



TEJUS

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NEWSLETTER OF COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Dr. K. Poullose Jacob assumes charge of Cusat VC

Dr. K. Poullose Jacob, Pro Vice Chancellor, Cusat took over the charge of Vice Chancellor on 04 January 2014, FN, as per orders of His Excellency the Governor of Kerala & the Chancellor of the University.

This follows Dr. Ramachandran Thekkedath relinquishing the post of Vice Cha-

ncellor on completing his term on 03 January 2014, AN. Dr. K. Poullose Jacob who

has served as Head, Department of Computer Science as well as Dean, Faculty of Technology had taken charge as



2013.

A National Merit Scholar all through, Dr. K. Poullose Jacob joined the service of

Pro-Vice Chancellor of Cochin University of Science and Technology on 26 June,

Cochin University as a Lecturer in 1983, after being part of the R & D team of a Computer peripheral manufacturing industry for one year. His was the first Ph.D. in Computer Engineering from the Cochin University of Science and Technology. He has been serving as the Professor of Computer Science of Cusat since 1994.

Cusat Students Amenity Centre inaugurated

A new Students Amenity Centre built at a cost of Rs. 8.28 crores was inaugurated by Dr. Shashi Tharoor, Hon'ble Minister of State for HRD, Govt. of India on 21 November 2013. During his inaugural speech he said that the key to excellence in world ranking is research for cutting-edge technology. In addition to the government, corporates have a duty to extent support to Uni-



versities in conducting top-end research on deserving areas. Cochin University deserves to be known on a national level and the

HRD Ministry is doing all in its power to upgrade the University to an Indian Institute of Engineering Science & Technology (IEST),

he added. Cusat Vice Chancellor Dr. Ramachandran Thekkedath presided over the function which was held at SMS Auditorium. Dr. K. Poullose Jacob, Pro-Vice Chancellor welcomed the gathering. Sri. Hibi Eden MLA, Prof. Dr. K. Sajan, Syndicate Member and Dr. A.B. Bhasi, Controller of Examinations and Registrar (i/c) spoke on the occasion. The total area of the centre is 3795.44 M².

Editorial...

While greeting my colleagues in this new assignment of leadership of this great institution which has hand-held me during the last three decades or a little more, I feel greatly humbled and honoured; numerous people have guided and supported me along the way. It has always been an honor to walk into a



Cusat community. We as a family shall take pride at being in Cusat. Our fiscal deficit though staring at us with some rigour, there has been

prepare an educated and productive workforce through a concerted effort to improve the quality and relevance of higher education. The International Labour Organization (ILO) has predicted that by 2020, India will have 116 million workers in the age bracket of 20 to 24 years, as compared to China's 94 million. It is estimated that the average age in India by the year 2020

capacities and (d) there will be a greater focus on research and innovation.

This new paradigm could be a guiding spirit for the future planning of this institution. A road-map based on this guideline needs to evolve. The new flagship scheme of the government, the RUSA, a centrally sponsored scheme for higher education which will be spread over two plan

A Transformation in the Offing...

classroom and help students critically think about the topic they have chosen to study. It is not enough to train today's workforce, we need to prepare for tomorrow's, by guaranteeing every student of ours, world class education. It requires everything from more challenging curriculums and academic programmes administered in a congenial environment, to better support to teachers and the administrative personnel. A complacent workforce is the key to productivity. Today we need to talk to the people around us in one voice, to the society and to the nation that we are in the unbridled path of progress. Today in Cusat a researcher spent extra hours in his or her lab and did his/her part to lift our h-index still higher. Our supporting infrastructure gets constantly updated to state of the art, thanks to the joint effort of all the constituents of the

encouraging gestures from the state executive which has helped some improvement. What causes pain in us is the misguided strides of some students, though very few, forgetting the lofty aspirations of their parents. Indiscipline of any kind needs to be put down in the larger interests of the student community who have entered this campus through merit based filtering.

The depleting faculty strength, though owing to nature's phenomenon, has been a cause of great concern to all of us as much as our well wishers; we would be failing in our mission if we still postpone refill. Emeritus assignments need to be encouraged in the larger interest of academic well being. In the third quarter of this New Year, we would be assessed by the NAAC, I have the confidence that our concerted effort would be rewarding.

We must strive to

will be 29 years as against 40 years in USA, 46 years in Japan and 47 years in Europe. In fact, we have more than 60% of our population in the age group of 15 to 59 years.

A paradigm shift has been proposed by the Planning Commission in the arena of funding of the state higher education system. Greater emphasis will be laid on the improvement of the teaching learning process in order to produce employable and competitive graduates, post-graduates and PhDs. With respect to the planning and funding approach, some key changes are envisaged; (a) funding will be more impact and result oriented, (b) various equity related schemes will be integrated for a higher impact, (c) instead of unplanned expansion, there will be a focus on consolidating and developing the existing system by adding

periods (XII and XIII) has been announced. We have responded to the indicative invitation from the State Higher Education Council by submitting a proposal under RUSA, projecting a total outlay of around 280 crores of rupees. It will be assessed based on key principles of performance-based funding, incentivizing well performing institutions. We need to perform, there is no alternative; let us join hands.

Professional management is something which we need to focus upon; our efforts at e-governance with substantial funding from the state government, ideally would simplify administrative processes to enable swift decisions as well as prompt services. Hopefully, a transformation is in the offing!

Let us hope for a prosperous tomorrow

Dr. K. Poulouse Jacob



Dr. Avinash Chander, Scientific Advisor to Defence Minister and Director General, DRDO inaugurating the Symposium on Ocean Electronics (SYMPOL-2013) organized by the Centre for Ocean Electronics, Dept. of Electronics, Cusat. Cusat Vice Chancellor Dr. Ramachandran Thekkedath is looking on.

systems and communication satellites for real-time multi-mode information was the need of the hour.

For a blue-water navy, deep-sea security capability requires many challenging technologies like large autonomous underwater vehicles, underwater surveillance, ultraviolet navigation and blue-green submarine communication. "We need to develop deep-sea sonar that operates in extreme ocean depths, in the so-called 'deep sound channel', to detect quiet enemy submarines from thousands of miles", he said.

