Book of Abstracts

2017 - 2018

Based on

Paper Presentations

Organised by



Research Promotion Council

St. Xavier's College for Women, Aluva Email: researchpromotioncouncil@gmail.com

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ABOUT RESEARCH PROMOTION COUNCIL

Research Promotion

Council of the college was constituted in the year 2013 to promote and coordinate research activities in the College. Objectives of the research Promotion Council are to create passion among the students for research and innovation, to have periodic interactions with experts in various fields and as a forum for students and faculty members to present their academic findings. The Council also publishes a peer referred biannual interdisciplinary journal-Discourse. It aims to spread information in the field of science and humanities to the members of the academic community. Activities of the Research Promotion Council for the vear 2017-18 were inaugurated by Dr. Ajay Sekhar, Assistant Professor. Department of English, Sree Sankaracharya University of Sanskrit, Kalady on June 09. 2017. A 16-member council was constituted with Dr. Anu Anto, Assistant Professor, Department of Zoology as the coordinator and Dr. Liss Marie Das. Assistant Professor in English as the Secretary.

ABOUT BOOK OF ABSTRACTS

One of the main objectives of the Research Promotion Council was to conduct paper presentation sessions every month organized by various departments of the College. During this academic year, five paper presentation sessions and three talks by resource persons were conducted, 18 research papers both by the faculty and students were presented. The sessions covered a wide variety of topics like literature. economics. commerce, human rights, higher education. life sciences, physical sciences, chemical sciences. mathematics etc. This Book of Abstracts is based on the paper presentations conducted during the vear 2017-18.

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PHILOSOPHICAL SPECULATIONS ON KNOWLEDGE

Ajay Sekhar

Department of English Sree Sankaracharya University of Sanskrit, Kalady

In the inaugural lecture Dr. Ajay Sekhar gave an overview of the philosophical speculation of knowledge. He chronicled the history of truth from Renaissance up to the present times. He began with Descartes and drew a trajectory of its development through the works of Foucault, Edward Said, Gayathri Spivak and Homi J. Bhabha. He mentioned how oppression and subjugation happens through hegemonic systems. He also elaborated on how hegemonic practices control human beings and the society at large. Marginalized and the marginalization process as etched in subaltern and postcolonial studies found special mention in his talk. He emphasized the need for a better platform for Dalit feminist writers. He concluded his lecture by reminding that all research endeavors should be directed towards the search for truth.

COMMUNITY RADIO, THE VOICE OF THE ISOLATED

Sonia John Markose

Department of Communicative English St. Xavier's College for Women, Aluva

Community radio is based on three main aspects - nonprofit making, community ownership and control and community participation. This makes it relevant for the isolated communities in our country. This is not performing something for a community but the community is doing something for the community itself. Their voice can be reached only a few miles, but these community radio stations enable the underprivileged communities to share their concerns and agricultural ideas with their community members. Community radio provides profound innovative opportunities for more comprehensive and sustainable development. This paper tries to figure out how this participatory medium helps in reviving the developmental prowess of media by promoting meaningful content that is relevant and socially responsible to the underprivileged community.

GREEN AUDIT-A CASE STUDY OF ST. XAVIER'S COLLEGE FOR WOMEN, ALUVA

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Lamiya K K, Naiji Josephine A J and Nisha P
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The term 'Green Audit' is the process of assessing the environment impact of an organization, process, project or product. Green auditing is known by another name Environmental auditing. It is a means of assessing environmental performance (Welford, 2002). It involves the systematic examination of the interactions which could be gaseous emission to air, land and water; legal constraints the effects on neighboring communities; landscape and ecology. The auditing is done in a systematic approach and is conducted objectively. The auditor obtains and evaluates evidence that concerns the assertions about economic actions and events. The main objective of the auditor is to communicate the results to the interested users. The Green audit practically involves energy conservation, use of renewable resources, rainwater harvesting, efforts of carbon neutrality, hazardous waste management and E-waste management. Green audit is linked to sustainable development process. Green audit and sustainable development process help to reduce the wastage and associated cost as well as increases the product quality. There is a relationship between Green audit and sustainable development of any business organization.

