



MARIAN moments

ISO 9001 : 2008 Certified

Trivandrum Latin
Archdiocesan Institution

A Bimonthly bulletin of Marian Engineering College

● Vol. 1 No. 1 ● August 2012

Manager's Note



We are on a march and our pursuit is for a centre of excellence. Students and staff of our college contribute their might and we have here a vibrant campus. Publishing

this news letter is an exhibition of our activities and it will continuously give an overall picture of our college. It also has its historical value. I congratulate the editorial board members who have come forward to take-up this noble task and wish all success to this great endeavour.

Msgr. A. George Paul

Patron's Message



I am really happy to learn that Marian Engineering College is launching "Marian Moments" for the benefit of staff, students and well-wishers. This is indeed a good initiative as it helps the readers to get in touch with the day to day activities of the College and to have a deeper insight regarding its aspirations and achievements.

I am sure that the combined efforts and active participation of both staff and students are going to bring out note-worthy, memorable and valuable issues of "Marian Moments." I take this opportunity to wish you, all success and God's abundant blessings.

Yours in Jesus and Mary,

+ Soosa Pakiam M.,
Archbishop of Trivandrum

Kalam's Salute to Trivandrum Latin Archdiocese

"My rocket career started at Thumba long back in 1962. There was no place to start the work. A great man, Rev. Fr. Peter Pereira (Bishop of that time) and a great Scientist, Prof. Vikram Sarabhai, these two great minds joined together and decided that ISRO Space Program should have a Holy place to work. We started our first work in a Church. It never happened anywhere in this world and nowhere will it happen. Only in India. Only in Thumba, such a thing had happened. So I'm always grateful to the people of Thumba who are so generous in thinking and giving."

Dr. A P J Abdul Kalam



The Pride of Marian Engineering College - Our Class Toppers with Dr. A.P.J Abdul Kalam & Dr. Soosa Pakiam M

Address and interaction with the Students of Marian Engineering College



"What I will be remembered for?" was the thought shared with the students, where the technique used by his professor to complete the task on time was mentioned. Acquiring knowledge in an integrated way for using multiple disciplines towards product development and its management, right from the undergraduate engineering programme was highlighted. Certain points of the book "Empire of the Mind" written by Dennis Waitley was quoted and also added a third line to his points which relates to action of educational institutes.

It was mentioned that India has to be transformed into a developed nation to achieve the distinctive profile of India. Five areas have been identified where India has a core competence for integrated action: (1) Agriculture and food processing (2) Education and Healthcare (3) Information and Communication Technology (4) Reliable and Quality Electric power, Surface transport and Infrastructure for all parts of the country and (5) Self-reliance in critical technologies. These five areas are closely inter-related and by progressing in a coordinated way.

We can achieve food, economic and national security. A major mission in the development of infrastructure, for bringing rural prosperity is through Provision of Urban Amenities in Rural Areas (PURA). Dr. Kalam suggested that Marian Engineering College can create a unique PURA complex encompassing 50 to 100 villages in the neighborhood of Trivandrum in collaboration with private industry, social reformers and the government. This PURA can be called as Marian PURA. Also development in the systems like physical connectivity, electronic connectivity and knowledge connectivity was discussed.

Finally, sir asked to think about what we would like to be remembered for.

According to him we have to evolve ourselves and shape our life, we should pen it down on a page, that page may be a very important page in the book of human history. And we would be remembered for creating that one page in the history of the nation - whether that page is the page of invention, the page of innovation or the page of discovery or the page of creating social change or a page of removing the poverty or the page of fighting injustice or planning and executing mission of networking of rivers.



Interaction with APJ



Editor's Desk

There are times and moments in our lives that we experience great turmoil that cry out for expression. These create struggles to deliver conceived ideas and concepts, are the pearls that must unfold in "Marian Moments". Marian family is an amalgam of creativity, a blending colour, somewhat like a kaleidoscope. When each one puts in a tiny coloured bead and are shown together, a wonderful panorama of our dream taken form.

