



# GCT NEWS

GOVERNMENT COLLEGE OF TECHNOLOGY, COIMBATORE - 13  
(Autonomous institution – Accredited by NBA Affiliated to Anna University, Chennai)  
[www.gct.ac.in](http://www.gct.ac.in)

VOL. 1 Bi-Annual

July 2013

ISSUE NO. 2

## Editorial Board

### Chief Editor

Dr. V. Lakshmi Prabha  
Principal & Patron

### Associate Editors

Dr. R. Shanmuga Lakshmi  
Asso. Professor/CSE

Dr. C. Santhi

Asso. Professor/ECE

Dr. R. Thenmozhi

Asso. Professor/Civil



## Contact Info:

Visit us at:

[www.gct.ac.in/](http://www.gct.ac.in/)

Mail to:

[principal@gct.ac.in](mailto:principal@gct.ac.in)

Phone :

0422 2432221

0422 2433355

Fax:

0422 2433355

## From Principal's Desk



The second edition of the Newsletter of Government College of Technology is released. We are happy and proud that the happenings in GCT are being published through this newsletter. The editorial board has taken commendable efforts. I am sure that this effort will continue and bring GCT to the forefront. We seek

the support of one and all in making this endeavour a successful one.

## From Editor's Desk

Dear Staff and Students of GCT

The global economic recession has taken its toll on the Indian Economy that has led to a loss in business and export orders besides tens of thousands of people losing their jobs in key sectors like IT, automobile industries and export oriented firms.

Undoubtedly, quality improvement in higher education can be brought through restructuring academic programme, providing high-tech infrastructure, world class campuses, globally recognised courses and degrees to overcome the challenges of today's world. No matter how hard the technical field tries to be competitive, the goal of any such objective itself has limited utility. When limits of such goals are reached, decisions on investment have to be guided by an inner sense of the right perception. The inner sense or conscience makes a competent engineer a successful person.

We express a sense of gratitude to all those who have been directly or indirectly involved in bringing out the current issue in this form.

LAWRELS TO THE INSTITUTE



The Principal, Staff and Students are happy to congratulate Dr. M. Rajaram, Professor of Electrical and Electronics Engineering on achieving an elevated status as the Vice Chancellor of Anna University, Chennai - an internationally leading and highly advanced technical university. He is widely acclaimed

as a wise mentor, a friendly teacher, an innovative administrator, and a visionary leader.

CENTRE OF EXCELLENCE

Under TEQIP – II, the Department of Civil Engineering and the Department of Electrical and Electronics Engineering have been sanctioned with the Centre of Excellence for Environmental Studies and Alternate Energy Resources respectively. Each department has been allotted with Rs.5 Crores for the establishment of CoE.

ROTARACT CLUB

The Rotaract club of GCT has been started to create awareness among the students and it carried out the following activities:

Planted around 20 saplings in front of the Alumni Block.

Organized blood donation camp wherein around 150 students of GCT donated their blood.

Had tie up with "SIRUTHULI" for future projects.

Under RI District 3132, the president of the club went to Aurangabad to establish an Inter District Youth Exchange.



GREEN CLUB

Green club has been initiated with the view to promoting research and development in green engineering concepts and energy conservation activities in and around the campus. The club has also created awareness among the students by turning them technically sound on new and renewable energies. Some of its achievements are:

Received "GREEN CAMPUS OF THE YEAR - 2013" award from Dr. Rangasamy, Chief Minister of Pondicherry on April 4th for the measures taken on environmental activities. Through Green club, our students did the following projects: 1. Alternative product for wood, 2. Solar pocket cell phone charger, 3. Automated solar cooker, and 4. Reducing E-wastage in the campus



Enrolled in "TECHFEST CHALLENGE" organized by IIT-BOMBAY-2013; got 5th position in State Level and 31st position in National Level through participation in environmental problem solving tasks; organized various awareness campaigns and competitions.

Organized a National level Technical symposium "PRAKRITI", in the campus for Inter college students on the concept of "GREEN TECHNOLOGIES AND SUSTAINABILITY" Conducted

an inter school event "SAPLINGS", which focused on Science fair, environmental quiz, sketching etc.

Dr.P.Sellamuthu, Director General, Indian Institute of Energy Management, Chennai glorified the event with his Chief Guest Address. Besides, guest lectures on industrial concepts given by Omega and Equatech attracted an entry of over 750 college students and 500 school students.

Organized weekly sessions on Thursdays, wherein volunteers discussed current environmental issues through G-Talks, Presentations, Group discussions and Debates, which resulted in an interaction with an inter disciplinary team.



#### SCIENCE CLUB

Science club conducted innovative activities for first year students to exhibit their talents in cultural and technical performances. Mr. Kolandhaivelu (HOD of Physics, Bharathiyar University, Coimbatore) had been invited as the chief guest. The club got guidance from the honorable Principal and the Chief Faculty Advisor of first year students. Some of the events of the science club inauguration were General Quiz, Debate, Cultural, Fine Arts, Essay writing, Poem writing etc.

#### TAMIL MANDRAM & FINE ARTS

Tamil Mandram and Fine arts encourage students to prove their abilities in Tamil literature and art. Every year Muthamil vizha is celebrated to appreciate the literary thirst of the young budding Engineers.

#### ICT ACADEMY

ICT Academy of Tamil Nadu conducted special programme to improve "Foundation skills in IT" in February, May and August consecutively. It honed the skills of students through various platforms such as Java, Oracle, and SQL. It also built the communication skills of ECE, EIE, and CSE students through skits and team activities.

#### TED x- GCT

Under-graduate students and alumni of Government College of Technology organized TED x GCT, an independent event that strove to recreate the unique experience gained at TED, on February 16, 2013.



The conference was held at Rajalakshmi Hall in the Alumni Building of GCT. The speakers were Baskar Subramaniam, Co-Founder, Amagi Media, and Alex Paul Menon, Chief Executive Officers, Raipur Development Authority.