Sympol founder - Chairman Prof. K.G. Nair, founder Vice Chairman Prof. C.S. Sridhar

Chinese satellites scanning Indian waters: DRDO Chief

As many as 19 Chinese surveillance satellites are monitoring the Indian waters as the region is emerging as one of the world's most strategic areas in the 21st century, Dr. Avinash Chander, Scientific Advisor to Defence Minister and Director General, DRDO said on 23 October 2013.

He said India needed to create capabilities to counter or neutralize the information that is being transmitted through these satellites. "We need to develop technologies to monitor our waters in all the three dimensions", he said while inaugurating a three-day symposium on Ocean Electronics (SYMPOL-2013) organized by the Centre for Ocean Electronics, Department of Electronics, Cochin University of Science and Technology.

"India will need 80-100

satellites that can be deployed in formation within hours or in a day. It is time to revisit our surveillance strategies. The West is of course, more advanced," he said.

Chander said maritime domain awareness, providing seamless coverage of areas of interest that demands intelligent synergy among many platforms like unmanned aerial vehicles, space-based indigenous navigational

"We need to develop deep-sea sonar that operates in extreme ocean depths, in the so-called 'deep sound channel', to detect quiet enemy submarines from thousands of miles. It is time to revisit our surveillance strategies"

and Technical panel Chair D. Srinivasan were honoured with lifetime achievement awards at the function.

Around 50 original research papers and four state-of-the-art special invited talks on emerging topics were presented at the symposium. Cusat Vice Chancellor, Dr. Ramachandran Thekkedath, DRDO Director General (Naval Systems) V. Bhujanga Rao, Naval Physical and Oceanographic Laboratory Director, S. Ananthanarayan and Joint Oceans Advisory Board Chair Albert J. Williams attended the function, besides Smt. Tessy Thomas, the head of India's prestigious Missile project. Prof. C.K. Anandan, Professor and Head, Department of Electronics welcomed the gathering and Dr. M.H. Supriya, Co-ordinator, SYMPOL 2013 proposed the vote of thanks. ■



Dr. Shashi Tharoor, Hon'ble Minister of State for HRD, Govt. of India, inaugurating the Students Amenity Centre. Dr. K. Sajan, Registrar (i/c), Dr. K. Poulouse Jacob, Pro-Vice Chancellor, Dr. A.B. Bhasi, Controller of Examinations, Sri. Hibi Eden M.L.A. and Cusat Vice Chancellor Dr. Ramachandran Thekkedath are also seen.

Malnutrition a major problem: Prof. K.V. Thomas

A major problem faced by the country is malnutrition, according to Prof. K. V. Thomas, Minister of State for Food and Civil Supplies. Around 25% of the country's population does not get even one meal a day, he added while delivering the Lecture on Food Security Act 2013 organized by the Economics Association, Dept. of Applied Economics, Cusat. The Food Security Act is an effect of the government's gradual move from social measures to empowerment with legal rights in the matter of food, just like right to information, health, education

and employment. The Food Corporation of India which procures 30% of the food grains produced in the country ensures that the farmer gets a basic price for his produce. The government has succeeded in raising the annual procurement capacity of FCI from 55 mt to 75 mt. Cusat Vice Chancellor Dr. Ramachandran Thekkedath presided over the function while Dr. K.C. Sankaranarayan, former Head, Dept. of Applied Economics, Dr. P. Arunachalam, Head, Dept. of Applied Economics and Dr. R.M. Amruthraj also spoke.

Dr. A. Ramachandran vacates the post of Registrar

Dr. A. Ramachandran vacated the post of Registrar, Cusat after completing his term on 30 November 2013. He had joined as the Registrar on 01 September 2004. Dr. Ramachandran passed with first rank from All India Agricultural Research Service in 1984 and joined CIFT. He



worked as Reader at School of Industrial Fisheries, C u s a t from 1992. He was also the Controller of Examinations

Dr. K. Sajan assumes charge of Cusat Registrar



Dr. K. Sajan, Professor, Dept. of Marine Geology and Geo Physics and Syndicate Member, Cochin University of Science and Technology assumed charge of Registrar (i/c) of Cusat on 01 December 2013.

Dr. Sajan is the Dean of the Faculty of Marine Sciences and an expert member of SEAC of the high power state level Environment Impact Assessment Authority, Govt. of Kerala.

He is an acclaimed scientist in the areas of Estuarine & Marine Geo-Chemistry and Sedimentology as well as Mangrove eco-system.

from August 2002 to August 2004. He will continue as Director, School of Industrial Fisheries, Cusat.

He is a member of Kerala Coastal Zone Management Authority and also a member of Scientific Panel of Fish and Fisheries Products.

Cusat VC: Dr. Ramachandran Thekkedath vacates the post



Dr. Ramachandran Thekkedath, Vice Chancellor, Cochin University of Science and Technology, vacated the post on 03 January 2014 on completion of his term. He took charge as the 12th Vice Chancellor of Cusat on 04 January 2010. Having extensive research and development experience in physics, lasers, medical devices and bio-instrumentation, Dr. Ramachandaran is the first alumnus of Cusat to become the Vice Chancellor of Cusat.

A native of Pattambi in Palakkad district of Kerala he completed his M.Sc. and Ph.D in the Department of Physics, Cusat. During his tenure the Inter University Centre for Nano-materials and Devices (IUCND), Inter University Centre for Development of Marine Biotechnology (IUCDMB) and Inter University Centre for IPR Studies were established. The University library was fully digitalized and Cusat became the first University to host 'Shodhganga' a collection of digital theses. Two new courses including M.Tech were started. Honorary Doctorates were awarded

to three famous personalities E. Sreedharan, DMRC Chief Advisor, Kalamandalam Ramankutty Nair, and K.G. Balakrishnan, former Supreme Court Chief Justice. The Construction of Science Seminar Complex, Software Engineering Block, Marine Cadets Hostel, Cusat Auditorium etc. were completed during his period of service.

Dr. Ramachandran was a post-doctoral fellow at the University of Utah, Salt Lake City, USA with the world renowned Artificial Heart Programme. He has been an investigator for several research projects, funded by National Institute of Health, Before going to USA, Dr. Ramachandran also worked as a Senior Scientist at Sree Chitra Thirunal Institute for Medical Sciences and Technology, Thiruvanthapuram where he developed several new technologies based on lasers for clinical applications.

