical Electrical Soundings (VES). This resistivity survey was conducted in Pudukkottai district Tamilnadu using Schlumberger configuration and GIS methods. The study area Pudukkottai district has an undulated topography with a gentle slope towards east-north east along the coast. The purpose of the research is delineated potential aquifers and delineating the subsurface fresh water in the study area. The conventional curve matching and the computer interpretation methods were used to interpret the resistivity data. The true resistivity range of the first type of aquifer is 0.37-2.79 Ωm whereas the true resistivity range of the second type of the aquifer is 43.4-47.6 Ωm . Thus, geophysical indicators, namely longitudinal unit conductance (S), transverse unit resistance (T), and average longitudinal resistivity (Rs), were calculated for identifying fresh waters and potable zones. Spatial distributions of S, T, and Rs reflected widely varying ranges for the fresh water zones. Interpretation of the data reveals that the polluted zones and the potential zones were demarked in the study area. Since, Degenerate the groundwater quality, water management plans will be needed to solve the water scarcity and save the human life.

Keywords: VES. Schlumberger. GIS. Potential zone. Potable zone. Identification.

Identification and Controlling factor of Groundwater Potential Zone exhausting with AHP method in Madurai, Tamil Nadu.

Mr.R.Muthuramalingam

Department of Geology, Alagappa University, Karaikudi

ABSTRACT

Groundwater is an essential role for socioeconomic expansion of the study area. Surface water penetrate into the ground depends upon various factors on soil pores, fold, fracture, fault and joint contributes to groundwater. Groundwater is an important resource for drinking and irrigation uses in the Madurai, Tamilnadu, India. So that the identification of the Groundwater potential zone is very Important for the study area. The present study focuses on the exploration of groundwater potential zones based on geospatial technologies. Different thematic layers such as Geology, Geomorphology, Soil, Land Use & land Cover, Drainage and lineament density, water level was derived from suitable sources. Arid and semiarid region condition to intense withdrawals of groundwater has become the main environmental issues for public concern. In this study, an integrated remote sensing built a powerful tool with GIS-AHP (Analytic Hierarchy Process) method will depict the groundwater potential zone identification. Thematic layers for the Geology, Geomorphology, Soil, Drainage, Drainage density, Lineament, Lineament density, Slope, water level and lithological parameters were prepared, classified, weighted and integrated in a GIS environment by the means of Boolean and AHP techniques. The main theme of this work is to illuminate through methods to measure the subsurface formations.

Groundwater potential zones (GWPZ) based on the multi criteria analysis in GIS enabled with AHP. The results of the study indicate that about 38 % of the study area is considered as Very good, 43 % Good and 19% poor for groundwater recharge. The groundwater potential zone was authenticated by the groundwater level map. Identification of the appropriate locations for artificial recharge was done by the groundwater potential map. Artificial recharging structures such as filtration ponds recharge shaft and farm ponds have to be applied to improve the water level in the region. The result of this study builds up the knowledge of the GIS analysis for groundwater vulnerability and also allows legislators in this drought-prone area to manage the water supplies.

Keywords: Groundwater potential zone. Satellite data. weighted overlay analysis thematic layers. GIS. AHP method.

**Partial Replacement Of Fine Aggregate In Concrete Using Ecofriendly Plastic Sand
Aggregate**

Mr.S.Anbumani, Mr.Arunkumar, Mr.Jayaseelan

Department of Civil Engineering, Kings College of Engineering

ABSTRACT

Plastics have become inseparable and integral part of our lives ,the amount of plastics consumed annually has been growing steadily .the plastic bottles cannot be just disposed of by dumping or burning ,as they can produce uncontrolled fire or contaminate the soil and vegetation ,large quantities of plastic waste and low biodegradability of these quantities negatively affect the environment

**Experimental Project on Concrete - Partial
Replacement of Cement by Prosopis Juliflora Ash**

G.Balaji, V.Abimanyu, P.Prabhu , Guided by Mrs.Kashthuri.A/P Civil Dept

Pandian Saraswathi Yadav Engineering College

ABSTRACT

In order to save the environment and to save the resources we have come up with using the Prosopis juliflora(Semai Karuvelam in Tamil) ash as the partial replacement of cement. Cement will produce equal amount of greenhouse gas (co₂) which increase the global warming. As the amount of cement is reduced greenhouse gases also reduced. Utilization of Juliflora ash as a partial substitution for cement is one of the promising method to increase the strength and thermal insulation for cement blocks. The strength parameters (compressive strength, split tensile strength and flexural strength) of concrete with blended Prosopis juliflora cement are evaluated.