Marian Moments is an opportunity to Dream Big and High. Let us not stop dreaming.

Rev. Fr. A.R. John



Principal Speaks

Its our motto, it is our dream that all we teach, learn and work for, make a better society and a better citizen of India. Each one of us is capable of achieving greatness in life. No doubt, you are born with

it. Let us harvest this dream through the development of science and technology. Each student of Marian, any one for that matter, is a masterpiece of God. I believe you have everything in yourself to succeed and flower fully. Believe in yourself and your potential.

Here is 'Marian Moments' a gentle opening for you to add beauty into your life and life of the Marian Family. Let Marian continue to grow from strength to strength.

Prof. Tomy Michael

Kalam's Oath for Engineering Students

*Engineering and Technology is a life time mission. I will work, work and work and succeed
Wherever I am, a thought will always come to my mind. That is what process or product I can innovate, invent or discover.
I will always remember that "Let not my winged days, be spent in vain".
I realize I have to set a great technological goal that will lead me to think high, work and persevere to realize the goal.
My greatest friends will be great scientific and technological minds, good teachers and good books.
I firmly believe that no problem can defeat me; I will become the captain of the problem, defeat the problem and succeed.
I will work, work and work for removing the problems faced by planet earth in the areas of water, energy, habitat, waste management and environment through the application of engineering and technology.
I will work for making the district in which I work as a carbon neutral district.
My National Flag flies in my heart and I will bring glory to my nation.*

January

- The new year kick started with an intensive three day Eng./Med. Entrance coaching program – 'ARETE 2012' for +2 students of our village.
- A very informative talk by Dr. Ramesh (VSSC) on 'REUSABLE LAUNCH VEHICLE' was hosted by the Mechanical Department as a part of the experts' interactive program.
- 'TOWARDS GREATER COMPETENCY' a seminar by Dr. Suja R, Associate Professor, CET was conducted by the Civil Department.

February

- The External experts interactive program continued in February with the expert talk on 'PROPULSION' by Sri. Senthil Kumar (LPSC) and Sri. Hari Krishnan (VSSC) and it was hosted by the Mechanical Department.

March

- The month began with 'ANNUAL RETREAT - GRACE - 2012', an Initiative by Marian Jesus Youth.
- His Grace Most Rev. Dr. M. Soosa Pakiam inaugurated the new COMPUTER INTEGRATED MANUFACTURING LAB of Mechanical department.
- The 'DECENNIAL GRAND FINALE' of Marian Engineering College was monumental which was further exalted by the inauguration of COMMUNITY COLLEGE, THANAL and SANTHWANAM MARIAN
- The Seminar on 'STEEL UPDATE' was conducted by Metrolla Steel Ltd in Civil Department.
- The students from our college have participated in many events and won prizes in KERALA UNIVERSITY YOUTH FEST 2012 held at Sree Narayana College, Kollam.
- Students won prizes in many of the KERALA UNIVERSITY SPORTS FESTIVAL events such as Basketball tournament, cricket, shuttlecock, athletics etc.

April

- A short term course on 'ADVANCED WORLDWIDE TEACHING METHODOLOGY FOR COMPUTER INTEGRATED MANUFACTURING' was conducted in Mechanical Department.
- SANTHWANAM MARIAN conducted a mental hospital visit in the month of April.
- The college has adopted one Ward of Kadinamkulam Panchayath for the development program.

May

- The Alumni Association (MECAA) conducted 'ALUMNI EXECUTIVE MEET'.
- As part of COMMUNITY COLLEGE extension program, the Computer Science Department provided two months training program for Plus two students on C++, MS office and 'Internet and email'.
- As part of COMMUNITY COLLEGE extension program Civil Department conducted a two months course on 'Land Surveying'.