#### NSS ACTIVITIES

The students and staff of GCT, prove their involvement in building the nation through their participation in community services that are organized regularly through NSS (National Service Scheme). This Year NSS conducted various orientation programs in nearby villages and awareness drives within the campus.



#### 65th ANNUAL SPORTS DAY

GCT celebrated 65th Annual Sports Day on 10th April 2013. The staff along with their family members took part in many events. The Chief Guest of the function distributed certificates and medals to honor the winners.

#### TROPHIES ACHIEVED

Our college Hockey men's team got III place in Major Dhyan Chand Memorial Trophy conducted by PSG College of Technology, on 5th and 6th, January 2013. Our college volleyball men's team got the RUNNER position in the KALAIVANI TROPHY, conducted by Kalaivani

College of Engineering, on 11th and 12th February, 2013. KPR Engineering College, Coimbatore conducted KPR trophy for Football, on 9th and 10th February, 2013, in which our college men's team bagged the SECOND place. PARK College of Engineering and Technology, Coimbatore conducted PARK ALUMINI TROPHY Ball-Badminton tournament, from 6th to 8th of February, 2013, in which our college men's team got the WINNER position.

#### CORPORATE RELATIONSHIPS

GCT has signed MoU with certain leading industries that will help attain symbiosis and reduce the gap between the expectations of an Industry (Practice) and the offerings (Theory) of Academics. PAYODA Technologies has signed MoU on 7th May 2013 to work in a collaborative mode and do research with mutual interest. Moreover, MoU activity is in progress with Ashok Leyland, Chennai, Central Leather Research Institute, Chennai, Red Leaf Technologies Ltd. Coimbatore, AIMIL and Front Line Ltd. Salem.



#### MOU with PAYODA

Robert BOSCH, Engineering and Business Solutions Pvt. Ltd., has signed MoU on 8th February 2013, to provide a framework of reference to build a strong relationship between RBEL and GCT in various areas of mutual interest and benefit.



MOU with Robert BOSCH

#### GCT ALUMNI ASSOCIATION

A sum of Rs. 3,35,000/- was awarded as scholarship to 67 Full Time B.E. students of different departments in February 2013 through which each student was given Rs. 5000. Er. Rajagopal of 1961 Batch financed the scholarship amount through corpus fund in the name of his parents Pushpavalli –Sundarajan.

A sum of Rs.1, 31,950/- was granted as scholarship to 53 top ranking students of GCT. Alumni association distributed this amount in the name of several scholarships.

#### TANCET HALL TICKET ISSUE

GCT is one of the centers for coordinating the issue of TANCET Hall Tickets. The Department of Computer Science and Engineering coordinated the work of issuing hall tickets from 06.02.2013 to 28.02.2013.

#### REPUBLIC DAY CELEBRATIONS



Every Year, on Republic Day, NCC students perform their drill during flag hoist ceremony. This year, saplings were planted in the college premises as part of the celebrations.

#### STUDENTS RESEARCH FOUNDATION (SRF)

SRF has been initiated under TEQIP – II with a view to enhancing the innovative project development and research skills. SRF organized Student Innovation Contest, that paved way for the under graduate students to exhibit their creative ideas and innovations. Hundred project proposals have been received so far. SRF gives financial support and the required technical guidance to students who possess innovative ideas. In turn, this support helps them make useful products.



Student Research Foundation



## Graduation Day

This year, Graduation day ceremony was celebrated on 28th April 2013 in the College Alumni Auditorium. The Chief Guest Dr. P. Kaliraj, Vice – Chancellor (O), Anna University, Chennai graced the occasion; delivered Graduation Day address; and awarded Degrees to 585 under graduates and 168 post graduates.

## DEPARTMENT OF CIVIL ENGINEERING

**RECRUITMENT OF FACULTY THROUGH TRB** Thanks to TEQIP, the institution took special interest in making the newly recruited TRB Staff Ms. M.C.Ravathi, Mr. V.Satheeshkumar, Mr. S. Makesh Kumar and Ms. R. Bhuvaneshwari, participate in the Pedagogical Training Programmes conducted by the Department of English and the Department of Humanities.

### SPONSORED PROJECTS

TEQIP has awarded the Centre of Excellence for Environmental Studies to the Department of Civil Engineering along with sanctioning Rs. 5 Crores. The Principal investigators are: Dr. M. Issac Solomon Jebamani, Dr. S. Jayanthi and faculties from the Department of Biotechnology and Chemistry.

### CONFERENCES

Dr.P.D.Arumairaj, Dr.S.P.Jeyapriya and Prof.S.Sathyapriya organized a National Conference on “Recent Advancements in Geotechnical Engineering” on 26.04.13. The chief guest, Dr.K.Ilamparuthi, Professor and Head of Civil Engineering Department of Anna University, Chennai, graced the occasion.

Dr.T.Meenambal, Prof.S.Chithra, Dr.R.Chithra and Prof.G. Damodarakannan organized a National Conference on Research Congress in Civil Engineering on 17.04.13.



### FACULTY DEVELOPMENT PROGRAMMES

One day National Level Seminar on “Recent Practices in Construction” was conducted on 27.02.2013. Dr. V. M. Shanthy, Associate Professor and Prof. K. Rekha, Assistant Professor were Coordinators. Er. A. Sudhakar, Chief Consultant, Dimensions, Coimbatore and Er. R. Jothiramalingam, Deputy Manager, Chettinadu Cement, Coimbatore were the resource persons for the programme.

Dr.S.Jayanthi, Dr.J.Jeyanthi and Prof.M.Rama organized a Faculty Development Programme on “Advanced Treatment Technologies for Water and Wastewater” from 18.03.13 to 24.03.13.

### WORKSHOPS

The Department of Civil Engineering conducted One Day Workshop on “Automatic Groundwater Level Monitoring System” on 19.02.2013 under Industry Institution Interaction Cell. Dr. S. Jayanthi, Associate Professor and Dr. C. Meiaraj Assistant Professor were Coordinators. The Chief Guest of the programme was Er. Umed Singh Kanyal, Encardio Electronics India Pvt. Ltd., Chennai.