Student's Column Articles

SKY BUS METRO

VIGNESH.G-THIRD YEAR CIVIL

ABSTRACT

Transportation is by and large a major indicator of development of an area but now-a-days it is seemingly becoming a factor of concern in metros. Enormous increase in the population concentration driven by the thirst for exponential development lead to a mushroom growth of major cities.

The most precious asset in growing urban areas is the land. Allocation to residential and commercial purposes put heavy pressures on land for public use like parks and open spaces apart from very important and critical roadways. Hardly 6% to a maximum of 18% of land in cities form roadways. The most precious asset in growing urban areas is the land. As more and more people from different habitats try to converge on to the central business district, the road has no capacity to handle and congestions erupt.

Roads take one exactly to the point where one wants to go. In order to solve this problem a new transportation method known as SKY BUS has been introduced by the Konkan railway corporation.

INTRODUCTION

Allocation to residential and commercial purposes put heavy pressures on land for public use like parks and open spaces apart from very important and critical roadways. Hardly 6% and to a maximum of 18% of land in cities form roadways. The roadways once laid almost remain constant at best and may effectively reduce by uncontrolled encroachments.

The physical constraint of road area being constant, as population increases, naturally loads on roads increase. The new technological solution is provided in the form of Sky Bus Metro. The technologies used are: Well proven rail guided bogie system commonly used for normal railway system. Linear Induction Motor Technology or 3 phase AC asynchronous electrical motive units– well proven and widely adopted abroad. as well as in India.

Light weight coaches called `Sky Buses' which are suspended from bogies and travel below rail guides, the physics of which can be engineered very easily – shells of coaches and suspension links well proven.

Latest Pre-fabricated construction technologies, which save time and money resulting in easy execution of the project in busy urban areas without disturbing the existing traffic pattern. These structural engineering methods are well proven which do not have any project execution risk attached

SOLUTION

A befitting solution is one which

- ❖ Follows the existing roads- but does not take road space- and be as flexible as bus
- ❖ Have rail based mass transit capacity, same as existing rail metro
- ❖ Does not divide city while providing integration along its alignment
- ❖ Be derailment and collision proof- with no capsizing of coaches- so that there can never be loss of life
- ❖ Be free from vandalism
- ❖ Noise free and pollution-free
- ❖ Non-invasive -requiring the least amount of scarce land space- and not come in the way of development.

The major components of a sky bus metro are:

Sky way, Sky bogies, Sky coaches, Sky stations, Traverse arrangements at terminals

ADVANTAGES

- ❖ Fast Transportation
- ❖ No Land Acquisition Problems
- ❖ Only at terminal points, minimum amount of land of the order of 2000 to 4000sq.m of area will be required
- ❖ No Vandalism
- ❖ Fire Protection
- ❖ No capsizing
- ❖ Deep Penetration
- ❖ No Deaths
- ❖ Low Capital cost

- ❖ Lowest Operational cost
- ❖ No interference with normal road traffic
- ❖ Fast Clearance Capacity
- ❖ Luxury
- ❖ No Force Major
- ❖ No Pollution
- ❖ No traffic Jams
- ❖ Low Travel cost
- ❖ No waiting
- ❖ Comfort
- ❖ Tourism
- ❖ Easy Access
- ❖ Fast Execution

CONCLUSION

Sky Bus system not only redefines the urban mass transport for cities, but also provides for efficient auto-mated container delivery system point to point, following existing roads and brings down the cost of service while improving quality. With land being at premium, even for intra-city high speed 200 kmph system , Sky Bus provides excellent alternative for mass transport- being derailment free and safer than existing rail-based system.

BURJKHALIFA
DIVAKAR.K, ELAMUGIL.A-SECOND YEAR CIVIL

Burj khalifa in Dubai is currently the tallest building in the world at 828m (2,717ft). The construction began on 21 September 2004 Originally, the building was planned to a height of 560m, but during there designing, the design architect, Adrian Smith, felt that the uppermost section of the building did not culminate elegantly with the rest of the structure, so he sought and received approval to increase it to the current height (828m).

It has been stated that this change did not include any additional floors, which is fitting to make the crown more slender. According to the structural engineer, Bill Baker, the building's design incorporates cultural and historical elements particular to the region. The Y-shaped plan is ideal for residential and hotel usage, with the wings allowing maximum outward views and inward natural light.