June

- The college was fortunate to have an address and students' interactive session with Dr. A P J Abdul Kalam, former President of India.
- Dr. A P J Abdul Kalam inaugurated 'MARIAN CENTRE FOR RESEARCH AND DEVELOPMENT'.
- Also Dr. A P J Abdul Kalam initiated campus' 'GO GREEN' endeavour.
- The NSS volunteers conducted green tree plantation program as a continuation of campus' 'GO GREEN' endeavour.
- 'INSTITUTION BUILDING' - One day Faculty Development Program was conducted by Mr. Krishna Kumar (TIME - CEO).
- 'FACULTY DEVELOPMENT PROGRAMME' - A training program for newly appointed faculty was conducted.
- 'PROJECT EXPO 2012', an exhibition conducted by EC & AE Department.



Dr. G. Madhavan Nair flagged off 'RIMOR' - a students' interactive program



The 'ANNUAL SPORTS MEET 2012' was conducted at Central Stadium



Winning project - Robotic arm with spy cam

CIVIL ENGINEERING

SEMINAR ON "TOWARDS GREATER COMPETENCY" was conducted on 6th January 2012.

A step to mould the students to improve their qualities in current scenario. The aim of the seminar was to build up confidence and improve their skills in technical presentation.

SHORT TERM COURSE ON LAND SURVEYING was conducted on April – May 2012

The aim of the course is to give the community students an awareness of the basics of the land surveying including plane table surveying, chain surveying, compass surveying and theodolite surveying. They were also given an introductory class on Total Station, the recent equipment used in land surveying.

ONE DAY WORKSHOP ON RESEARCH METHODOLOGY AND RECENT SOFTWARES IN CIVIL ENGINEERING conducted on 6th July 2012

The aim of the workshop is to strengthen the research capabilities of the participants, to provide skills in research methodology allowing the participants to initiate research, to participate in research and to critically appraise research findings and to provide an insight into the recent softwares used for research in civil engineering.

SEMINAR ON STEEL UPDATE was conducted on 1st March 2012

The process of steel making has evolved over a period of time; and so have the products. TOR and mild steel were the most commonly used varieties of steel bar for a long time. However, the arrival of thermo mechanical treatment (TMT) technology in the last decade practically replaced these varieties. TMT steel bars with a hard outer cover and soft core outclassed its predecessors in every parameter such as yield strength, ductility which imparts earth-quake resistance, weldability, bending ability, bonding strength and corrosion resistance. Metrolia was the first company in Kerala to employ the patented German technology for manufacturing TMT steel bars. The aim of the seminar was to give an awareness of the various processes involved in the steel manufacture and the application of the Metrolia steel in Indian industries.



Civil Engineering Students @ Marian Construction Site

COMPUTER SCIENCE & ENGINEERING INFORMATION TECHNOLOGY

CONGRATS TO STAFF & STUDENTS OF COMPUTER SCIENCE FOR EDGING THE
HIGHEST PASS PERCENTAGE IN UNIVERSITY OF KERALA

Vincent Morris, Managing Director, Fin ware Technologies presented a talk on "Android" for the final year students on 25-01-2012.



Participants of DB2 Workshop

IBM conducted a DB2 9.7 Certification Workshop for the staff and students of CS / IT Department from 16-03-2012 to 18-03-2012 (3 days). Finally they conducted the main Certification Exam for the same on 24-03-2012. Altogether 67 students and seven faculty members wrote the exam. Out of them 77.6% students and 85.7% faculty qualified.



IBM Training Programme

Sheeja Agustin, Asst. Prof of Computer Science Department attended a two week ISTE Workshop on "Introduction to Research Methodologies" from 25-06-2012 to 4-07-2012 at Mar Baselios College of Engineering, Trivandrum. The workshop mainly focused on doing research, productive thinking, effective and efficient communication, stress and time management etc.



Seminar on Artificial Neural Networks

Dr. M. Wilcy, Head of Department, Mtech Computer Science, University of Kerala, Karyavattom presented a seminar on Artificial Neural Networks on 4-06-2012. She introduced what is Neural Network, differentiated biological and artificial neurons and she presented applications of Artificial Neural Network in Pattern recognition. All final year students and staffs of the department attended the seminar.