Strong green audit can help to achieve the sustainability. A well-defined framework can help to achieve the goal set by an organization. It is necessary to conduct a Green audit in college campus because students become aware of the necessity to save our planet. The national and local governments take in a lot of effort for maintaining the planet green. Therefore, Green audit is the most efficient and ecological way to solve environmental problems.

EXPERIENCES IN MEDICAL NANO TECHNOLOGY

Deepthy Menon

Amrita Centre for Nanosciences & Molecular Medicine Amrita Vishwa Vidyapeetham, Kochi

Under the auspices of Research Promotion Council of the College, Department of Mathematics and Statistics jointly organized Coffee with a scientist, Dr. Deepthi Menon on August 14th, 2017. In this program, we shared Dr. Deepthy Menon's thoughts in her area of expertise over a cup of coffee. She stressed the importance of cancer diagnostics and drug delivery using nanoparticles, biomaterials for implant applications and about nanostructured thin films for sensors and photovoltaic applications. After a brief presentation about her work in Medical Nanotechnology, Dr. Menon had casual conversation and question and answer session with P.G. students of Physics department. She shared with students, how she was motivated by her parents, especially role of her mother in moulding her career. She also discussed how she pursued her Ph.D and PDF at various centres and about the difficulties she faced during the tenure. She also stressed the possibility of various type of sensors they could develop for the use of common man, for which they could utilise their scientific as well as their entrepreneurial skills thus leading to startup ventures. Students could feel the power of positive thoughts and the true love for research in her words.

COMPARATIVE STUDY ON SYNTHETIC AND NATURAL TOOTH PASTE

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The present study was carried out to prepare natural tooth paste using plant leaves. The study was designed to evaluate antimicrobial activity of leaf extracts of betel, mango, guava, nutmeg and peppermint in the tooth paste and also its comparative study with synthetic paste. The natural toothpaste was found to be very efficient against microbial infections in our mouth. The addition of natural plant extracts to tooth paste can increase the anti-microbial spectrum, thus can reduce or prevent oral diseases. The plant extract added in the tooth paste are good and efficient in the antimicrobial activity against *Streptococcus sp.* Synthetic tooth pastes also found to be with high antibacterial activity, shelf life and high pH due to the usage of antibacterial agents and other wide usage of chemicals.

തീരദേശക്രൈസ്തവരുടെ കലാരൂപങ്ങൾ – ഒരു സാംസ്കാരികവിശകലനം

ലില്ലി സി.ഒ

മലയാള വിഭാഗം സെൻറ് സേവിയേഴ്സ് കോളജ് ഫോർ വിമൻ, ആലുവ

ഏതൊരു ജനസമുദായത്തിന്റെയും കലകളും അനുഷ്ഠാനങ്ങളും അവ ജീവിതത്തോടും സംസ്കാരത്തോടും രുടെ അഭേദ്യമായി ബന്ധ പ്പെട്ടാണിരിക്കുന്നത്. മററുള്ളവരിൽനിന്ന് ഒരു ജനസമൂഹത്തെ വ്യതിരിക്ത മാക്കുന്നത് പലപ്പോഴും ഭാഷ, സാഹിത്യം, സംഗീതം, കല ഇവയെല്ലാം ചേരുന്ന ഇത്തരം സാംസ്കാരിക മൂലധനമാണ് (Cultural Capital). ചില സന്ദർഭങ്ങളിൽ സാംസ്കാരികാധിനിവേശത്തെ ചെറുത്തുനില്ക്കുന്ന വിധ കലകളുമൊക്കെ പ്രതിരോധസജ്ജമാകാറുമുണ്ട്. ത്തിൽ ഭാഷയും അങ്ങനെ വംശീയ ചെറുത്തുനില്പുകൾ നിലനിന്നുപോന്ന ഒരു സമൂഹ മാണ് തീരദേശക്രൈസ്തവർ എന്നറിയപ്പെടുന്ന ലത്തീൻ ക്രൈസ്തവസ മൂഹം. 16–ാം നൂററാണ്ടിൽ പോർച്ചുഗീസുകാരുടെയും പാശ്ചാത്യ മിഷണ ക്രൈസ്തവസഭയായ സ്വാധീനത്തിലാണ് പാശ്ചാത്യ റിമാരുടെയും കത്തോലിക്കാവിഭാഗം ലത്തീൻ കേരളത്തിൽ ശക്തിപ്രാപിക്കുന്നത്. മിഷണറിമാരുടെ റോമിലെ പോപ്പിന്റെ അധികാരത്തിൻ കീഴിൽ ശിക്ഷണത്തിലും പാശ്ചാതൃസംസ്കാരത്തിന്റെ കർശനമായ സ്വാധീനത്തിലും ഒററപ്പെട്ട സമുദായമായി വളർന്നതിനാൽ നിരവധി സാംസ്കാരിക സവിശേഷതകളാണ് അവരെ ചൂഴ്ന്നു നില്ക്കുന്നത്.