The design architect, Adrian Smith, has said the flower Hymenocallis inspired the triple lobed footprint of the building. The tower is composed of three elements arranged around a central core. As the tower rises from the flat desert base, setbacks accurate an upward spiraling pattern, decreasing the cross section of the tower as it reaches towards the sky There are 27 terraces in the BurjKhalifa. The top of the central core is sculpted to form a finishing spire

To support the unprecedented height of the building, the engineers developed a new structural system called the buttressed core, which consists of a hexagonal core reinforced by three buttresses that form the 'Y'shape This structural system enables the building to support itself laterally and keeps it from twisting.

The spire of the Burj Khalifa is composed of more than 4,000 tonnes (4,400 short tons; 3,900 long tons) of structural steel. The central pinnacle pipe weighing 350 tonnes (390 short tons; 340 long tons) was constructed from inside the building and jacked to its full height of over 200m (660ft) using as trand jack system. The spiral so houses communication equipment's.

A high density, low permeability concrete was used in the foundations of BurjKhalifa. The cathodic protection system Cathodic protection(CP), which is a technique used to control the corrosion of a metal surface by making it the cathode of an electrochemical cell, is used to minimize any detrimental effects

from corrosive chemicals in the local groundwater. In May 2008, concrete was pumped to a then world record delivery height of 606m (1,988ft), the 156th floor.

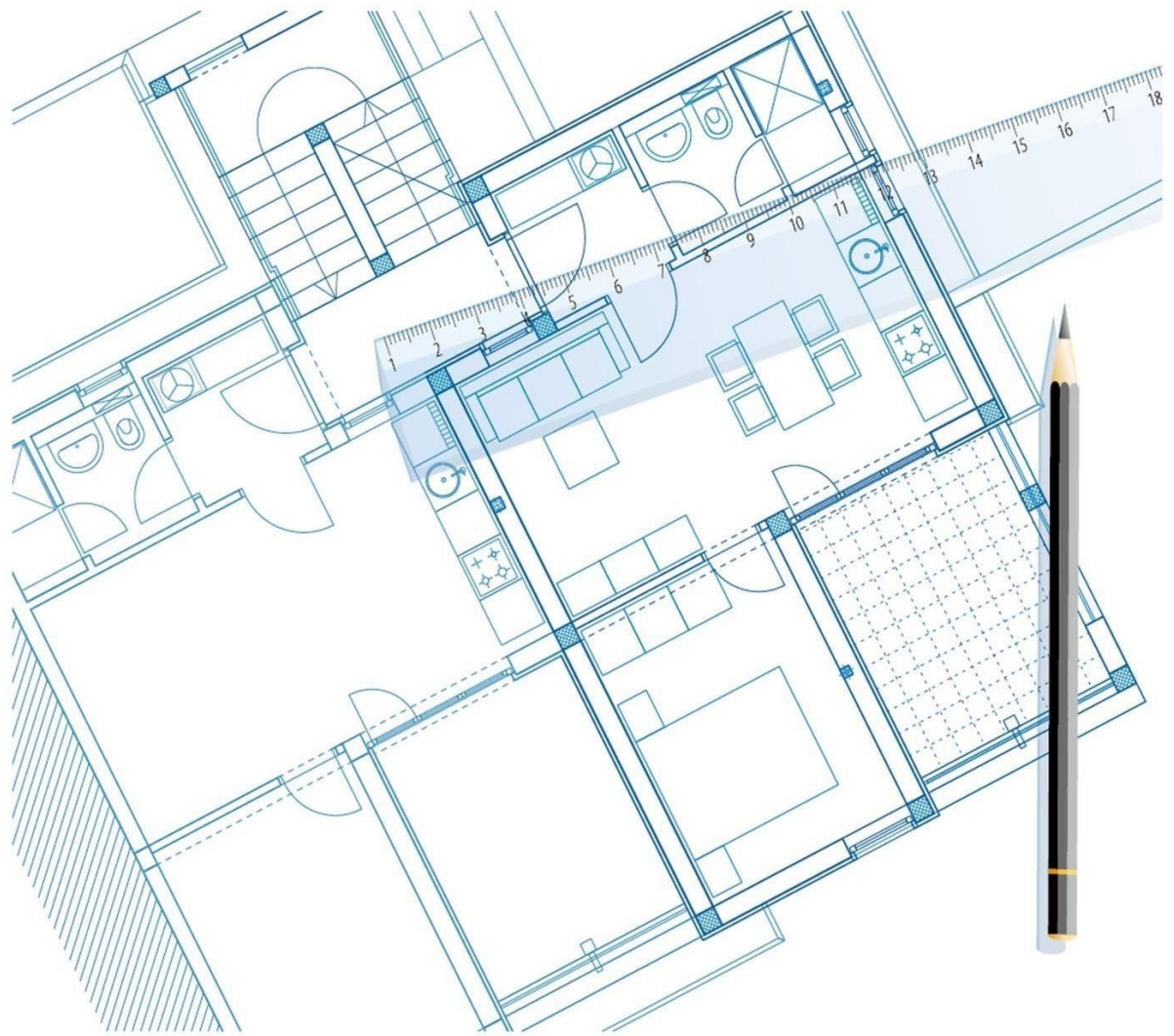
Three tower cranes were used during construction of the uppermost levels, each capable of lifting a 25-tonne load. The remaining structure above is constructed of lighter steel.