ELECTRONICS & COMMUNICATION APPLIED ELECTRONICS & INSTRUMENTATION

Project Expo 2012

On July 5th, 2012 the present final year students of ECE & AEI Department had conducted a venture to show their talents and creative ideas through Project Exhibition. This was inaugurated by The Manager and Bursar along with Principal. All the students of the department as well as other departments were given a chance to share their views.



Second Prize - Automatic Headlight Control for Automobiles

The best project was awarded to "Robotic Arm with Spy Cam", done by Vijin D'Cruz, Alex Joseph, Reynu Gomez and Vishnu K.R (E C Dept.). The second prize was awarded to "Automatic Headlight Control for Automobiles", done by Athul Sebastian, Fathima Asaf, Pratheek Gopalakrishnan and Seenu Joseph (AEI Dept.). "Intelligent Car Braking System" took the third position, the work was done by Anju G. Nair, Bonny Benny, Hena A. R and Rinju Alice John (AEI Dept.) The prize winners were cash awarded and the news about "Robotic Arm with Spy Cam" was published in the news paper.

Talk by Famous Personalities



Dr.D Radhakrishnan, Professor, State University of New York, USA had shared his experience about higher studies abroad and an interactive session was arranged for the students of S7 Electronics & Applied Electronics with him.

Research Pursuits

The Research and Development activities have taken wings to flight under the able leadership of **Prof. Dr. M. Sasikumar** (HOD of EC and AEI Dept.) and **Prof. Dr. R.S. Moni**.

Paper Presentations



Ms. Minnu Jayan.C, presented paper on 'Modeling of Quadruplex BLDC Motor Actuator Based Position Servo System' (ICETCT-2012) on 09-04-2012, at Maria College of Engineering & Technology, Thiruvattar. She was given the 'Best Paper Award'.



Third Prize - Intelligent Car Braking System

Student Achievements

Our Best outgoing Students of S8 AEI, Parvathy S.B, Aswathy R.P and Sinu S. Mariam, Liya Thadevius of S8 EC had been Gate qualified. Our Students of S7 EC & AEI, Mithun C.A, Vijay Krishnan, Avinash P.R, Aswin H, Vijin D'Cruz, Amal S.D and Vishnu K.V had participated in "DHANAK", an intercollege fest conducted by IHRD College of Engineering, Attingal and had won 2nd prize.

First Prize



Scholars engaged in Research



Ms. Subha P S



Ms. Ramola Joy



Ms. Reshma Lakshmi C

AICTE has given approval to begin M.Tech programme in "Signal Processing".

List of Journals and Periodicals in MEC Library

International Journal of Electrical Engineering, International journal of Electronic & Communication Engineering, International journal of Electronic & Electrical Engineering, International journal of Electronic Networks, Devices and Fields, International journal of Electrical and Computer Engineering, International journal of Microcircuits and electronic, International journal of Photonics, International journal of Industrial Electronics and Control, International journal of Fluid Engineering, International journal of Mechanics Structural, International journal of Industrial Engineering and Technology, International journal of Civil/Mechanical Engineering, International journal of Engineering Research and Technology, International journal of Mechanics AND Thermodynamics, International journal of Genetic Engineering and Biotechnology, International journal of Nano Sciences and Nanotechnology, International journal of Material Physics, International journal of Chemistry and Applications, International journal of Physics and Applications, International journal of Fisheries and Aquaculture Science, International journal of Computational Science and Mathematics, International journal of Mathematics Research, International journal of Wireless Networks and Communications, International journal of Information & Computation Technology, International journal of Software and Computer Aided Engineering, International journal of Computer and Internet Security, International journal of Information Science and Application, International journal of Networks and Applications.