Send-off for Cusat VC

Dr. Ramachandran Thekkedath, who completed his term as Vice Chancellor of Cochin University of Science and Technology was given a warm send-off by University employees at a simple function held at the Senate Hall of the University. Dr. K. Poullose Jacob, Pro-Vice Chancellor presided over the function. Dr. K. Sajan, Registrar (i/c) welcomed the gathering. Felicitations were offered by Sri. Sebastian Ouseph, Finance Officer, Dr. A.B. Bhasi, Controller of Examinations, Dr. S. David Peter, Director, IRAA, Dr. K. Vasudevan, Dr. Sunil K. Narayanankutty, Sri. Anil Radhakrishnan, Sri. Subin George Thomas and Dr. K. Ajitha. A memento was presented to Dr. Thekkedath by the Pro-Vice Chancellor. Sri. K.V. Mohanan, PS to the Vice Chancellor proposed the vote of thanks.



Dr. Ramachandran Thekkedath is seen with Sri. K.V. Mohanan, Dr. A.B. Bhasi, Dr. K. Poullose Jacob, Sri. K.M. Ibrahim, Dr. G. Madhu, Dr. K. Sajan and Sri. Sebastian Ouseph after a farewell meeting in his chamber.

Maritime University Under Consideration - K. Babu



Sri. K. Babu, Hon'ble Minister for Fisheries, Ports & Excise inaugurating the extension to the Cadets Hostel at K.M. School of Marine Engineering. Dr. A. Ramachandran, Registrar, Prof. K.A. Simon, Director, Dr. A. Mujeeb, Syndicate Member, Dr. K. Poullose Jacob, Pro-Vice Chancellor, Cusat Vice Chancellor Dr. Ramachandran Thekkedath and Sri. Hibi Eden, MLA, Syndicate Member are also seen.

The Government of Kerala is considering the establishment of a Maritime University in the state to exploit the scope for maritime education and industrial projects, according to Sri. K. Babu, Hon'ble Minister for Fisheries, Ports &

Excise. Initially a Maritime Institute has been established at Neendakara, Kollam and a campus at Kodungalloor, he said. The favourable conditions for maritime industry has not been utilized by the state, he added. The Minister was speak-

ing after inaugurating the extension to the Cadet Hostel at K.M. School of Marine Engineering and the Canteen building at School of Engineering on 15 November 2013. Cusat Vice Chancellor Dr. Ramachandran Thekkedath presided over the inaugural function where Dr. K. Poullose Jacob, Pro-Vice Chancellor, Syndicate Members Hibi Eden, MLA, Dr. A. Mujeeb and Dr. G. Madhu, Dr. K.A. Simon, Director, K.M. School of Marine Engineering, Dr. A. Ramachandran, Registrar participated. The Cadet Hostel built at an expense of Rs. 2.71 Cr. can accommodate 60 cadets. The canteen that can seat 175 students was built at a cost of Rs. 90 lakhs. ■

Ship Tech. student lands job at Mitsubishi



Jemerson P. James, a B.Tech. (Naval Architecture & Ship Building) student at Cochin University of Science and Technology's Dept. of Ship Technology has been placed at Mitsubishi Heavy Industries, Japan which operates one of the world's largest shipyards. The job comes with a pay package of Rs. 28 lakhs per annum. Jemerson received the placement offer after undergoing a training programme at Mitsubishi's head-quarters in Japan for which he was selected through an interview conducted at the Department, according to Dr. K. Sivaprasad, Head of the Department & Placement Coordinator. ■

Eritrean Team Visits Cusat

An Eritrean delegation including Dr. Zekeria Abdukerim, Dean, College of Marine Science & Technology, Massawa, Eritrea, North East Africa and Prof. D.D. Nambudiri visited CUSAT on 10 October 2013. The delegation met Cusat Vice Chancellor, Dr. Ramachandran Thekkedath, Dr. A. Ramachandran, Registrar and Dr. S. David Peter, Director, IRAA and held dis-

cussions about future collaborations in higher education. They expressed their interest in the fields of Industrial Fisheries, Marine Sciences, Biotechnology, Marine Engineering, etc. The Eritrean delegation also explored the possibilities of faculty and staff training, faculty - student exchange, joint research and other areas of mutual interest.



Dr. Zekeria Abdukerim, Dean, College of Marine Science & Technology, Massawa, Eritrea and Prof. D.D. Nambudiri having discussions with Cusat Vice Chancellor Dr. Ramachandran Thekkedath. Also seen are Dr. K.A. Simon, Director, K.M. School of Marine Engineering, Dr. Sarita G. Bhatt, Head, Dept. of Bio-Technology and Dr. A. Ramachandran, Registrar. ■

Violence against women: Laws to be enforced - National Human Rights Chief

Although the laws protecting women from violence exist, we have not succeeded fully in enforcing them in the country, according to Justice K.G. Balakrishnan, Chairman, National Human Rights Commission (NHRC). The discrimination faced by women today is similar to those based on race, caste, etc.

He was delivering the inaugural address at the National Seminar on "Women Empowerment, Media and Human Rights" organized by Cochin University of Science and Technology in collaboration with National Human Rights Commission. Women can enjoy total freedom only when they have economic freedom. Women's organizations should go

forward in the struggle for social and economic equality, he added.

Dr. K. Poulouse Jacob, Cusat Vice Chancellor (i/c) presided over the function. Justice

Cyriac Joseph, Member, NHRC, Dr. Parvinder Sohi Bihuria, Prof. Nanda Kishore Acharya, J.S. Koacher, Dr. S.K. Shukla and Prof. K. Vanaja spoke on the occasion.



Justice K.G. Balakrishnan, Chairman, National Human Rights Commission inaugurates the National Seminar on Women Empowerment, Media and Human Rights. (from left) Dr. K. Poulouse Jacob, Vice Chancellor (i/c), Cusat, Prof. Nanda Kishore Acharya, Dr. S.K. Shukla, Justice Cyriac Joseph, Prof. K. Vanaja and Dr. Parvinder Sohi Bihuriya.