Special mixes of concrete were made to withstand the extreme pressures of the massive building weight; as is typical with forced concrete construction, each batch of concrete used waste to ensure it could withstand certain pressures.

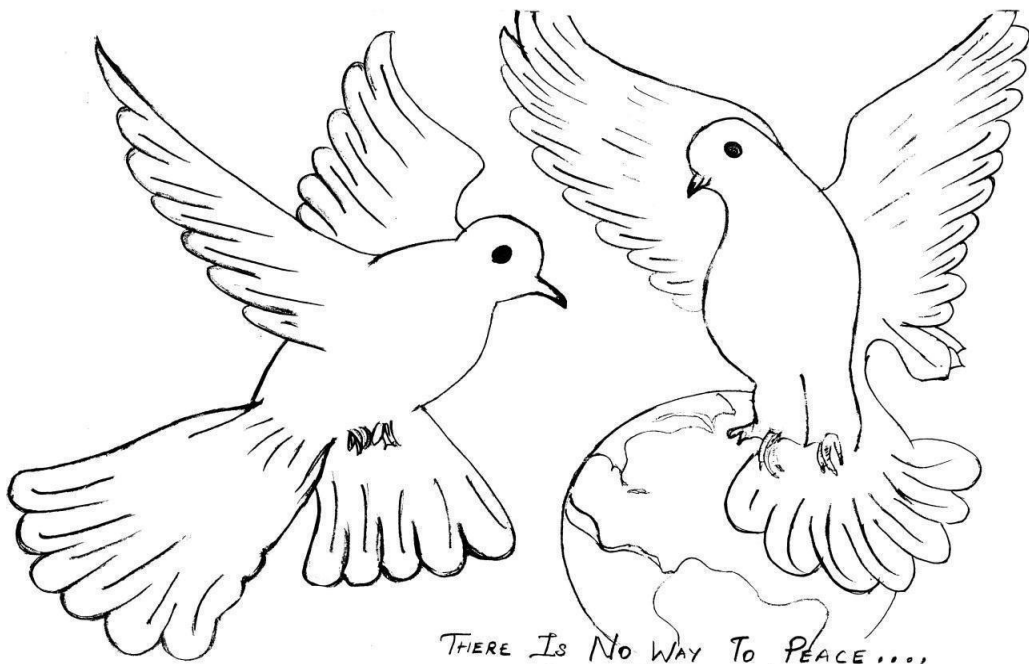
The consistency of the concrete used in the project was essential. It was difficult to create a concrete that could withstand both thousands of tonnes bearing down on it and the Persian Gulf temperatures that can reach 50°C (122°F).

To combat this problem, the concrete was not poured during the day. Instead, during the summer months ice was added to the mixture and it was poured at night, when the air is cooler and the humidity is higher.

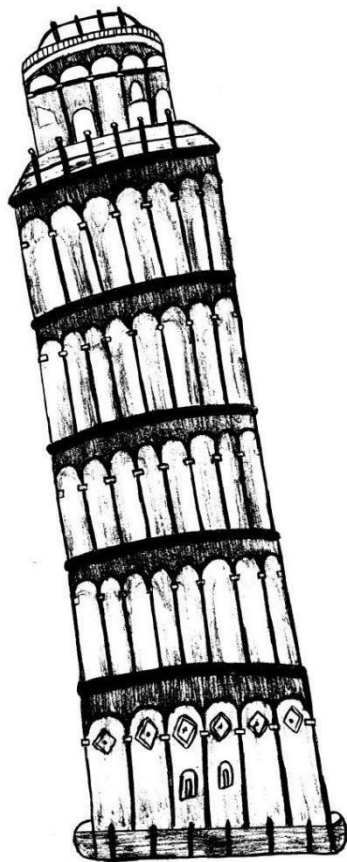
A cooler concrete mixture cure evenly throughout is therefore less likely to set too quickly and crack. Any significant cracks could have put the entire project in jeopardy.