Electronics for you, Linux, Pc Quest, Chip, Digit, Foundry, Industrial Automation, Techno First, ATZ - Auto Technology, Technology Focus, Executive Knowledge Lines, Green Energy, Energy Manager, Journal of Energy Manager, Journal of Engineering Education, AIMS International Journal of Management, Construction Review, Indian Management, Business India, Journal of Manufacturing Technology, Time, India Today, Employment News, Competition Success Review, Vacancies for You, Assignment Abroad Times, EDU

IEEE : <http://ieeexplore.ieee.org>

ASCE : http://ascelibrary.org/journals/all_journal_titles

ASME : <http://asmedl.aip.org/journals/doc/ASMEDL-home/jrnl/>

Mc Graw Hill : <http://2.accessengineeringlibrary.com>

ASTM : <http://enterprise.astm.org>

SCIENCE DIRECT : <http://www.sciencedirect.com>

MECHANICAL ENGINEERING

Four Expert Lecture for S8 Students have been organised (2008-12 batch) from Industries

- (i) Dr R Ramesh Kumar (VSSC): Thermal Protection System of RLV on 14/12/11
- (ii) Dr Harikrishnan (VSSC): Reaching Space on 15/02/12
- (iii) Mr. Senthil Kumar (LPSC): Rocket Propulsion on 29/02/12
- (iv) Mr. Khadiravan (CADD CENTER): Product Life Cycle on 20/03/12

Two M.Tech courses was sanctioned in our department by University of Kerala and approved by AICTE. Commencement of Machine Design and Thermal Engineering classes is just awaited.



Project of Final Year Students

Industrial Visit for S8 students (2008-12) to Euro Marine Products Ltd, Puthenthope, Trivandrum on 15/03/12

An advanced worldwide teaching course was taken on April 13th 2012 by Mr. Arun J (A.P., Dept. of M.E, MEC). The course consisted of familiarizing the program and the code for using the numerical controlled equipments using a virtual class room technique.

Remedial programme for the weak students was started for S3 students to S7 Students of our department under the coordination of Mr. Ullas Innocent Raj



Nature club is actively working in our department and new herbs have been planted in Department of Mechanical Engineering

BASIC SCIENCE & MATHEMATICS

"GOD PARTICLE -2012" by Prof. N. Chandrasekharan Pillai (Head Of Department, Physics)



The Universe is a grid work of mass, 90 % of which we cannot observe. The little we observe actually forms the minute part of the great mass. Something is forming the base of the huge mass of planets, galaxies and other heavenly bodies. There is a particle predicted over 40 years ago by a theoretical Physicist Peter Higgs, that particle, Physics says, is the base of Universe. Its entrapment in the Large Hadron Collider at CERN gives us a glimpse of how the Universe works. It is called God Particle by media and others, but scientist would prefer to call it is as 'goddamned particle', the reason is it is the most elusive of any sub-atomic particle. The Higgs Boson has a short life. It lasts for one millionth of a billionth of a billionth second. This is the reason it is so God damned, hard to trap. Evidence of its existence is seen by, what it leaves behind the collider, rather than its actual capture. Higgs Field Theory explains why some elementary particles have mass- suggesting that an unseen field permeates all of space and the Higgs Boson is the smallest possible activity in that field. With the discovery of elementary particles and sub-atomic particles, the smallest of the small becomes sub-atomic particle. Now with the discovery of Higgs Boson, the smallest of the small is, of course, the Higgs Boson.



MCRD-Marian Centre for Research and Development

by Dr. R.S.Mony, Department of ECE



One of the long cherished dreams of His Excellency, Dr. A. P. J. Abdul Kalam, our former President and great visionary of modern India, is that India becomes a leader in the field of technology, as this is the only way to make our Nation great, by wealth and good life. According to him, Indians compared their counterparts elsewhere have the advantage of generating integrated concepts, developing sound ideas and above all working hard with spiritualization embedded, which the developed countries are lacking. With this advantage, a technological push remains the only requirement to take India to prosperity. The driving force to create this technological strength will undoubtedly come from technical education, by which engineers have to be trained continuously in new technologies. Unlike conventional education, engineering education has to be futuristic. It has to impart skills of tomorrow and not that of yesterday.