Dr.P.D.Arumairaj, Dr.S.P.Jeyapriya and Prof.S.Sathyapriya organized a One Day Workshop on “Pile and Piled Raft Foundation” on 28.06.13.

#### GUEST LECTURES

Dr P Sellamuthu, Dr B. Senthil Kumar and Dr. S Puzhagendi from Indian Institute of Energy Management delivered a lecture on Green Technologies and Sustainability in February, 2013.

Mr. Mujeevur Rahiman, Senior Consultant from WIPRO Technologies presented about Behavioural Skills on 22.05.2013 and 23.05.2013.

Lt Col M. Bhaskaran, VP Projects Consultant addressed about Pile Foundation and Case Studies on 25.05.2013.

#### IN PLANT TRAINING

M.Manoj Kumar (III Year) attended internship training in GIS and GPS Systems at Hyderabad. J.K.Saravanesh (III Year) attended a 3 month summer resource fellowship at IISC Bangalore from April 2013 to June 2013.

In May 2013, fifteen students undertook Industrial training on “Green Building Technology” in Vivekananda Kendra, NARDEP Centre, Kanyakumari and three students got benefits through the In plant Training of Lafarge Pvt. Ltd. Coimbatore.



Third year B.E. Degree Students underwent in plant training at various industries such as Vishwanathan constructions Coimbatore, Department of Southern Railways, Salem, Design Consortium, Coimbatore, RMC Plant Coimbatore, India Cements, Sankari, Marudham constructions, Coimbatore, and L&T Construction, Coimbatore.

#### INNOVATIVE PROJECTS

Final year students got Financial Assistance from TEQIP – II for the project “Installation of Biogas Plant” in final year boys' hostel.



#### INDUSTRIAL VISITS

I Year Civil Engineering students visited Bhavani Sagar Dam, III Year students went to Lower Bhavani Project. VI Semester Part Time B.E. Students went to Shesasayee Paper Mill, and Ponni Sankar Sugar Mill as part of their Industrial tour.

#### PUBLICATIONS

C. Antony Jeyasehar, G.Saravanan, A.K. Ramakrishnan, S.kandasamy, “Strength and durability studies on fly ash based Geopolymer bricks, Asian Journal Of Civil Engineering” (BHRC), VOL. 14, NO. 6, 2013, pp.797-808

G.Saravanan, C. Antony Jeyasehar, S.kandasamy, “Fly ash Based Geopolymer Concrete” – A State of the Art Review, Journal of Engineering Science and Technology Review, 6 (1), 2013, pp.25-32

Chithra Rethnasamy, Thenmozhi Rajagopal and Hareesh Muthuraj (2013), “Bending Behaviour, Deformability and Strength Analysis of Prefabricated Cage Reinforced Composite Beams”, Elsevier Journal of Construction and Building Materials, Vol. 38, No: 1, pp. 482-490.

Thangaraj R. and Dr.Thenmozhi R.Industrial and Environmenta application of HighVolume Fly Ash in Concrete production, Nature and Environment and pollution Technology, Vol. 12, No.2, 2013, pp.315-320 Thangaraj R. and Dr. Thenmozhi R. “Sustainable concrete using High Volume Fly Ash from Thermal power plants, Ecology , Environment and Conservation”, Issue No.19(2), 2013, pp. 191-196.

Chithra R, Thenmozhi R and Ravathi M.C, “Analysis of prefabricated cage Reinforced concrete beams using ANSYS non linear model, International Journal of Advances in Civil Engineering”, Vol:3, No:1, 2013, pp.1-10

S. Jayanthi and K. Akil, "Influence of brackish water in the strength properties of concrete composites with replacement of class C fly ash and silicate", Pollution Research 32 , 2013, pp.305- 316

S. Jayanthi and K. Akil, "Influence of inocula on the treatment of distillery wastewater in anaerobic sequencing batch reactor", Archive Of Science Journal, Vol: 66, No. 5, May2013

Ph.DAWARDEES

Shri N.Lakshminarasimaiah, a Part Time Research scholar defended his thesis on the topic Integrated Solid Waste Management – A Case Study on Hosur in a Public viva – voce examination held on January 2013. Dr. T. Meenambal, Professor of Civil Engineering was his research advisor.

Shri., S. Shanmuga Sundharam, a Part Time Research scholar defended his thesis on the topic "Study on strength and durability aspects of fly ash aggregate concrete", in a Public

viva – voce examination held on March 2013. Dr. S. Jayanthi, Associate Professor of Civil Engineering was his research advisor.

#### ASSOCIATION ACTIVITIES

The most exciting event National level Techno-Cultural Inter-College Fest GEOFEST `13 came with colorful events on 8th and 9th February 2013. Students worked in teams to get spectacular success on this two day extravaganza. This event showcased the organizational skills of the students. Er. H. Anantha RamanI, Superintending Engineer, Southern Railways, Madurai graced the function with his inaugural address. The participants gained technical knowledge in the morning session and took pleasure in the cultural events, which were conducted in the evening session.

#### CO-CURRICULAR ACHIEVEMENTS

M.Manoj Kumar, a Third year B.E. Degree student has won prize in chess in an Inter College Programme , Ties, in Hosur.

## DEPARTMENT OF MECHANICAL ENGINEERING

#### RECRUITMENT OF FACULTY THROUGH TRB

Thanks to TEQIP, the institution took special interest in making the newly recruited TRB Staff Ms. S. Usha, Shri. S.Bradeeshmoorthy, Shri.M.Mohanraj and Shri. N. Vadivel, participate in the Pedagogical Training Programmes conducted by the Department of English and the Department of Humanities.

#### GUEST LECTURES

Mr. Pattu Subramaniam, an Alumnus of GCT (Mechanical Engineering) and a Specialist of BMW India, briefed on the most sought after brand in the automobile industry, BMW - the German based motorcycle, its manufacturing process, policy, and techniques that make it a unique model.

Maruti, which has attributed to 37% share of Indian car market, convened a workshop on Maruti cars and their efficiency on Indian roads.