Strengthen research in advanced materials: Dr. K. Poulouse Jacob

As a part of the Golden Jubilee year celebrations, the Department of Physics, Cochin University of Science and

Technology in association with Materials Research Society of India (Trivandrum Chapter) organized a national workshop

on "Advanced Materials" (AM-2013) on 31 October 2013, which was inaugurated by Prof. K. Poulouse Jacob, Pro-Vice Chancellor, Cusat. During the inaugural speech he stated that our country has to further strengthen research in the area of new materials since our natural material resources are decreasing day by day.

Prof. B. Pradeep, Head, Dept. of Physics delivered the welcome speech and Dr. M. Junaid Bushiri proposed the vote of thanks. Prof. Godfrey Louis and Dr. U.T.S. Pillai offered felicitations during the inaugural session.



Dr. K. Poulouse Jacob, Pro-Vice Chancellor, Cusat, delivers the inaugural address at the National workshop on Advanced Materials. Dr. M. Junaid Bushiri, Workshop Convenor, Prof. B. Pradeep, Head, Dept. of Physics, Dr. U.T.S. Pillai, Chairman, MRSI - Trivandrum Chapter and Prof. Godfrey Louis, Dean, Faculty of Science are on the dais.



Justice C.N. Ramachandran Nair delivers the inaugural speech at the panel discussion on the State Budget. Prof. P.A. Vasudevan, Dr. Mary George, Dr. M.A. Oommen, Dr. K. Sajan and Dr. Nirmala Padmanabhan are on the dais.

Entrust Tax Collection with Independent Agency: Justice C.N. Ramachandran Nair

The job of collection of taxes in the state should be entrusted with an independent agency and transactions through banks should be enforced to stem the flow of black money, according to Justice C.N. Ramachandran Nair, former Judge, High Court of Kerala and Chairman, Kerala Dam Safety Authority and Tenth State Pay Commission).

He was speaking after inau-

gurating the Panel Discussion on State Budget 2014, organized by the K.M. Mani Centre for Budget Studies, Cusat on 25 January 2014. Although the Government has the facility to impose different types of taxes, it fails to generate revenue from them, he added.

Tax defaulters should be strongly dealt with, regardless of their wealth or influence and he blamed the authorities

of being lethargic in taking such action. The Budget proposal to raise taxes on construction materials could adversely affect the growing infrastructure development sector and the creation of jobs should be taken up seriously. Budgets should be prepared with a view to reduce governmental expenditure and increased focus on social welfare. The Govt. should ensure that the VAT collected from consumers reaches its coffers as well as enforce the efficient functioning of check-posts, he said.

Dr. M.A. Oommen, Director, K.M.M.C.B.S. presided over the inaugural function while Prof. Lopus Mathew, Syndicate Member, Cusat and Member, Higher Education Council, Dr. K. Sajan, Registrar (i/c), Cusat, P.J. Johney, R. Krishna Iyer, Dr. Mary George, Vinod Mathew, P.A. Vasudevan, Dr. Jose Jacob, Dr. Nirmala Padmanabhan and Dr. Sabu Thomas addressed the gathering.

Stringent measures to be enforced for sustainability: Dr. K. Poulose Jacob

Stringent measures to enforce guidelines in compliance with statutory provisions to attain sustainability are the need of the hour according to Dr. K. Poulose Jacob, Vice Chancellor (i/c) Cochin University of Science and Technology.

He was speaking after inaugurating the National Workshop on Environmental Management: New Paradigm for Water, Sanitation and Sustainability, organized by Division of Civil Engineering, School of Engineering, Cusat on 23 January 2014.



Dr. K. Poulose Jacob, Vice Chancellor (i/c), Cusat inaugurating the National Workshop on Environment management. (from left) T. Arunkumar, Dr. K. Sajan, Registrar (i/c), Cusat, Dr. Vinod Tare, Dr. K.S. Beena and Dr. G. Madhu are seen.

Dr. Vinod Tare, Head, Gangga Action Plan (IIT, Kanpur), Dr. Sudhakar Yedla, (IGIDR, Mumbai), Dr. Leelakrishnan, Dr. G. Madhu, M.S. Mythili

(Chief Environmental Engineer, KSPCB), Dr. K.S. Beena, Jayachandran, T. Arunkumar and C.R. Neelakandan addressed the gathering.

Passing Out Ceremony at Marine Engineering held

The Passing Out Ceremony for the sixth batch of 30 four year B.Tech. Marine Engineering students was conducted in a colourful manner on 02 December 2013. L.B. Culas, Director, M/s. Transworld group of Companies, Dubai was the Chief Guest on the occasion. He was received with a befitting guard of honour. Cusat Vice Chancellor Dr. Ramachandran Thekkedath presided. Mr. L.B. Culas, a veteran Marine Engineer turned industrialist, in his address stated the Indian officers have made a name in world shipping due to their hard work and therefore he exhorted the passing out cadets to maintain the reputation with dedication to the profession and hard work. Capt. R. Venkat, CEO, M/s. Tradex Shipping Pvt. Ltd., Chennai



Mr. L.B. Culas, Director, M/s. Transworld group of Companies, Dubai delivering the inaugural address. (From left) Dr. K. Sajan, Registrar (i/c), Cusat, Dr. K. Poulouse Jacob, Pro-Vice Chancellor, Vice Chancellor Dr. Ramachandran Thekkedath, Capt. R. Venkat, CEO, Tradex Shipping Pvt. Ltd., Chennai and Dr. K.A. Simon, Director, K.M. School of Marine Engineering.

was the Guest of Honour. Course Certificates were handed over to the students by Dr. K. Poulouse Jacob, Pro-Vice Chancellor, Cusat. The function was very well attended by the marine engineering fraternity of Cochin. Prof. Dr. K.A. Simon,

Director, K M School of Marine Engineering, welcomed the gathering and Dr. K. Sajan, Registrar (i/c) of Cochin University proposed the vote of thanks. This was followed by a cultural programme by the students.

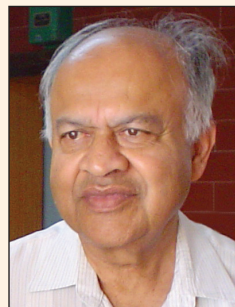
'Independent Thinking should be encouraged in Cosmology'

Renowned Indian astrophysicist and Cosmologist Dr. Jayant Vishnu Narlikar said that independent thinking should be encouraged in cosmology and youngsters have to think differently than believing in existing theories.