ഭൗതികവും ആദ്ധ്യാത്മികവുമായ ക്രൈസ്തവനവീകരണം ലക്ഷ്യമാക്കി കേരളത്തിൽ നടന്ന മഹാസമ്മേളനമായിരുന്നു 1599-ലെ ഉദയംപേരൂർ സൂനഹദോസ്. ഹൈന്ദവരുമായി ഇടകലർന്ന് ജീവിക്കുമ്പോഴുണ്ടായിരുന്ന സാംസ്കാരികമായ കൊടുക്കൽ വാങ്ങലുകൾക്ക് ക്രൈസ്തവരുടെ മേൽ അക്കാലത്ത് നിയന്ത്രണങ്ങൾ ഉണ്ടായി. അതിൽ ഏററവും പ്രധാനം ക്രൈസ്തവരുടെ കലാപാരമ്പര്യത്തിനുണ്ടായ കർശനമായ വിലക്കു കളായിരുന്നു. അതുവരെ വരേണ്യരുടെ കലാരൂപങ്ങളായ കൂത്തും കൂടി യാട്ടവും അരങ്ങേറിയിരുന്ന ക്രൈസ്തവദേവാലയങ്ങളിൽനിന്ന് സൂനഹ ദോസ് അത്തരം കലാരൂപങ്ങളെ പുറത്താക്കി. അതോടെ ക്രൈസ്തവ രുടെ കലാവാസനയെ തൃപ്തിപ്പെടുത്താൻ പുതിയ കലാരൂപങ്ങളെ മിഷണറിമാർക്ക് കണ്ടെത്തേണ്ടി വന്നു. അണ്ണാവിപ്പാട്ടുകൾ, അമ്മാനപ്പാ ടുകൾ, പാനപ്പാട്ടുകൾ എന്നറിയപ്പെടുന്ന പാട്ടുസാഹിത്വം, ദേവാസ്തവ വിളി എന്ന അനുഷ്ഠാനകലാരൂപം, പാസ്ക്, ചവിട്ടുനാടകം എന്നീ ദൃശ്യകലാരൂപങ്ങൾ എന്നിവയാണ് ക്രിസ്തുമതത്തിന്റെ പ്രചാരകരായ ക്രൈസ്തവമിഷണറിമാരുടെ കീഴിൽ ലത്തീൻ കത്തോലിക്കർ രൂപ പ്പെടുത്തിയ കലാരൂപങ്ങൾ.