TAFE, the third largest tractor manufacturer in the world, explained the integrated socio-technical Toyota Production System (TPS). It organized manufacturing processes and logistics for the automobile manufacturers and an interaction with its suppliers and customers.

ABB, a power and an automation technology industry focused on Power and Energy Conservation while Trident Pnuematics explained about innovating critical compressed air solutions.

#### ASSOCIATION ACTIVITIES

The most awaited event of the year Technotrust 13 unfolded on 12th and 13th of April. The National Level Techno-Cultural

Inter-College Fest certified the organizing skills of the students.

#### INNOVATIVE PROJECT

TAFE had organized a special briefing for II and III year students to help them bridge the gap between student life and corporate culture. The firm acceded to continue helping the students understand the field better.



Steam Engine Model built by the students.

#### PLACEMENTS

The placement graph of this month shows 70% placement and the rest have their counting in reputed firms like Robert Bosch, Ashok Leyland, ABB, TCS, Tafe, Triad, Sundaram fasteners, L&T and Saint Gobain, to name a few.

## PUBLICATIONS

P Senthil and K.S.Amirthagadeswaran (2013) "Enhancing Wear Resistance of Squeeze Cast AC2A Aluminum Alloy", *International Journal of Engineering* Volume: 26, No. 4, pp. 365-374.

P. Kannan, K. S. Amirthagadeswaran, T. Christopher and B. Nageswara Rao (2013), "Failures of High-Temperature Critical Components in Combined Cycle Power Plants", *Journal of Failure Analysis and Prevention*, DOI 10.1007/s11668-013-9691-4, Published online: 17 April 2013.

Baskaran, G. and Nataraj, M. (2013) "An Experimental Study on Angular Misalignment Detection in Rotor Bearing System Using Welch Power Spectral Density", *International Journal of COMADEM*, Vol. 16, No. 2, pp. 35-41.

Shanmugaraja, M., Nataraj, M. and Gunasekaran, N. (2013), 'Total performance excellence – a model for successful implementation of Six Sigma', *Int. J. Procurement Management*, Vol. 6, No. 3, pp. 297–328.

Sunilkumar S Honnungar, Nataraj, M., and Prabhu Raja, V. (2013) "Statistical-based Analysis of Thermally Induced Errors in Computer Numerical Control (CNC) Machining Center" *Frontiers in Aerospace Engineering (FAE)*, Vol. 2 No. 1, pp. 53-59.

Nataraj, M. and Ragoth Singh, R. (2013) "Analyzing pump impeller for performance evaluation using RSM and CFD", *Desalination and Water Treatment*, doi: 10.1080/19443994.2013.818924.

S.Srinivasamoorthy and K.Manonmani (2013), "Preparation and Characterization of Glass Fibre Reinforced Composite with TiO<sub>2</sub> composite", *Society of Fibre Science and Technology*, ISSN: 0037 – 9875, EISSN: 1884 – 2254, Vol. 69, No.8, pp. 154 – 158.

Palani P.K. and M.Saju, (2013) "Modelling And Optimization Of Process Parameters for Tig Welding Of Aluminium-65032

Using Response Surface Methodology", *International Journal of Engineering Research and Applications*, ISSN 2248-9622, Vol. 3, No.2, pp. 1-7.

Palani P.K. and M.Nanda Kumar, (2013) "Analysis of mechanical properties of chopped strand mat E-glass fiber epoxy resin nanoclay composites", *International Journal of Engineering and Science*, ISSN 2319-1813, ISBN 2319-1805, Vol. 2 No.2, pp. 185-189.

Ramesh K, Alwarsamy T and Jayabal S (2013), "Investigation of chatter stability in boring tool and tool wear prediction using neural network" *International Journal of Materials and Product Technology*, Vol.46(1),pp.47-70

Ramesh, K., Alwarsamy, T. and Jayabal, S (2013), "Prediction of Cutting Process Parameters in Boring operations using Artificial Neural Network" *Journal of Vibration and Control*. C.Manikandan, B.Rajeswari (2013), "Study of Cutting Parameters on Drilling EN24 Using Taguchi Method" *International Journal of Engineering Research and Technology*, Vol.2, Issue: 7, pp.146-149.

Vadivel.S.M., K.S.Amirthagadeswaran (2013), "Performance evaluation of facility layouts design analytical hierarchy process", *Industrial Engineering Journal*, Vol. VI, Issue: 3, pp. 22-18.

D.Siddhartha, K.S.Amirthagadeswaran, B Athiyaman and A. Parthiban (2013), "Experimental and Numerical analysis of the thermal performance of Copper, Aluminium and Brass alloy radiators", *Journal of Emerging Technology in Mechanical Science and Technology*, (ISSN No.: 0976-2558), Volume 4, pp. 16-22.

Ijaz Shahul Hameed and K.S.Amirthagadeswaran (2013), "Investigation on key parameters of Casing of Centrifugal pump using CFD", *Journal of Emerging Technology in Mechanical Science and Technology*, (ISSN No.: 0976-2558), Volume 4, pp. 119-1249.

## Ph.D.AWARDEES

Shri. P.Senthil, a Part Time Research scholar defended his thesis on the topic Multi-objective optimization of squeeze cating parameters for High quality slave cylinder in a Public viva – voce examination held on February 2013. Dr.K.S. Amirthagadeswaran, Professor of Mechanical Engineering was his research advisor.

## ACHIEVEMENTS OF STUDENTS

V.Balaji, Mathan Kumar, J.Jagan Muthusamy (II year) excelled in arranging the lettered cups with their remote controlled hydraulic arm and finished fifth among fifty teams at Pragyan, NIT, Trichy.

Deepak Krishna and V.Balaji were declared runners up for their paper on Experimental Investigation of Diethyl Ester as a fuel additive in Diesel emulsified CI Engine at The Central Electrochemical Research Institute, Karaikudi.