He was delivering a lecture on the topic 'Quasi-Steady State Cosmology' at Cochin University of Science and Technology on 30 November 2013. He added that the Standard Big Bang Cosmology theory about the origin of the universe is based on speculations and the Quasi-Steady Cosmology was based

on observations. Quasi-Steady State Cosmology (QSSC) was proposed in 1993 by

Fred Hoyle, Geoffrey Burbidge, and Jayant Narlikar. The theory suggests that the pockets of creation occurring over time within the universe, sometimes referred to as mini bangs, mini-creation events or little bangs, led to the formation of the universe, thus denying



Dr. J.V. Narlikar

the big bang theory which says creation of the universe was the result of an explosion.

"The Big Bang theory fails to explain certain facts related to the origin of the universe whereas QSSC could explain almost all the details. The Big Bang Theory is highly speculative," he said.

Prof. V.C. Kuriakose, Coordinator, IUCAA Resource Centre (IRC), Cusat welcomed the gathering and Prof. B. Pradeep, Head of the Department of Physics, proposed vote of thanks.



Dr. K. Poulose Jacob, Pro-Vice Chancellor, Cochin University of Science and Technology inaugurating the National Workshop on Seafood Safety and Trade.

Seafood Safety and Trade Workshop inaugurated

The three day National Workshop on Seafood Safety and Trade, conducted by the School of Industrial Fisheries, Cusat, was inaugurated on 17 December 2013 by the Prof. Dr. K. Poulose Jacob, Pro-Vice Chancellor, Cusat, at the Marine Sciences Auditorium, Lakeside campus.

Fish and fishery products exports of fish and fishery products exceeded US \$ 125 billion in 2012. Trade plays a major role in the fishery industry as a creator of employment, food supplier, income generator and contributor to economic growth and development. Sustained demands, trade liberalization policies, globalization of food systems and technological innovations have furthered the overall increase in international fish trade. Fish trade is still increasing, particularly from aquaculture in developing countries, and the entry onto the market of a more diverse range of value-added convenience products. Improvements in processing, packaging and

transportation as well as changes in distribution and marketing have significantly changed the way fishery products are prepared & marketed said Dr. A. Ramachandran, Director, School of Industrial Fisheries, Cusat. Prof. Dr. Saleena Mathew, Convenor welcomed the gathering and Dr. Mini Sekharan, Co - convenor extended the vote of thanks.

State Science Journalism Award to Dr. S. Anil Kumar

Dr. S. Anil Kumar Director, Public Relations & Publications, Cusat bagged the prestigious State Science Journalism Award. Dr. Anil Kumar, a winner of the State Development Journalism Award and Dr. C.P. Menon award for the best popular science book was the recipient of the Science Journalism Award for 1997 also.



Use sensible ideas for advanced constructions:

Dr. Poulose Jacob

The blind use of technology without sense or logic has led to the collapse of several modern constructions, according to Cusat Vice Chancellor (i/c) Dr. K. Poulose Jacob. The boom in real-estate prices forces the optimal use of land by erecting multi-storeyed buildings, which escalates the cost of construction. He was inaugurating a short term training programme on 'Advances in Concrete Technology & Special concretes' organized by the Civil Engineering Division of SOE, Cusat on 25 November 2013. The programme was organized under TEQUIP-Phase-II. Dr. G. Madhu. (Principal, SOE), Dr. Manu Sathanam, (IIT, Chennai), Dr. Beena, (Head, Division of Civil Engineering, SOE), Dr. Glory Joseph and Dr. Deepa Balakrishnan, (Co-ordinators) spoke on the occasion.

Faculty members of the University, IITs, NITs, experts from industries and practicing professionals in the subject areas took classes on Special concretes, Admixtures in concrete, protection of Concrete against corrosion, Waterproofing Technology, Mix-design procedures for Advanced/Special concretes, Port and Underwater Concreting and Restoration Techniques, etc.

Teachers from AICTE recognized colleges and polytechniques, engineers and managers from construction companies/ Builders and Practicing Engineers/consultants attended the training programme which concluded on 29 November.

Ph. D Awardees

Rajgopal G. Pai "Adhunik hindi natya sameeksha ek vislesh natmak adhyayan", (Dr. R. Sasidharan)

Roselin Alex "Bioremediation of hydrocarbons by lysinibacillus fusiformis btts 10", (Dr. M. Chandrasekaran)

Radhika R. "Implications of hydrobiology and nutrient dynamics on trophic structure and interactions in cochin backwaters", (Dr. C.H. Sujatha)

Reni George "Catalysis by enzymes immobilized on tuned mesoporous silica", (Dr. S. Sugunan)

Deepthi C.P. "Discrete time inventory models with/without positive service time", (Dr. A. Krishnamoorthy)

Nikitha Divakaran "Studies on the effect of polycyclic aromatic hydrocarbons in the life and activity of perna spp" (Dr. N.R. Menon)

A. John Chembian "Studies on the biology, morphometrics and biochemical composition of the ommatrephid squid, sthenoteuthis oualaniensis (lesson, 1830) of the south west coast of india" (Dr. Saleena Mathew)

R. Anil kumar "Vocational higher secondary education in kerala a status study of students, pass outs and training componenets" (Dr. K. George Varghese)

R. Nisha "Development of semi conductor metal oxide gas sensors for the detection of NO₂ and H₂S gases" (Dr. K.N. Madhusoodanan)

V.S. Hari "Design, development and realization of quadratic voltterra filters for selected applications" (Dr. V.P. Jagathy raj)

M. Haseeb "Development of zero water exchange shrimp culture system intergrated with bioremediation of detritus and ammonia - nitrogen" (Dr. I.S. Bright Singh)

Viji V. "Sanjeev ka upanyas: ek vishlesnatmak adhyayan" (Dr. N. Mohanan)

Biju Augustine P. "Influence of forecasting, planning, and controlling on the performance of small and medium enterprises" (Dr. M. Bhasi)

C.J. Praveensal "Modelling of work-related musculoskeletal disorders in chemical process industry in india" (Dr. G. Madhu)

J. Veena "Hindi ki samakaleen nareevadi alochana-ek adhyayan" (Dr. K. Vanaja)

Elizabeth George "A study on the effect of psychological empowerment on job satisfaction and job related stress among the bank employees" (Dr. K.A. Zakkariya)