ക്രിസ്തുവിന്റെ ചരിതം, പീഡാനുഭവകഥകൾ, ക്രിസ്തുമാതൃചരിതം എന്നിവയായിരുന്നു അണ്ണാവിപ്പാലെ പ്രധാന പ്രമേയങ്ങൾ. സംഗീതാത്മക മായ തമിഴ് വിരുത്തങ്ങളിൽ, പ്രാസഭംഗിയോടും രസപൂർണ്ണതയോടുംകൂടി അണ്ണാവിപ്പാട്ടുകളുടെ ഉപജ്ഞാതാവ് അണ്ണാവിയാണെന്ന് വിശ്വസിക്കപ്പെടുന്നു. ഗ്രാമീണ പെസഹാപ്പാട്ടുകൾ അഥവാ പിച്ചപ്പാട്ടുകൾ, മാതാവണക്കപ്പാട്ടുകൾ എന്നീ പാട്ടുവിഭാഗങ്ങൾ അണ്ണാവിപ്പാട്ടിൽ ഉൾപ്പെടുന്നു. പ്രലോഭനത്തിന്റെയും പാപത്തിന്റെയും സഞ്ചരിക്കുന്ന ക്രൈസ്തവരെ വഴിയിൽ അനുനയനം, ഭീഷണി, മുന്നറിയിപ്പ് തുടങ്ങിയ മാർഗ്ഗങ്ങളിലൂടെ മാനസാന്തരപ്പെടുത്തു നുള്ള ശ്രമമാണ് ദേവാസ്തവിളി എന്ന അനുഷ്ഠാനകലയുടെ ലക്ഷ്യം. യഥാർത്ഥ ക്രൈസ്തവീക്ഷണത്തെ വളർത്താനും ശക്തിപ്പെടുത്താനും ഉതകുന്ന വിധത്തിലുള്ള നാടകകലാരൂപങ്ങളുടെ പ്രാഗ്രൂപമായി 'പാസ്ക്' അഥവാ 'പീഡാനുഭവനാടക'ത്തെ കണക്കാക്കാം. കേരളക്രിസ്ത്യാനി കൾക്കിടയിൽ നിലനിന്നിരുന്ന അനാചാരങ്ങളും അന്ധവിശ്വാസങ്ങളും അകററി സർവ്വസാഹോദര്യവീക്ഷണമുള്ള യഥാർത്ഥ ക്രിസ്ത്യാനികളാ ക്കുന്നതിനു സോദ്ദേശ്യമായി രചിക്കപ്പെട്ടവയായിരുന്നു ചവിട്ടുനാടകങ്ങൾ.

പാനപ്പാട്ടുകൾ എന്നറിയപ്പെടുന്ന പാട്ടുസാഹിത്യം, ദേവാസ്തവവിളി എന്ന അനുഷ്ഠാനകലാരൂപം, പാസ്ക്, ചവിട്ടുനാടകം എന്നീ ദൃശ്യകലാരൂ പങ്ങൾ എന്നിവയാണ് ക്രിസ്തുമതത്തിന്റെ പ്രചാരകരായ ക്രൈസ്ത വമിഷണറിമാരുടെ കീഴിൽ ലത്തീൻ കത്തോലിക്കർ രൂപപ്പെടുത്തിയ കലാരൂപങ്ങൾ.

തീരദേശക്രൈസ്തവരുടെ ഇടയിൽ ഇപ്രകാരം രൂപപ്പെട്ട പാട്ടുസാഹിത്യത്തിനും ദൃശ്യ കലാരൂപത്തിനും നിരവധി സവിശേഷതകൾ മതതീഷ്ണതയുള്ള വിദേശമിഷണറിമാരുടെയും കണ്ടെത്താനാവും. പോർച്ചുഗീസുകാരുടെയും സ്വാധീനത്തിൽ വളർന്നുവന്ന ലത്തീൻ കത്തോലിക്കരുടെ കലകളും ആവിഷ്കാരവുമെല്ലാം വ്യത്യസ്തമായതിൽ അതുകൊണ്ടുതന്നെ വെറും വിനോദത്തിനപ്പുറം അത്ഭുതപ്പെടാനില്ല. കറകളഞ്ഞ വിശ്വാസവും തീഷ്ണമായ ഭക്തിയും ഉൾച്ചേർന്ന പകരം സാംസ്കാരികസ്വത്വത്തിന്റെ പ്രകാശനമായി എക്കാലവും അവ നിലകൊള്ളുന്നു.

A COMPARATIVE STUDY ON SYNTHETIC AND NATURAL MOUTHWASHES

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Research findings reveal that even after brushing and flossing ninety percent of the germs are retained in the mouth itself. This shows the significance of using mouthwashes for a clean and germfree mouth. Almost all commercial synthetic mouthwashes contain chemicals which are found to be carcinogenic if used everyday and for prolonged periods. Moreover, the high alcohol content causes dehydration of the mouth which results in bad breath later on. The present work envisages to prepare natural mouthwashes from plant extracts having antibacterial property which are free of chemicals and are safe to mouth tissues.