## RECRUITMENT OF FACULTY THROUGH TRB

Thanks to TEQIP, the institution took special interest in making the newly recruited TRB Staff Ms. A.S.Wincy Ms. Pon Annal, Ms. G.R.Radhika, Mr. C.Marimuthu, Ms. M.Raghapriya, Ms. B.Lavanya Jeya Gomathi, Ms. N.Arulmozhi, participate in the Pedagogical Training Programmes conducted by the Department of English and the Department of Humanities.

## SPONSORED PROJECTS

The Department of Electrical Engineering received Centre of Excellence for Alternate Energy Research from TEQIP, which has sanctioned Rs. 5 Crores. The Principal investigator is Dr.N.Devarajan and the Financial Nodal Officer is Dr.P.Maruthu Pandi.

## FACULTY DEVELOPMENT PROGRAMMES

TEQIP sponsored one week Faculty Development Program on "Restructured Power Markets and FACTS devices" was conducted from 28.12.2012 to 6.1.2013.

AICTE sponsored Two weeks Faculty Development Program on "Smart Grid Challenge and Opportunities" was conducted from 29.5.2013 to 11.6.2013.

## PUBLICATIONS

D.Mary, "UPF based reactive power planning and voltage stability limit improvement under single line outage contingency condition through evolutionary Algorithms" Turkish Journal of Electrical Engineering and Computer Sciences, Vol-21, 1092-1106

D.Mary, "Big Bang – Big Crunch Algorithm for voltage Stability Limit Improvement by Co-ordinated control of SVC Settings", Research Journal of Applied Sciences, Engineering and Technology Vol-6, No: 7, pp. 1209-1217

D.Mary, "Power loss minimization in Radial Distribution System using Capacitor Switching with WAP based monitoring" International journal of ARCISCI, Jan 2013, Issue ISSN 1661-464 x-10 Vol. 66, pp. 52-67

D. Mary, "Modeling and Simulation of Grid Connected Wind energy System" International Journal of soft computing and Engineering (IJSCE) Vol. 3, Issue 1, Page 1-5

N. Devarajan, 'Single Network Structure for Stuck-at and Bridging Fault Analysis and Diagnosis for Exclusive-OR Sum of Products Reed-Muller Canonical Circuits', International Journal of Scientific & Engineering Research (IJSER), Vol.4, Issue.3, March 2013, pp. 1-6

N. Devarajan, ' A Novel Direct Torque Control for Induction Motor Drive System with Low Torque Ripple and Current

Distortion utilizing FPGA', International Journal of Vehicle Autonomous Systems, Vol.11, Nos.2/3, 2013, pp. 292-312

N. Devarajan, 'Cost Effective Sensorless Speed Control of Permanent Magnet Brushless DC Motor Using FPGA and Virtual Instrumentation ' Wulfenia Journal , Vol. 20, No.1, Jan. 2013, pp. 72-83.

N. Devarajan, 'Comparison of Phase Shifted Series Resonant DC – DC Converter with Modified Full Bridge Zero Voltage Switching DC-DC Converter,' Archives Des Sciences, Vol.66, No.2, Feb. 2013, pp. 163-180.

N. Devarajan, 'Role of Custom Power Devices to Enhance the Power Quality in Grid Connected Renewable Energy Systems', International Journal of Applied Engineering Research, Vol.8, No.3, 2013, pp. 223-237.

N.Devarajan,'Application of Wavelet Transform for the Detection and Minimization of Harmonics using Shunt Active Filter' International Journal of Applied Engineering Research, Vol.8, No.10, 2013, pp 36-41.

N. Devarajan, 'Modelling a Lower Order Linear Time Invariant SISO Discrete System employing Water Swirl Algorithm', European Journal of Scientific Research, Vol.101, No.4, 2013, pp. 559-612.

N. Devarajan, 'An Improved Water Swirl Algorithm for Lower Order Model formulation of Multivariable Linear Time Invariant Continuous System', Life Science Journal, Vol.10, No.2, 2013, pp. 1-

N.Devarajan, 'An improved Channel Aware Cross-Layer Designed Scheduling for QoS Enhancement in IEEE 802.16 Wireless Networks', Archives Des Science Journal, Vol.66, Issue. 3, March 2013, pp.1-12

N.Devarajan, 'Channel Quality Based Cross-Layer Scheduling Algorithm in Wimax Networks', Life Science Journal, Vol.10, Issue. 2, June 2013, pp. 2498-2506.

## Ph. D AWARDDEES

Ms. Sheela Shobana Rani. K, a Part Time Research Scholar defended her thesis on the topic "A Hybrid Optimization Technique for Deployment and Routing in Wireless Sensor Networks" in a Public viva – voce examination held on January 2013. Dr. N. Devarajan, Professor of Eletrical Engineering was her research advisor.

Ms. Babypriya.B, a Part Time Research scholar defended her thesis on the topic "A Novel Genetic Fuzzy Controller for Power Quality Improvement of DFIG Wind Turbine System" in a Public viva – voce examination held on January 2013. Dr. N. Devarajan, Professor of Eletrical Engineering was her research advisor.

#### RECRUITMENT OF FACULTY THROUGH TRB

Thanks to TEQIP, the institution took special interest in making the newly recruited TRB Staff, Dr. P. Deepa, Mrs.N.AmeenaBibi and Mrs. A.Anitha, participate in the Pedagogical Training Programmes conducted by the Department of English and the Department of Humanities.

#### NATIONAL CONFERENCES

TEQIP II sponsored "National Conference on Advanced Computing and Communication System" was held at GCT on 26th April, 2013. It was presided over by Ram Kumar Chinnaswamy. Scholars from different Institutions presented several papers that day.



#### FACULTY DEVELOPMENT PROGRAMMES

Dr. V. Sumathy, Associate Professor of ECE, co-ordinated one week Faculty Development Programme on "SENSOR NETWORKS AND CLOUD COMPUTING" from 12th to 18th February 2013 under TEQIP II.

Dr. C. Santhi, Associate Professor of ECE conducted workshop for third year ECE students on 13th March, 2013 in order to expose them to microwave and wireless measuring equipment. This was taken up by Agilent Technologies.