Aneesh V. Pillai "Surrogacy under indian legal system: legal and human rights concerns" (Dr. V.S. Sebastian)

Shine N. Das "Design and development of efficient classification schemes for web content mining" (Dr. K.V. Pramod)

M.A. Sheena "Bharat vibhajan per kendrit hindi upanyasom ka vishleshnatmak adhyayan" (Dr. N. Mohanan)

K.S. Sunish "A marine actinomycete nocardiosis mccb 110 as source of novel drugs to manage vibriosis" (Dr. A. Mohandas)

Lalu P.P. "Numerical simulation of two-part underwater

towing system" (Dr. K.P. Narayanan)

A.J. Litta "Computational models for the prediction of severe thunder storms over east indian region" (Dr. Sumamary idicula)

Late. **P.T. Dipson** "Spatio-temporal changes in the wetland ecosystem of cochin city using remote sensing and gis" (Dr. M.V. Harindranathan Nair)

T.R. Gireesh Kumar "Source characterization of sedimentary organic matter in a tropical estuary, southwest coast of india: a biomarker approach" (Dr. N. Chandramohana kumar)

Rani Rajan "Palladium catalyzed carbon - carbon/ carbon - heteroatom bond formation reactions utilizing pentafulvene derived bicyclic hydrazines" (Dr. K.V. Radhakrishnan)

A.L. Laina "Voltammetric sensors for the determination of pharmaceuticals" (Dr. K. Girish kumar)

M. Sajimol Augustine "Investigations on novel polymer nano composites and bio-compatible manganese doped ZnS nanocrystals for photonic and bio-imaging applicaions" (Dr. S. Jayalakshmi)

K. Ranjit "Solar photo - oxidative disinfection for generating potable water from natural sources" (Dr. I.S. Bright Singh)

Eason M. Mathew "Synthesis and photochemical transformation of a few tethered barrelenes" (Dr. P.A. Unnikrishnan)

Gifty Oommen "Right to privacy and freedom of press - conflicts and challenges" (Dr. V.S. Sebastian)

V. Aysha "Document image segmentation and compression using artificial neural networks and evolutionary methods" (Dr. B. Kannan)

P. Parvathy "Impact of the sanitary and phyto sanitary agreement on the exports of marine products from india with special reference to Kerala" (Dr. D. Rajasenan)

P.K. Bipinbal "Preparation and characterization of micro and nano fiber reinforced natural rubber composites by latex stage processing" (Dr. Sunil K. Narayanankutty)

S. Sindhumol "Improved feature extraction and classification techniques for multispectral brain magnetic resonance images" (Dr. B. Kannan)

P.M. Deepulal "Ecotoxicological assessment of antifouling biocides in the sediments of cochin estuarine systems" (Dr. C.H. Sujatha)

Susarla Raghuram "Modelling

of ultraviolet and visible emissions in comets" (Dr. Anil Bhardwaj)

S. Priya Rajan "Curcumin and its derivative as antioxidants and dna intercalators" (Dr. P.V. Mohanan)

C.K. Haridevi "Spatial and temporal variation of phytoplankton community and their growth limiting factors in cochin backwater" (Dr. C. Revichandran)

P.J. Laija "Shailesh matiyani ka upanyas: ek anuseelan" (Dr. K. Vanaja)

P.P. Mini "Rashtriya swasthya bhima yojana- comprehensive health insurance scheme (rsby-chis) in Kerala: a study on the effectiveness and utilization of the scheme with special reference to Ernakulam and Wayanad districts" (Dr. P. Arunachalam)

G. Sreelekha "Photonics based application of substituted poly

phenylenevinylene in solutions and free standing films" (Dr. C.P. Girijavallabhan)

Teena Thomas "Nav au-paniveshik sandarb mein samakaleen kahani: ek vishleshan" (Dr. M. Shanmughan)

Hysen Thomas, "On the tailoring of magnetic properties of Fe-based alloy thin films by swift heavy ion irradiation and thermal annealing" (Dr. M.R. Anantharaman)

Ajalesh B. Nair "Ethylene-propylene-dinene terpolymer/hexafluoropropylene-vinylidene fluoride elastomeric composites: thermal, mechanical and microwave properties" (Dr. Philip Kurian)

Jasmine Koshy "Studies on extracellular enzyme production during growth of pleurotus sp. On lignocellulosic agri-waste and the utilisation of pent mushroom substrate" (Dr. Padma Nambisan)

Cancer can be prevented through lifestyle: Dr. Ramachandran Thekkedath

Cancer can be prevented by following a perfect lifestyle, said Cusat Vice Chancellor Dr. Ramachandran Thekkedath. Dr. Ramachandran

was speaking at a Breast Cancer Awareness campaign conducted jointly by Department of Youth Welfare and Cochin University Women's

Welfare Organization, on 05 December, 2013.

Dr. Thomas Varghese, Oncologist, Renai Medicity Hospital, who led the programme said that the most important factor about cancer is to identify it as early as possible. Now a days breast cancer is found among gents also, he added.

Dr. K. Poulouse Jacob, Pro-Vice Chancellor, Cusat, Dr. Sunil K. Narayanankutty, Head, Dept. of Polymer Science and Rubber Technology, Dr. P.K. Baby, Director, Youth Welfare and Dr. K. Ajitha, President, CUWVO spoke.



Cusat Vice Chancellor Dr. Ramachandran Thekkedath is inaugurating the breast cancer awareness campaign. (from Left) Dr. Sunil K. Narayanankutty, Dr. Poulouse Jacob, Dr. Thomas Varughese, Dr. P.K. Baby and Dr. K. Ajitha are seen.

Cusat Annual Sports: Over-all Championship for SOE

The Over-all Championship for the 31st Inter-Collegiate Track & Field and Games Meet organized by Cochin University of Science and Technology was bagged by School of Engineering, Cusat. The individual championship for men was won by M.M. Rishal, School of Engineering, Cusat and that for women was shared by Sheryl Thomas of College of Engineering, Kalloppa and Navya Chandu of School of Engineering, Cusat.