HEALTH TOURISM A STUDY WITH SPECIAL REFERENCE TO KOTTAKKAL ARYA VAIDYA SALA, THRIKKAKKARA

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There is no doubt that health is wealth. Without sound health we cannot achieve anything in our life, nor enjoy whatever we have. In service sector the concept of Health Tourism, which is catching up a lightning speed across the world. The ultimate concept of Health Tourism is a tour to surrounding destination, medical treatment and savings. People from advanced countries, including the United States and Europe, see a benefit to develop third world countries through tourism, like India, Thailand, Philippines, South Africa, etc., while combining medical treatment with inexpensive vacation. This study intends to assess the strength of health tourism in Kerala and the role of Kottakkal Arya Vaidya Sala in promoting health tourism. Various tools like percentage and Likert's scale was used to analyse the data. The study has revealed that, Kottakal Arya Vaidya Sala is having a prominent role in promoting health tourism in Kerala

CHOICE OF ANTIBIOTIC COMBINATIONS IN COLISTIN RESSITANT KLEBSIELLA

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For more than two decades. Colistin has been used as the treatment of last resort for managing drug resistant infections caused by Enterobacteriaceae. Increasing use of colistin for multi drug resistant bacterial infections has led to the emergence of colistin resistance. Klebsiella are major nosocomal pathogen causing significant mortality and morbidity. Colistin resistant Klebsiella are difficult to treat, because they have high level of resistance to antibiotics. Total infections and infections related mortality of colistin resistant Klebsiella are increasing day by day. Currently there are no established treatment regimens. However, several combination regimens have been found to be successful for treating such infections. The aim of this study was to found combination regimens against this infection. In the three months of study, 13 clinical samples were collected, which are carbapenem resistant (MHT positive) some samples are MBL producers, all are efflux negative. The mechanism underlying resistance is due to mgrB gene, which is identified by whole genome sequencing. The samples were tested for antibiotic sensitivity by disc diffusion method to detect combined action of antibiotics. The samples show synergism to different combinations. Synergism observed for combination of antibiotics include Amikacin with Colistin/Tegicycline/Fosfomycin, Doxycycline with Colistin/ Tegicycline/ Fosfomycin, Colistin with Chloramphenicol, Imipenem with Fosfomycin/ Chloramphenicol/Colistin, Meropenem with Fosfomycin/Chloramphenicol.

IMPACT OF CAUDAL AUTOTOMY ON THE BEHAVIOUR OF ASIAN HOUSE GECKO HEMIDACTYLUS FRENATUS

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Tail autotomy facilitates escape from a predatory attack. Wriggling tails has always ignited attention of layman as well as academicians. We examined the effect of induced autotomy on the locomotion and prey capture of *Hemidactylus frenatus* and also recorded the movement of autotomized tail of different lengths. It was observed that the post-autotomy tail movement of *Hemidactylus frenatus* with different lengths differ, in terms of the time spent moving and there existed a strong positive relationship between the length of the shed tail the time spent moving and, in the area, covered by the autotomized tail. It was seen that the more number of successful prey attempts was made by the tailed ones when compared to tailless lizards as the later mostly restricted their area of locomotion. Tail autotomy could be considered a fundamental aspect of lizard biology that demands further investigation especially in cryptic species like *Hemidactylus frenatus*.

FINANCIAL LITERACY AMONG COLLEGE STUDENTS WITH SPECIAL REFERENCE TO KUTTIKKATTUKARA ELOOR MUNICIPALITY

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Financial literacy is of particular relevance to emerging economies. As these economies endeavour to improve the financial situation of their citizens by achieving higher economic growth rates, enhancement of financial literacy would help improve the financial well-being of their people even further through sound financial decision making. An attempt is made to examine the financial literacy among college students and to evaluate the influence of gender with the level of financial literacy. The study also examines the parental and peer influence on the level of financial literacy of college students.

THE STUDY ON CUSTOMER SATISFACTION AND SERVICE QUALITY OF KOCHI METRO RAIL LTD.

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A new concept or project attracts the public initially and they welcome it. They are always eager to have the first experience. Service quality has been viewed as a determinant of Customer Satisfaction in today's competitive market place. In this context, it will be very apt to focus on the newly started Kochi Metro, the dream project of Kerala. For building and maintaining long term relationship with the customer, organization needs to understand and meet the expectations of its customers. The study examines the customer satisfaction and service quality of Kochi Metro Rail Ltd. The study was conducted using survey method. A survey was conducted among the travellers of Kochi Metro using questionnaire. A convenience sample of 240 respondents were taken for data collection. The study concluded that the service quality delivery meets the perception of travellers.