Drawings.....



THERE IS NO WAY TO PEACE....
PEACE IS THE WAY...

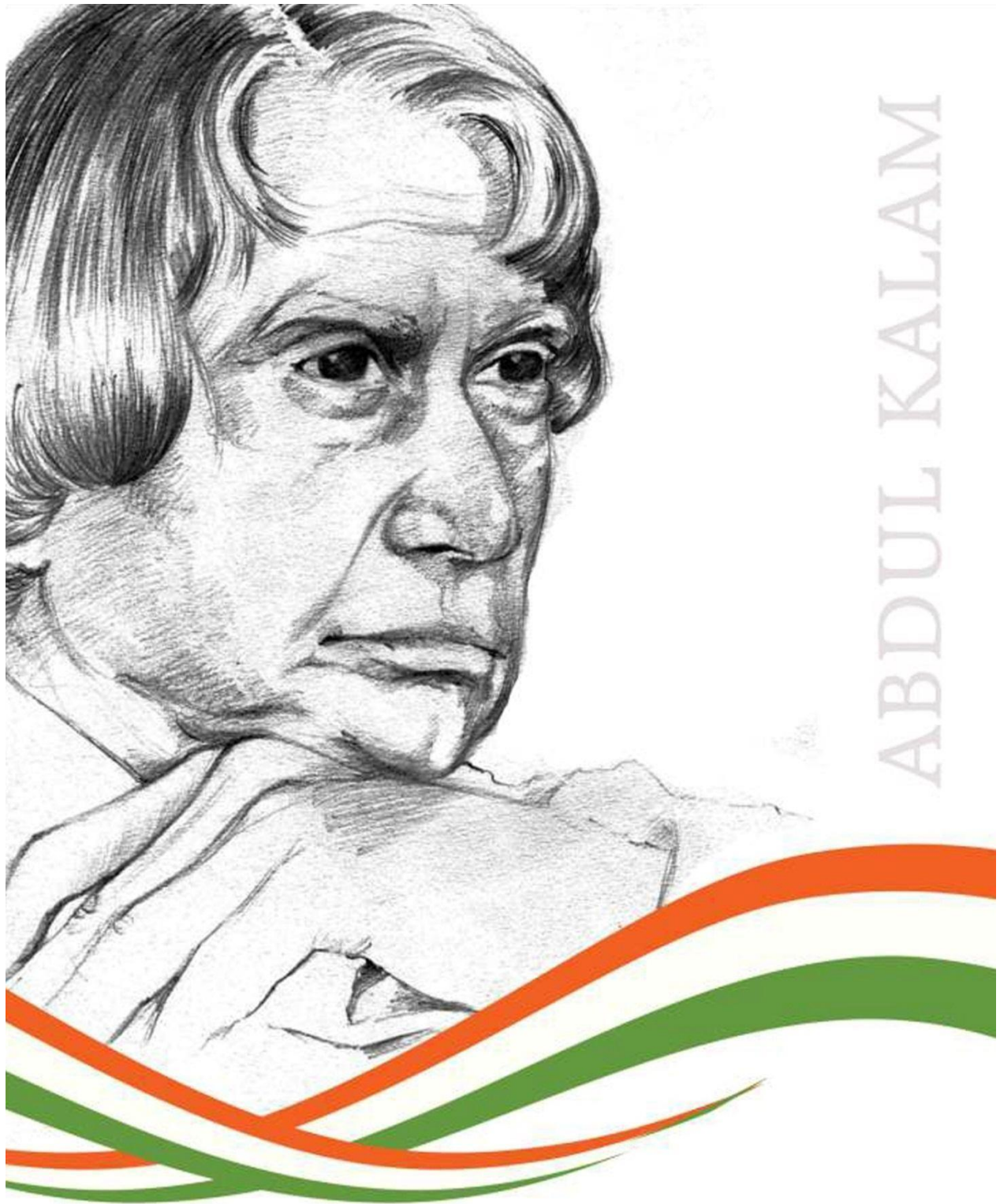


**ABDUL AJEES
THIRD YEAR CIVIL**

3D DIAGRAM

DESIGNER: YASIN.S THIRD YEAR CIVIL