Prize distribution was done by Dr. K. Poulose Jacob, Vice Chancellor (i/c) in the presence of Sebastian Ouseph, Finance Officer, Dr. M. Bhasi, Director, SMS and Sree Hari Lakshmanan, Chairman, Students Union on 05 February 2014 at SMS Auditorium, Cusat. In the Inter-Collegiate Track & Field and Games



Cusat Vice Chancellor (i/c) Dr. K. Poulose Jacob inaugurates Kurukshetra - 2014, the 31st Cusat Inter-Collegiate Track & Field Meet at Thrikkakara Campus. Dr. G. Madhu, Syndicate Member, Dr. A.B. Bhasi, Controller of Exams, Sebastian Ouseph, Finance Officer, Dr. K. Sajan, Registrar (i/c), Sreehari Lakshmanan, Chairman, University Union and Dr. K.R. Ajith Mohan, Asst. Director, Physical Education are on the dais.

meet held at the main campus in Thrikkakara from 23 January to 05 February 2014, around 3500 students from 27 affiliated colleges and various departments participated.

The annual track and field meet was inaugurated on 23 January 2014 by Dr. K. Poulose Jacob, Vice Chancellor (i/c).

Dr. K. Sajan, Registrar (i/c), Sebastian Ouseph, Finance Officer, Dr. A.B. Bhasi, Controller of Examinations, Dr. G. Madhu, Syndicate Member, Dr. K.R. Ajith Mohan, Physical Education Asst. Director and Sreehari Lakshmanan, Chairman, Cochin University Union spoke on the occasion.

Mohan Nandakumar tops the Regional Mathematical Olympiad-2013

Mohan Nandakumar (Saraswathi Vidyanikethan School, Elamakkara, Cochin) has topped the Regional Mathematical Olympiad coordinated by the Department of Mathematics, Cusat and organized by the National Board for Higher Mathematics, Department of Atomic Energy, Govt. of India, held at 8 centres in Kerala on 01 December, 2013. Vishnu H. Nair, Dhananjay R. Varma (both from Saraswathi Vidyanikethan School, Elamakkara), Nithin M. Pai (BVM, Elamakk-



Mohan Nandakumar

ara) and Athul Antony Zacharias (Saraswathi Vidyanikethan School, Elamakkara) will also be awarded Prof. C.S. Venkataraman memorial prizes and KSCSTE cash awards in the Merit Evening to be held in February 2014 at Cusat.

Shashwat Shukla, Aravind R., Joshua Peter Ebenezer, S. Raghav Vaidyanathan, Arjun M., Sanjay M., Divyasree D. Pai, Rajalakshmi R., Gokul V. Nair, Keerthi Suresh, Ahmed Sanin (all from Saraswathi Vidyanikethan School, Elamakkara), Krishnamoorthy S. (Amritha Vidyalayam, Ernakulam), Karthik Ananthakrishnan (Assissi Vidyanikethan), Dripatha Ramya Sahoo, Vishnu

Gopakumar (Bhavans Varuna Vidyalaya, NPOL Campus), Ram Ganesh V., Gautham Neelakandan M. (Chinmaya Vidyalaya, Trippunithura), Jerin Baiju, Rahul C.C. (Vijayagiri Public School, Chalakkudy), Kameshkumar Meena (KV, Port Trust), Gayathri N. Sukumar (Bhavans, Trichur), Arshad Muhammed, Vishnu K.S. (Rajagiri Public school, Kalamassery), Jibin K. George (Catholocate HSS, Kottayam), Skanda Krishnan (Bhavans, Girinagar), and Noel Thomas (St. Antony's Public school, Kanjirappilly) have also been selected for International Math Olympiad to be held in South Africa in July 2014.



Cochin university students with Over all runners up trophy in the 29th South zone Inter University Youth festival held at Bangalore University, Karnataka.

Modern Technology should benefit society: Cusat VC

The use of modern technologies like GPS, GIS and Remote Sensing should be of benefit to the society, according to Cusat Vice Chancellor Dr. Ramachandran Thekkedath. He was speaking after inaugurating the Training Programme on Remote Sensing organized by the Civil Engineering Division of School of Engineering, Cusat on 04 November 2013.

He added that the University will facilitate joint research activities on GPS and Remote Sensing with Dr. Satish Centre for Remote Sensing and the Science Division of M.G. University. Dr. G. Madhu, Principal, SOE, Dr. K.S. Beena, Head, Division of Civil Engg., Dr. K.K. Saju, Convenor, Dr. John C. Mathew, Dr. Renu Pawels and Sri T. Arun Kumar spoke on the occasion. The programme was conducted under Industry Institution, Interaction Cell as part of TEQUIP Phase II.

South Zone Inter University Festival: Cusat emerge Over-all Runners-Up

Cochin University of Science and Technology bagged the overall runners up trophy in the 29th South Zone Inter University Youth Festival held at Bangalore University, Karnataka. The team bagged six first prizes, one second prize and four third prizes including event runners-up in literary events and fine arts. More than 30 Universities from Kerala, Tamil Nadu, Karnataka and Andhra Pradesh participated in the South Zone Inter University Youth Festival. The

first prize winners are:

Elocution: Amrutha Raj, School of Legal Studies, Mimicry: A. Akhiljith, Department of Instrumentation, Collage: P.S. Krishna, College of Engineering, Munnar, Non Percussion: R. Harisankar, Model Engineering College, Thikkakara accompanied by R. Venkataraman (Sarabhai Institute of Science and Technology, Trivandrum), Light Vocal Solo: Vishnu Sadanandan, Model Engineering College, Thrikkakara accompanied by Ebin Varghese, Department of Statistics, Spot Photography: Arjun C. Vinod, International School of Photonics.

The team participated under the leadership of Dr. P.K. Baby, Director, Department of Youth Welfare, Cusat.

Quality infrastructure essential: Cusat VC

The essentiality of ensuring quality in infrastructure development for excellence in engineering education is undisputed, according to Cusat Vice Chancellor Dr. Ramachandran Thekkedath. He was inaugurating the SOE Library at Thrikkakkara Campus of Cusat on 17 October 2013. The newly completed Safety and Fire Engineering Laboratory Block was also inaugurated by the Vice Chancellor at a function presided over by Dr. K. Poullose Jacob, Pro-Vice Chancellor. Dr. Joseph John, Dr. G. Madhu and Tony Raphy, Syndicate Members and Dr. A. Ramachandran, Registrar spoke on the occasion.