A STUDY ON EMOTIONAL INTELLIGENCE AMONG THE OFFICERS OF PRIVATE SECTOR BANKS WITH REFERENCE TO ERNAKULAM DISTRICT

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Emotional intelligence is accepted in every organisation and is an important determinant of success of an individual in life than the earlier concept intelligence quotient (IQ). It is defined as the understanding of oneself and others by adapting them to immediate surroundings that tends to be more successful in dealing with their demands. The objective of the study is to analyze the dimensions and level of emotional intelligence among the officers of private sector banks. Data were collected by using structured questionnaire and the statements were constructed by using Emotional Intelligence Scale (EIS) developed by Upeinder Dhar, Sanjoyot Pethe and Anukool Hyde. Structural Equation Modeling and one sample Z test were used for the data analysis. The findings reveal that the dimensions namely understanding emotions, perception of emotions, management of emotions and using emotions have a significant influence on emotional intelligence and its level was found to excellent among the officers in private sector banks.

PATH TO UNIVERSAL HEALTH COVERAGE

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The paper aimed at a comprehensive explanation of the concept of public health and their theoretical and practical application in everyday life. The paper focuses on the ever-debated Universal Health Coverage (UHC). Universal health coverage has become a rallying cry in health policy. Universal health coverage calls for all people to have access to quality health services they need without facing undue financial burden. The relationship between five main attributes, i.e., quality, efficiency, equity, accountability and resilience has been explained. The nature of UHC belongs to the government. The core function is commitment with equality. The paper systematically explained the definition, contents of universal health coverage (UHC). The paper attempts to breakdown various dimensions of UHC viz; who are covered, what services are provided and how the costs are covered. The paper also shower light on the current scenario in the State pertaining to UHC and also the challenges it faces in attaining UHC. The paper also points out grey area in the literature and possible research areas.

ROLE OF POLITICAL CARTOONS IN THE PROCESS OF POLITICAL SOCIALIZATION.

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Political cartoons are an important part in any newspaper. Political cartoons adorn a small part of a newspaper, often in a corner. The position of this piece although small the impact is huge. A cartoon conveys a lot of information in very few words. The emotions behind the political cartoons are genuine and although harsh, are taken with a sense of humour. An editorial cartoon, also known as a political cartoon, is a drawing containing a commentary expressing the artist's opinion. The main aim of this presentation was to give an awareness regarding role of political socialization in our life. An ideal citizen must upkeep the political values rather than becoming apolitical. So political socialization is an indispensable part of our life and have major role to play.

RECENT TRENDS IN THIN FILM TECHNOLOGY

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Thin film technology is an important discovery, which has touched all walks of human life. Any solid material developed on a substrate by controlled condensation of individual atoms of molecules can be called a thin film. The physical dimension, geometry and nonequilibrium microstructure give thin films unique properties compared to the bulk. The feasibility of varying the properties by adjusting the thickness and deposition parameters has led to the development of versatile devices. The thin film deposition techniques can be broadly classified into physical and chemical methods depending on the mechanism by which the individual atoms/molecules are on to the substrate. Various applications of thin films were explained to elaborate on the versatility of the technology. The development of the technology to various light emitters such as electroluminescent (EL) devices, Light Emitting diode (LED), semiconductor laser was explained. The advantage of thin film solar cell compared to the conventional Si solar cell was addressed, with a brief account of the various thin film layers involved in a solarcells. The advancement of the technology into all transparent devices were also considered. In the developmental stages the thin film deposition techniques were mainly used for the deposition of different types of coatings such as diffusion coating, anti

reflection, reflective coatings and optical coatings to make interference filters. Later the technology developed into the development of various types of simple devices like electroluminescent (EL) devices, which is widely used in flat panel displays. The development of the technology led to the realization of various light emitting devices like light emitting diode and laser diodes which are primarily pn junction devices. Both these devices consume very little power and a very little amount of the substance is needed for the development into a device. This makes the technology cheap and accessible to common man. Now thin film transistors are used for making memory devices and thin film field effect devices. The technology has developed into the make of all transparent thin film devices such as transparent thin film memory devices and all transparent thin film solar cells. In this lecture a brief introduction to the thin films discussing the need for thin films, the various thin film deposition process and the various applications of thin film were outlined.