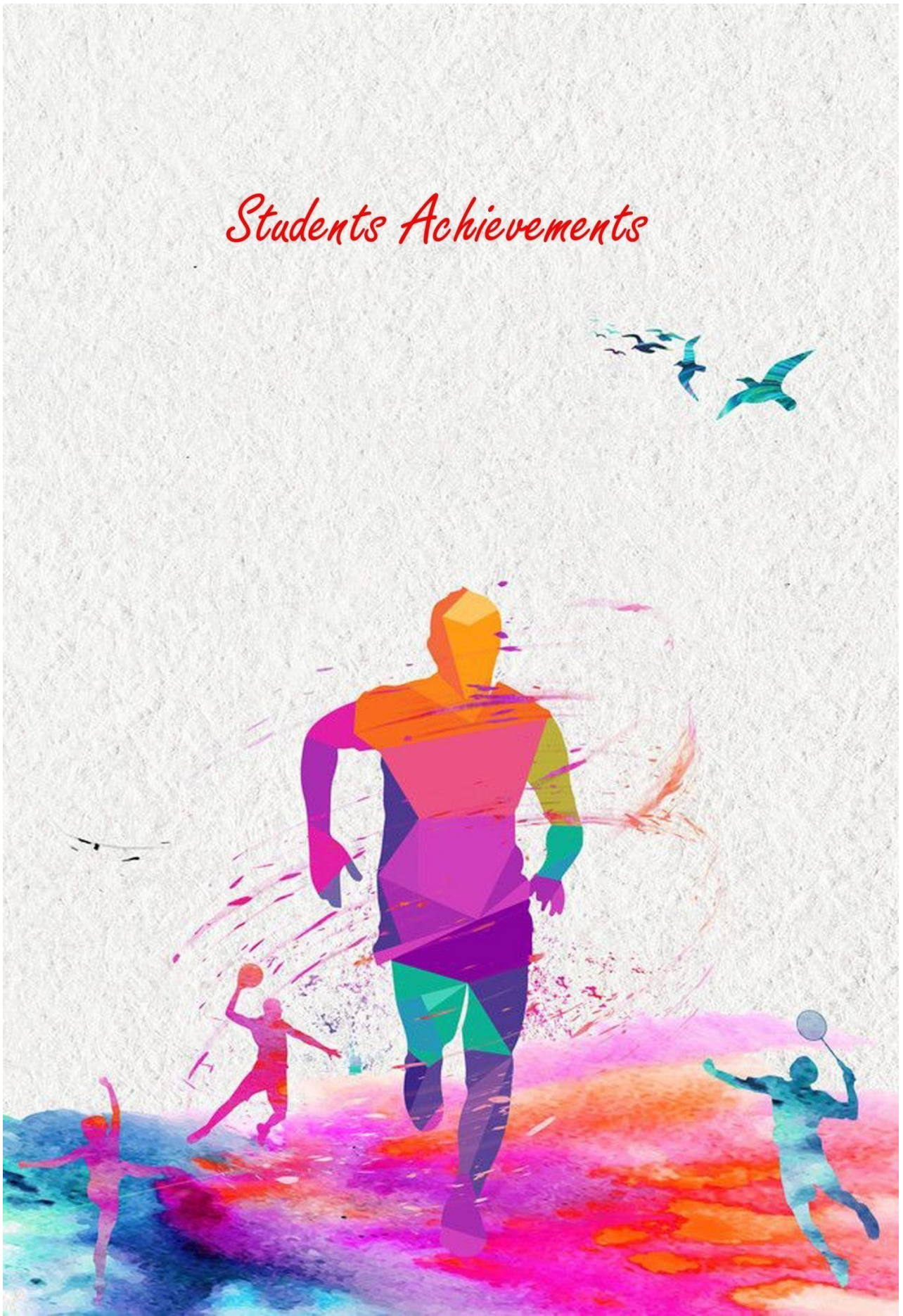




ABDUL KALAM

DON'T READ SUCCESS STORIES,
YOU WILL GET ONLY MESSAGE..!
READ FAILURE STORIES,
YOU WILL GET SOME IDEAS TO GET SUCCESS..