What is the most important resource for the realization of the above challenging mission? The teachers are indeed the creators of such a technological force. The life line of technical education is the quality of teachers. The way to improve the quality of teachers is by involving them in Research and Development activities, which leads to continuous generation and re-generation of knowledge. Good teaching and good research are inseparable and re-enforce each other. The national policy on education emphasizes the need for R & D activities in Technical Institutions.

At present, R & D work in Technical Institutions are confined to IITs, NITs and a few good engineering colleges and Universities only. The rapidly growing number of private Engineering Colleges could share the task to improve the system and the society at-large. Quite a few of them have well qualified faculty and necessary infrastructure facilities to pursue R & D activities. We in Marian Engineering College strongly believe that our Institution is one among them. In this pursuit, we propose to establish a Centre to facilitate R & D activities among the staff & students. Moreover, many of the student projects are found to be useful for the industry if they are refined to meet their specifications. The proposed centre can act as a link between Industry & Institute and promote technology incubation among the students.

Glimpses of MARIAN Glory

Those who try to lead the people
can only
do so by following the rules

Marianites stood proudly at the august assembly, celebrating our decennial year. As we completed ten years, we are delighted by our own



Tejesvi - 2011 - Inaugurated by Dr. Sooniya Krishnamoorthy



Inauguration of Decennial Celebration by Prof. K.V. Thomas

the marginalized members of the society, specially the members of Latin Catholic Community. This is not an easy task. It is a hard task. Here comes God's Blessings in the living persons of our faculty members who really work so hard to bring them to main stream of our society. Our faculty members are so committed to this hard task and this is the secret of our success.

achievements. Over the years the college has evolved in to a citadel of holistic training. Ever since its inception, in 2001, we had a long history of struggle and also a long history of success. Struggles are part of the game but the achievements, are really heartening. We had to struggle because we stuck on to certain principles and values. There are moments in our life when we are so delighted and felt so happy. As we turn back we cherish the good memories when University results came out and the students rushed to their faculty members to share their joy. When students in EC dept & Civil Dept. got University ranks the whole college was thrilled. The Marian Engineering College has a good name of our own and a good number of quality students come in. However, when we started the college, the founding fathers had a vision of uplifting the poor and



Medical help by Santhwanam Marian



Declaration of ISO Certification



Record Breaking Blood Donation Camp by Marian Family



Blood Donation Drive - Inauguration by Mr. Venugopal



Celebrations @ Marian Campus



Prize Distribution of Basketball Tournament by Oly. Bobby Aloysious

We celebrated Decennial Year on 9th Mar'12.

The Chair person of the gathering was Most Rev. Dr Soosa Pakiam, Archbishop of Trivandrum. Guests of Honour were Prof. K.V.Thomas, Hon. Minister for Food, Consumer Affairs & Public Distribution, Rt. Rev. Msgr. Eugene H. Pereira, Vicar General, Adv. Sampath M P, Sri. V. Sasi MLA, Dr. Jolly Jacob, Syndicate Member of Kerala University, Dr. A. V. George PTA representative and Mr. Shameer Thaha, our first batch student. The presence of our former Principal Dr. I. Nelson Joseph and our former bursar Rev. Fr. Bhaskar thrilled the audience. Rev. Msgr. A.George Paul welcomed the gathering after briefing the college history. His Grace Most Rev. Dr. Soosapakim M. delivered the Presidential Address. Prof. K. V. Thomas formally inaugurated the function by lighting the lamp followed by the inaugural address. Msgr. Eugene H. Pereira declared the ISO certification of our college. The CD of the journey of our college was released by Adv. Sampath M. P. The inauguration of the new academic year projects was done by Sri. S. Mony MLA. The new college Anthem composed by Rev. Fr. A.R.John was released by Dr. Jolly Jacob. As we all know, we are privileged to have a Bursar who is also a writer and his 9th book was released on the very same day by our Archbishop. The whole function was concluded with Vote of Thanks by the Principal Prof. Tomy Michael.



on 28 / 06 / 2012

MARIAN
ENGINEERING COLLEGE