Smt. Jayasree A., (Deputy Registrar & P.S. to P.V.C.) conducting Nanmayude Naru mozhiikal', a proverb based digital painting exhibition to commemorate her 12th anniversary of digital art gallery exhibition, during December 2013 at Edappally St. George E.M. L.P. School.

Campus Notes

University Union Office - bearers

The results of the election of Office-bearers to the Cochin University Union 2013-2014 were declared on 06 January 2014. The elected representatives are :-



Sreehari Lakshmanan
(Chairman)

Abiram K.R.
(Vice Chairman)



Archana G.
(General Secretary)

Sinu K.
(Secretary)

Chairman - Mr. Sreehari Lakshmanan (Dept. of Marine Geology), Vice Chairman - Abiram K.R. (Dept. of Ship Technology), General Secretary - Archana G. (Dept. of Applied Economics), Secretary - Sinu K. (School of Engineering), Executive Committee Members - Deerej K. (School of Legal Studies), Thanseem K. (Dept. of Instrumentation), Akhil Antony (College of Eng.,

Kuttanad), Udith Krishnan V.V. (School of Photonics) and Mishal M.A. (K.M. School of Marine Engineering).

Environmental Film Festival

The Department of Youth Welfare, Cochin University of Science and Technology organized a festival of environmental films from 07 to 11 October 2013 ('Reel Earth: Environmental Film Festival of Cusat 2013). Sri. Joshy Mathew, Vice Chairman of Kerala Chalachithra Academy inaugurated the festival on 07 October at the Hindi Department auditorium. Dr. K Poulouse Jacob, Pro-Vice Chancellor, Cusat and Baby Mathew Somatheeram, Film Producer and MD, Jeevan T.V attended the inaugural function.

NSS Leadership Training Programme held

A state-level Leadership Training Programme on "Youth Challenges and Change Managers" organized by the National Service Scheme, Cusat was inaugurated on 11 October 2013 by Dr. K. Poulouse Jacob, Pro-Vice Chancellor in the Thrikkakara campus of the University. The inaugural function was presided over by Dr. A. Ramachandran, Registrar. Dr. K. Prakash, State Liaison Officer, NSS delivered the introductory address. Dr. K.A. Zakkariya, Syndicate member and Dr. G. Madhu, Principal, SOE & Syndicate member offered felicitations. M.B. Santhosh Kumar, Programme Co-ordinator, NSS, Cusat unit and A.M. Unni, Programme Officer, NSS, SOE also spoke on the occasion.



Dr. K. Poulouse Jacob, Vice Chancellor (i/c), Cusat, hosting the National flag as part of Republic day celebrations on 26 January 2014. Sri. T.B. Suresh Babu, Security Officer is also seen.

Tejus Editorial Advisory Board

The Vice Chancellor

Dr. A. Vijayakumar

Dr. N.G. Devaki

Dr. S. Anil Kumar (Convenor)

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Dr. K. Poulose Jacob, Vice Chancellor (i/c), Cusat presenting the Newtonian Reflecting Telescope to Govind S. Shankar, the topper of the National Space Olympiad. Dr. K. Sajan, Registrar (i/c) (at centre) and Dr. Godfrey Louis (at right) are also seen.

Govind S. Shankar tops in National Space Olympiad

Govind S. Shankar of Bhavans Varuna Vidyalaya, Thrikkakkara has topped in the National Space Olympiad organized by the IUCAA Resource Centre, Department of Physics and Eureka Next Intellectual Services Pvt. Ltd. S. Harikrishnan (Government Higher Secondary School, Valanchirangara) and K.E. Ajaykrishnan (Bhavans Vidyamandir, Iringalakkuda) shared second. Johan Cheriyan (Indian School, Muscat) got third, S. Aswin (Government Higher Secondary School, Koyilandi) got fourth & Richard Sibi (St. Kuriakose Public School) got fifth positions.

In the valedictory function held on 08 February 2014, Dr. K. Poulose Jacob, Vice Chancellor (i/c), presented awards. Dr. K. Sajan, Registrar (i/c) presided over the function. Dr. Godfrey Louis, Mithul Christopher, Co-ordinator, NSO, Jayaraman, Tharanath and T.P. Anurag Mohanan spoke on the occasion.



Dr. Poulose Jacob, Pro-Vice Chancellor, Cusat delivers the inaugural address at the State level NSS Leadership Training Programme. M.B. Santhosh Kumar, Programme Co-ordinator, N.S.S., Cusat, Dr. K. Prakash, State Liaison Officer, N.S.S., Dr. K.A. Zakkariya, Syndicate member, Dr. A. Ramachandran, Registrar and Dr. G. Madhu, Principal, School of Engineering are on the dais.



Dr. K. Poulose Jacob, Vice Chancellor (i/c), Cusat inaugurating a short Term Training Programme organized by Division of Electrical Engineering, SOE. Dr. C.A. Babu, Dr. G. Madhu and Dr. Usha Nair are nearby.

Research should focus on creation of new knowledge: Cusat VC

The focus of research should be on the creation of new knowledge instead of development of already existing scientific know-how, according to Dr. K. Poulose Jacob, Cusat Vice Chancellor (i/c).

The development of significant technology like cryogenic engineering is essential for the progress of the country. But scientists should not forget that their priority is the creation of revolutionary technological know-how, he added while inaugurating the Short Term Training Programme on New Frontiers in Drives Control and Power Electronics, organized by the Division of Electrical Engineering, School of Engineering, Cusat. Dr. G. Madhu, Principal, School of Engineering presided over the function while Dr. Usha Nair, Dr. C.A. Babu, Smt. K.M. Sheena and Dr. Asha Elizabeth spoke. The training programme concluded on 10 January 2014.



Cusat Vice Chancellor Dr. Ramachandran Thekkedath lights the ceremonial lamp at the inaugural function of SOE Library and Lab Block of Safety and Fire Engineering at SOE, Cusat. Dr. A. Ramachandran, Registrar, Dr. K. Poulose Jacob, Pro-Vice Chancellor, Dr. Joseph John, Tony Raphy and Dr. G. Madhu, (Principal SOE) Syndicate Members are looking on.