Students Achievements



THIRD year

VOLLEYBALL

K.Suthan, (Captain in SRR CET team)



Runner up in zonal meet at Velammal college

CRICKET

Inter college Winner held on Thiagarajar college of Engineering

K.Senthil (Vice captain in SRR CET), Yasin.S, Gunasekaran.A

KABADDI

Manimaran.N -Winner at zonal meet



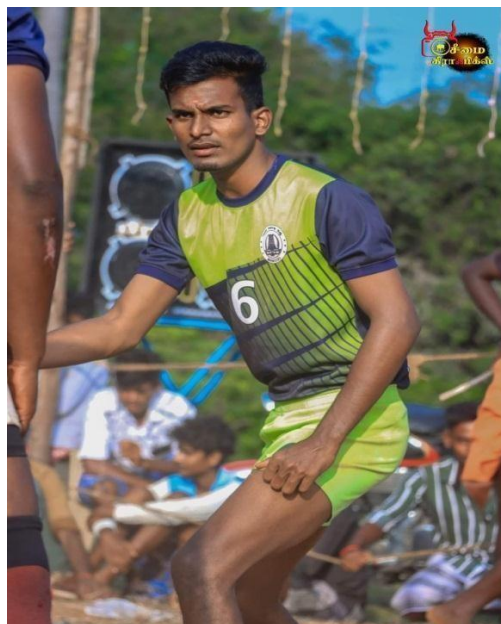
SECOND YEAR

KABADDI

Bharathi ganeshan.K – Runner Up at state level competition



Guruprasath.- Runner Up at state level competition



EX FINAL YEAR

ROLL BALL

SR.Vaithish Kumar – 2019 World cup winner





EDUCATION
IS THE MOST
POWERFUL
WEAPON
WHICH YOU
CAN USE TO
CHANGE
THE WORLD

Nelson Mandela....



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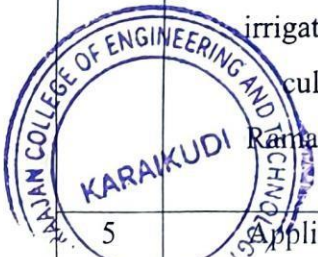



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NATIONAL CONFERENCE ON REMOTE SENSING & GIS 2022

Received Paper Details

S.NO	TITLE	AUTHOR NAME	COLLEGE	DESIGNATION
1	Bioaccumulation of metal level and health risk assessment on the shells of commercially important gastropods Lambis lambis and Murex tribulus	Mrs.Nigariga Pasumpon	Alagappa University, Science Campus, Karaikudi 630 003. Tamil Nadu, India	PG scholar
2	Identification of groundwater potential and potable zones using geophysical indicators and GIS techniques in Pudukkottai district Tamilnadu.	Mr.A.Muruganatham	Alagappa University, Karaikudi	PG scholar
3	Identification and Controlling factor of Groundwater Potential Zone exhausting with AHP method in Madurai, Tamil Nadu.	Mr.R.Muthuramalingam	Alagappa University, Karaikudi	PG scholar
4	Assessment of ground water quality using GIS for supplemental irrigation of semi dry rice cultivating tracts of Ramanathapuram district	Dr. R.Dhanasekara Pandian Mr.K.Maheshwaran	Sethu Bhaskara Agricultural College and Research Foundation, Kalam Kavi Gramam, Visalayankottai, Karaikudi-630 360	PG scholar
5	Application of Collected Wastewater (Treated) From	Mr .R.Hariharan	Pandian Saraswathi Yadav Engineering College	Student



NATIONAL CONFERENCE ON REMOTE SENSING & GIS 2022

Received Paper Details

	Duration Crop			
6	Experimental Project on Concrete - Partial Replacement of Cement by Prosopis Juliflora Ash	G.Balaji,V.Abimanyu,P.Pr abhu ,Guided by Mrs.Kashthuri.A/P	Pandian Saraswathi Yadav Engineering College	Student
7	Flexural behavior of concrete beam with partial replacement of quarry dust as fine aggregate	Dr.S.Thilagavathi G.Gayathri	Sri Bharathi Engineering College for Women ,pudukottai	Staff
8	Forest fire risk zone mapping and modeling	Mrs.L.Maria monisha	St.Peter's College of engineering and technology	Staff




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DEPARTMENT OF CIVIL
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TECHNOLOGY

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Activity – Report (NCRSAGIS'22)