Dr. Meena Srinivasan, Associate Professor of ECE, co-ordinated a workshop on "Wireless Sensor Networks" from 14th to 15th March 2013, under TEQIP II.

Ms. O. Saranya, Assistant Professor of ECE conducted a seminar on "Effective communication skills" on 14th March.

Dr.C.Santhi, Associate Professor of ECE conducted a workshop on "Robotics" on 18th March, 2013 for third year ECE students which helped building the spirit of innovation in the field of Robotics.



#### INDUSTRIAL VISIT

Third year ECE students visited Indian Space Research Organization at Trivandrum on 7th March 2013.

#### ASSOCIATION ACTIVITIES

##### Nexus '13

ECE Association conducted a Two Day National Level Technical Symposium on 2nd and 3rd March, 2013, which was inaugurated by S.N Karthik, Senior Vice President, Polaris. Students from several colleges participated in the symposium. Tech-Talk '13 ECE Association conducted an Inter Department Technical Fest, in which events like project presentation, paper presentation, tech quiz, circuit debugging, code debugging were conducted to bring out the talents of second and third year students.

Mr. Karthick Raja, an alumnus of GCT (2006 ECE Batch) delivered a lecture on the topic "Open Source Embedded Systems" to expose third and final year ECE students to Arduino.

#### PH.D AWARDEES

Ms. P. Deepa, a Part Time Research scholar defended her thesis on the topic "Investigation on Efficient FPGA Architectures for Image Coding Algorithm" in a Public viva – voce examination held on 4th March 2013. Dr. C. Vasanthanayaki, Associate Professor of ECE was her research advisor.

#### ACHIVEMENTS OF STUDENTS

##### TCS Best Student Award 2013

Mr. P. Pradeep, Final year student of ECE (2009-2013 Batch) bagged the Best Student Award from TCS for his excellence in academics and co-curricular activities for the year 2012-2013.

## Pioneer in Environment

K. Nafeel Ahamed, a student of final year ECE was one among the 25 students on all India level to participate in a one month inter disciplinary summer certificate course on "Agenda for Survival" conducted by Centre for Science and Environment, New Delhi.

## SPORTS

S Indraneel of Final year ECE, represented GCT and secured 3rd position in Tennis and Handball and secured 4th position in Ball Badminton held at SNS College of Engineering. S. Mohana priya of Final year ECE won 3rd position in Zonal Level Basketball Tournament held at Sree Sakthi Engineering College. A. Bruno of Final year ECE and Jaffin Antony (M.E), secured runners up at the Zonal Level Cricket Tournament held at Kumaraguru College of Technology.

## DEPARTMENT OF PRODUCTION ENGINEERING

### TRB RECRUITMENT OF ASSISTANT PROFESSORS

Thanks to TEQIP, the institution took special interest in making the newly recruited TRB Staff Mr. G. Vijayarajagavan, Mr. N. Ajay Manikandan, Mr. S. Kumar, Dr. P. Ilamathi, Mr. M. Sankarkumar, participate in the Pedagogical Training Programmes conducted by the Department of English and the Department of Humanities.

### INPLANT TRAINING AND INTERNSHIP:

With a view to gaining knowledge, most of the third year and fourth year students did in plant training and mini project in leading industries like L&T, Wheels India limited, TVS, BMW, Flow serve, etc. Some students had their internship at BMW and IIT-MADRAS.

### SAE CLUB

Society of Automobile Engineers (SAE) Club of GCT organizes many events throughout the year. Our SAEGCT members secured a good position in the B-plan of STUDENT CONVENTION, which was conducted by SAE INDIA. Students won 1st place in National Level student convention conducted by SAE for Business Plan at Chaitanya Barathi Institute of Technology, Hyderabad.



### PRAXIS

PRAXIS, A National Level Technical Symposium was conducted on 15th and 16th March 2013. Students exhibited their talents in organizing Technical sessions and Cultural events. Students from different Institutions took part in the symposium.

### PLACEMENTS

Production Department holds one of the best placement records in our college and 74% of the total strength has been employed in well reputed companies like GODREJ, TVS, TCS, TAFE and FLOW SERVE. JOURNAL PUBLICATIONS:

Prof. V. Sritharan published a research article on "Optimization of Resistance Spot Welding Process Parameters for EN19 steel using RSM method", in an International Journal of Advancements in Research & Technology, Vol. 1, Issue 5, May 2013.

Dr. P. Ilamathi, published an article "A novel approach for modeling of NOx emission reduction in a tangentially fired coal boiler", in an International Journal Oil, Gas and Coal Technology, Vol.6, Issue 4, 2013, pp.449 – 461.

### CO-CURRICULAR ACTIVITIES:

Department of Production Engineering motivates young and dynamic entrepreneurs. PHD Foundations, initiated by the third year Production Engineering Students got recognition from TATA First DOT and was allowed to present their business plan at the National conference. They were supported by National Entrepreneurship Network (NEN).

### FIRST LEGO LEAGUE (FLL)

FLL is an International Robotics Olympiad organized by LEGO for school students. One of the department students was a mentor to the team "Untitled 10" from Bigbodhi Academy Pvt. Ltd, Coimbatore.

## SOCIAL ACTIVITIES

Every year, the department donates clothes to orphanages and an electrically operated vehicle to a physically handicapped student of Coimbatore District. This year, the following social activities were carried out.

- o Donated clothes to orphanages.
- o Donated electrically operated vehicle to Mrs. BANUSUNDARI, MBA (gold medalist) who lives in the outskirts of Coimbatore.
- o Donated Rs 20,000 to a child infected with cancer, who is being treated in Sri Ramakrishna Hospital.