Name of Activity : NCRSAGIS'22(Conference)
Title of the Lecture : Remote sensing and GIS
Name of the Resource Person : Dr.M.Muthukumar M.Sc., M.Tech., Ph.D.,
:Dr.C.Sivanesan M.E., Ph.D.,
: Dr.C.R.Paramasivam M.Sc., M.Tech., Ph.D.,
Designation and Address : Director Incharge, Gandhigram Rural Institute ,Dindidugal
: Head, Department of Civil Engineering, ACGCET Karaikudi
: Assistant Professor, Blue Hora University, Ethiopia
Date : 24.03.2022
Target Audience : 70
Number of Students/staff : 61 / 4
Venue : Seminar Hall

Summary of the Lecture : Dr.Muthukumar gave a Lecture on Remote sensing and GIS is a tool, techniques it is widely used across many disciplines such as Environmental Science Geology, Civil Engineering, Agriculture, Surveying meteorology and astronomy ., etc.

Remote Sensing sensors generally collect the data by detecting the energy that is reflected back from a earth. These sensors are placed on aircrafts satellites and drones

Remote sensing Imagery can be used for mapping soil properties, classification of crop and detection of crop water stereo, monitoring of weeds and crop diseases.

Remote sensing imagery placed an important role in Civil engineering constructions and research. This remotes sensing technology has shown important support in land utilizing , land construction planning .


The Remote Sensing GIS also involved in various field of Archeology , waste management , Natural resource management , assert management and even aviation and banking , mapping Telcom service, urban planning, smart city water management , Disaster management , Health care sector, navigation, mineral exploration, digital taxation, land record management, defense and military and supply chain management .





Souvenir Release




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Audience



Presentation




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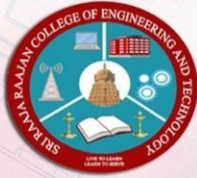
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NATIONAL CONFERENCE ON REMOTE SENSING AND GIS

CERTIFICATE OF PARTICIPATION

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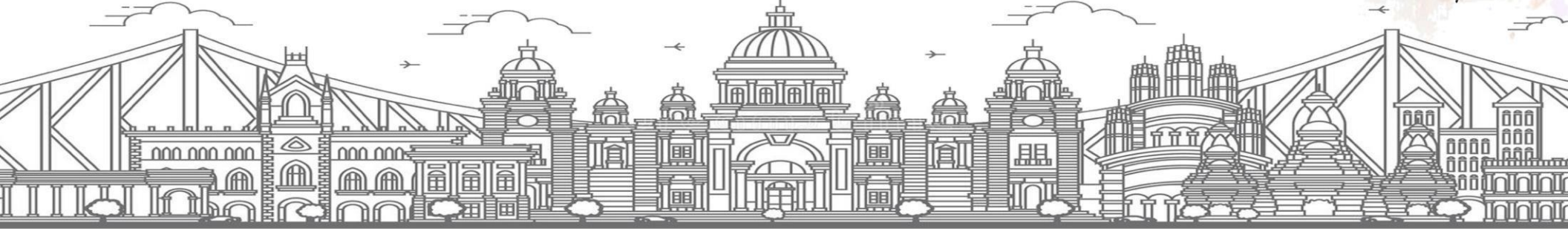
.....
as participated /presented a paper titled.....

.....
the one day national conference on Remote Sensing & GIS organized by the DEPARTMENT OF CIVIL ENGINEERING
Sri Raaja Raajan College of Engineering and Technology, Amaravathipuram on 24th March, 2022.

Co-ordinator

Convenor

Principal





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NATIONAL CONFERENCE ON REMOTE SENSING AND GIS

CERTIFICATE OF PARTICIPATION

This to certify that Dr. /Mr./Ms... **T.H.ILAGAVATHI...S**.....
of **SRI...BHARATHI...ENGINEERING...COLLEGE...FOR...WOMEN...PUDUKOTAI**.....
has participated /presented a paper titled **FLEXURAL BEHAVIOR OF CONCRETE BEAM WITH PARTIAL
REPLACEMENT...OF...QUARRY...DUST...AS...FINE...AGGREGATE**.....
in the one day national conference on Remote Sensing & GIS organized by the **DEPARTMENT OF CIVIL ENGINEERING**
Sri Raaja Raajan College of Engineering and Technology, Amaravathipuram on 24th March, 2022

Kalyani P
 Co-ordinator

Princip
 Convener

Princip
 Principal