## DEPARTMENT OF CSE & IT

### RECRUITMENT OF FACULTY THROUGH TRB

Thanks to TEQIP, the institution took special interest in making the newly recruited TRB staff Ms. Bhavani, Ms. R, Sumathi, Ms. L, Meena kowshalya and Ms. T. Raja Senbagam of CSE and Ms. C. Aswini, Ms. C. Blessy Queen Mary, Ms. M. Devi, Mr. Gladson Oliver, Ms. S. Jeyanthi, Mr. M. Kalidass, Ms. J. Suguna, and Ms. R. Malavika of IT, participate in the pedagogical training programmes conducted by the Department of English and the Department of Humanities.

### CONFERENCES

Under TEQIP II, Dr. K. Baskaran organized a National Conference on "Recent Advances in Computer Vision and Information Technology in CSE & IT" on 11.03.2013.

### FACULTY DEVELOPMENT PROGRAMMES

One Week Faculty Development Programme on 'NS 3 Network Simulator' was conducted from 27.03.2013 to 02.04.2013 under TEQIP Phase II. Dr. J. C. Miraclin Joyce Pamila and Prof. K. Kumar, Assistant Professors were Coordinators.

AICTE sponsored Two week Faculty Development Programme on 'Cloud Computing' was held from 06.05.2013 to 19.05.2013. The Programme was coordinated by Dr. R. Shanmugalakshmi, Associate Professor.

AICTE sponsored Two week Faculty Development Programme on 'Research Issues in Named Data Networking' was conducted from 17.06.2013 to 30.06.2013. The programme was coordinated by Dr. K. Kumar, Assistant Professor.

### WORKSHOPS

Under TEQIP II, a Two Day Workshop was conducted on PHP and MySQL from 16.02.2013 to 17.02.2013. It was coordinated by Dr. M. L. Valarmathi and Dr. J. C. Miraclin Joyce Pamila.



TEQIP Sponsored One Day Workshop on "Android Application Development" was conducted by Dr. R. Shanmugalakshmi on 27.02.2013.

TEQIP II sponsored One Day Workshop on "Quality Summit-2013 - Spirit of Accreditation" was conducted by Dr. T. Purusothaman on 09.03.2013.

AICTE Sponsored Two Day National workshop on "Human Centric Data Privacy in Wireless Body Area Networks" was conducted by Dr. K. Baskaran from 12.03.2013 to 13.03.2013.

Dr. T. Purusothaman and Dr. J.C. Miraclin Joyce Pamila organized DRDO sponsored Two Days Workshop on "Research Directions and security Issues in Cloud Computing" from 22.03.2013 to 23.03.2013

Prof. S. Kumaresan and Dr. R. Shanmugalakshmi coordinated NPTEL workshop on 9th April, 2013 in collaboration with IIT, Madras. The discussion forum was handled by Prof. K. Mangala Sunder, National web courses coordinator and NPTEL Coordinator, IIT Madras.



## INPLANT TRAINING

Five B.E. / B. Tech Students had internship training for three months at Commvault, Exeter, Cordys and Aditti Group respectively.

## PUBLICATIONS

M.L.Valarmathi, "BAC: Bandwidth based admission control scheme for Gateway relocation in IEEE 802.16e Networks", ICTACT Journal on Communication technology, vol. 04, Issue. 01, March 2013.

M.L.Valarmathi, "SAR image despeckling using possibilistic fuzzy C-Means clustering and Edge detection in Bandelet domain", Neural Computing and Applications (Springer), April 2013.

R.Shanmugalakshmi, "Multi objective Particle Swarm optimization in Video Coding", International Journal of soft computing and Engineering, Vol.12, issue 6, January 2013, pp.419-423.

R.Shanmugalakshmi, "Video coding using Dualtree Discrete Wavelet Transform and Multi Objective Optimization Approaches", American Journal of Applied Sciences, SciencePublications, Vol.10, issue 2, April 2013, pp. 179-184.  
R.Shanmugalakshmi, "PSO in wavelet based and Block based Video Coding Techniques-An analysis", Wulfenia Journal, Vol.20, No.4, April 2013.

T.Purushothaman, "Dynamic Resource Access control using XACML Implementation For GRID Computing", European journal of scientific research. ISSN: 1450-216X/1450-202X Vol. 96 No 3 February 2013, pp. 460-466.

T.Purushothaman, "Design and Performance Analysis of Scalable and efficient group key management scheme

[SEGKMS] for group communication in multicast networks", Life Science Journal 2013 .vol. 2 (ISSN: 1097-8135).  
T.Purushothaman, "An enhanced and cost effective group key management scheme for multicast network", Journal of Computer science, 9(4): 477-487, 2013. (ISSN: 1549-3636).

## Ph.DAWARDEES

Dr. M.L.Valarmathi, Associate Professor guided two scholars to complete their doctoral thesis.

Shri C. Selvan, a Full Time Research scholar defended his thesis on the topic "Mobility Management Techniques to improve QoS in Mobile Networks using Intelligent Agent Decision Making Protocol" in a Public viva – voce examination held on May 2013. Dr. R. Shanmugalakshmi, Professor of Computer Science and Engineering, was his research advisor.

## ASSOCIATION ACTIVITIES

Soft Sem Quiz – Intra Departmental Technical event was organized on 28.01.2013. Info Quest 2013 was organized by the CSITA on 06.03.2013 and 07.03.2013.

## PLACEMENT DETAILS

89 % of B.E.CSE and 85 % of B.Tech.IT students have been placed in TCS, CTS, INFOSYS etc.

## INDUSTRY INSTITUTE INTERACTION

Two elective courses offered by Industries titled "Information and Storage Management, Enterprise infrastructure Management" have been introduced in the curriculum of B.E. CSE and B. Tech IT in collaboration with ICT Academy, EMC2 and TCS. A course titled Advanced Microcontrollers and Applications in Embedded system has been introduced in the curriculum of M.E. CSE in collaboration with Frontline Electronics.

## DEPARTMENT OF INDUSTRIAL BIOTECHNOLOGY

### RECRUITMENT OF FACULTY THROUGH TRB

Thanks to TEQIP, the institution took special interest in making the newly recruited TRB staff Mr. V. Karthik, Ms. T. Malarvizhi, Mr. J. Arun Baskaran, Ms. R. Nithya, Ms. P. Saranya, Ms. K. Selvapriya, Ms. G. Sharmila, Ms. A. Annu, Ms. J. Mercy Nisha, Ms. D. Angeline kiruba, Mr. A. Thirunavukkarasu, Mr. C. Muthukumar, Mr. V. Rajasekar Pauline and Ms. M. N. Priyadharshini, participate in the pedagogical training programmes conducted by the Department of English and the Department of Humanities.

### IN-PLANT TRAINING:

Most of the third and fourth year students have undergone in-plant training and internship in industries such as

International Centre for Genetic Engineering and Biotechnology, Chennai, Jawaharlal Nehru Institute, Bangalore, Sun globe Biotech, Coimbatore, Clinical Laboratory Techniques, Erode, Milk procurement and Processing at Cavin-kare, Erode, Dharani Sugars & Chemicals Limited, Vasudevanallur, Food technology at Hi-rise Food tech laboratory, Pasteur Institute of India, Coonoor and Molecular

Therapeutics, Department of Zoology, Madras University, Chennai during 2012-2013.

### JOURNAL PUBLICATIONS

C.Muthukumar, G.Sharmila, published a paper on "Extracellular Biopolymer Production by Aureobasidium pullulans MTCC 2195 Using Jackfruit Seed Powder", Journal of

Polymer and Environment, June 2013, Volume: 21, pp.487-494 and another paper on "Sequential Statistical Optimization of Red Pigment Production by *Monascus purpureus* (MTCC 369) using Potato Powder", in Industrial Crops and Products, – January 2013, Vol. 44, pp. 158164.

A.Thirunavukkarasu, published a paper on "Engineering Fatty Acid Oxidation Pathway for the Production of Yeast-based

Monomer, Research and Reviews", Journal of Biotechnology, 2013.

#### STUDENTS ACHIEVEMENTS:

R. Vignesh, an alumnus of GCT, scored All India Rank - 10 out of the 16159 candidates appeared for GATE 2013, with 99.70% that paved the way for his admission to Ph. D in the prestigious institution IIT, Madras.

## DEPARTMENT OF SCIENCE & HUMANITIES

### RECRUITMENT OF FACULTY THROUGH TRB

Thanks to TEQIP, the institution took special interest in making the faculties, Ms. Rajeswari, Dr.A. Vanitha, Dr. M. Shyamala, Mr. Sowndarrajan and Mr. J. Duraikannan, participate in the Pedagogical Training Programmes conducted by the Department of English and the Department of Humanities.

### ENGLISH LIBRARY

An English Language Library consisting of 566 books, has been set up as per the suggestion of the Commissioner of Technical Education, Chennai with regard to the establishment of Quality Improvement Cell in all Engineering Colleges, which is bent on improving the Teaching - Learning Experience that gives special emphasis on developing English language skills through reading English Books. In a bid to nurture the reading skill of the first year students, the Chief Faculty Advisor, Dr. S. Ganesan has received the books from the library, for which Dr. S. Latha Venkateswari, Assistant Professor of English will be in charge.

### FACULTY DEVELOPMENT PROGRAMMES

The Department of Physics and Chemistry jointly organized a Faculty Development Programme on "Current research trends in Nano Science and Technology and Application in Solar Cells" from 15th to 21st May 2013. Dr. S. Vairam, Associate Professor of Chemistry and Dr. M.Thamilselvan, Associate Professor of Physics Coordinated the Programme.

Dr. J. Anbalagan Vijay organized a Faculty Development Programme on "Language use in Technology Integrated Classroom Communication" from 20th to 26th June 2013.

### JOURNAL PUBLICATIONS

S. Anbuchudar Azhagan and S. Ganesan published a paper in March 2013 on "Linear and Nonlinear Optical Studies of Gamma Glycine Single Crystals from Ammonium Carbonate for Optoelectronic Applications" in an International Journal that brings out special issues on light and electron optics and another paper on "Structural, Mechanical, Optical and Second Harmonic Generation Studies of Gamma Glycine

Single Crystals" in The Journal of Physical Sciences. Vol. 8(1), January 2013.

C.Mahendran and N.Suriyanarayanan, published a paper on "Structural and Optical Properties of Polyol Assisted Nano-Crystalline CuInS<sub>2</sub> Thin Films", in Optoelectronics and Advanced Materials Journal, April 2013, Vol. 7, pp. 301-304

C.Mahendran and N.Suriyanarayanan, published a paper on "Synthesis and Characterization of Sprayed Zn-doped Polycrystalline CuInS<sub>2</sub> Thin Films", Elsevier Optik, 2013, Vol. 44, – pp. 158164

C.Mahendran and N.Suriyanarayanan, published a paper on "Preparation and Characterization of Novel Single-Crystalline PbBiS<sub>2</sub>", Materials Letters, January 2013, Vol. 91, pp. 362-364

BOOK AUTHORED BY GCT FACULTY  
Dr. S. Ganesan, Professor of Physics has authored a book titled "Engineering Physics – I", to cater to the specific needs of first year students of all branches. Shri. N. Iyandurai has co-authored this book and it has been published by GEMS Publisher.

### UPCOMING EVENTS

Inauguration of STUDENT RESEARCH FOUNDATION on 5th October, 2013 by Dr. Mysamy Annadurai, Former Project Director of Chandrayaan and an alumnus of GCT.

MUTHAMIL VIZHA will be celebrated to appreciate the literary thirst of the young budding engineers in August 2013.

### AICTE PROGRAMMES –

AICTE has sanctioned the Department of CSE/IT to organize

- A Two day National level Seminar on "Web mining and IR" on 7-11-2013 and 8-11-2013.

- Faculty Development Programme on "Research issues in cloud computing" from 18-11-13 to 29-11-13.

Faculty Development Programme on "Web application security" from 4-12-13 to 17-12-13

# NEW BUILDINGS AT GCT



Production and IT block



Autonomous -Valuation Hall



Industrial Biotechnology Department



**Alumni Association**



**Convocation Photo**