

RES NOVAE

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'There's a way to do it better—find it.'

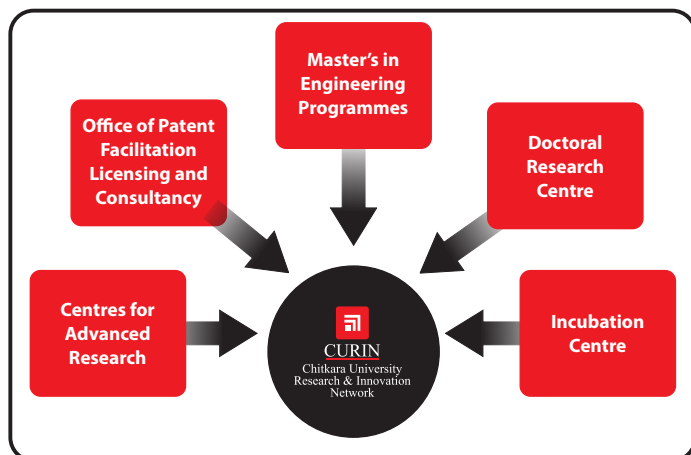
Thomas Edison

Chitkara University Research and Innovation Network (CURIN) was established in July 2014, with a clear objective to bring all research related activities under one umbrella and to provide conducive environment for healthy and ethical research practices.

CURIN aims

- ❖ To promote interdisciplinary and applied research beneficial to our University, Society, National and International Community.
- ❖ To incorporate and inculcate inclusive research habits - with innovative streak - at all levels of students, employees and faculty.

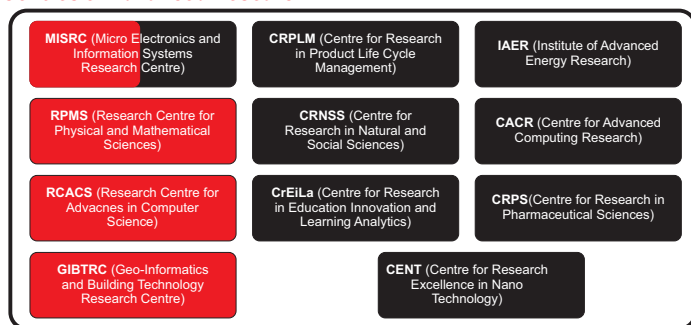
Constituents of CURIN are



Highlights of various programs under CURIN are:

- ❖ Problem to Research approach
- ❖ All Ph.D and Masters (Fellowship) programs aligned to the mission of CURIN
- ❖ All Masters programs follow Project Based Learning approach
- ❖ Office of Patent Facilitation is an integral part
- ❖ 'Affect' effect in UG programs

Centres of Advanced Research



Office of Patent Facilitation, Licensing & Tech Transfer and Consultancy (OPFLC)

The constituents of OPFLC are

- ❖ Patenting
- ❖ Licensing & Tech Transfer
- ❖ Consultancy Division

Patent Facilitation

Office of Patent Facilitation (OPF) was established in August, 2014 with an objective to inculcate and nurture the innovative spirit of students, staff and faculty. OPF facilitate the filing of patents by students, staff and faculty under 'Easy Patent Policy'.

Highlights of Patent Facilitation

- ❖ Full time patent attorneys available on campus
- ❖ Inventors free from legal hassles
- ❖ 100% Patent filing fee borne by CURIN
- ❖ 90% share of the commercial benefits transferred to the inventors and only 10% retained by the University to make it partially self sustainable
- ❖ Translational Research Lab (TRL) to support ideas – patent – prototype flow
- ❖ 22 patents filed since its inception

Licensing & Tech Transfer and Consultancy Division are new constituents of OPFLC initiated in May, 2015.

Licensing division has been started for licensing of intellectual property (Patents).

Highlights

- ❖ Licensing consultants available on call
- ❖ Creation of data base to facilitate matching of mentors
- ❖ MoUs drafted based on mutual trust and to ease processes
- ❖ One page 'Tech Transfer' policy is formulated for the convenience of all

Consultancy Division

Consultancy Division was launched in May, 2015 to enhance the research activities and intellectual productivity. The consultancy cell will take design, research and advocacy projects in industrial sectors. As per the 'Easy Consultancy' policy of the University, 90% of the consultancy revenue shall be payable to faculty and 10% to University.

In the span of almost a year, CURIN has progressed, broadened its horizon and would continue to strive new heights.

Dr. Archana Mantri
Pro-Vice Chancellor
Chitkara University Research & Innovation Network (CURIN)

PROJECTS

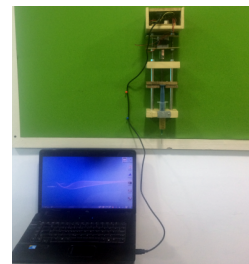
R & D Grant for UG project from The Institution of Engineers, Kolkata

The project titled 'ISTAR- Intelligent Solar Tracker with Compressorless Refrigerator' received R & D grant of Rs 20,000/- from The Institution of Engineers, Kolkata. The project was made by Nikita Aggarwal (Project Lead), Bhavika Mittal, Kiran Chauhan, Manmohit Kaur and Ravneet Kaur, B.E. (EEE) students under the guidance of Ms. Anu Singla, Associate Professor, IAER¹.

- ❖ **Mr. Vishal Mehta**, Assistant Professor, MISRC² and Dr. Nitin Saluja, Assistant Director, CURIN designed an algorithm for 'Integrated dust and micro fluidic sensing mechanism to automate windscreen wipers of car'.

- ❖ **Mr. Vishal Mehta**, Assistant Professor, MISRC² and Ms. Prakriti Kapoor, student of B.E. (Electronics & Communication Engineering) modeled project 'MEMs Modeling of Sensors'. They modeled 'Inter-Digital capacitor based MEMS Moisture Sensor using microelectronic layers'.

- ❖ **Dr. S. N. Panda** and his team developed a prototype of Portable Intensive Care Unit (Patent filed) Infusion Pump.



Mr. Antoine Jamin,

*Scholar from University of Angers-ISTIA, France enrolled for Project Training in
Centre of Advance Computing Research under the guidance of
Dr. S.N. Panda and Mr Rajesh Kaushal.*

INTERNATIONAL COLLABORATIONS & PROJECTS

The Centre for Research in Pharmaceutical Sciences, CRPS³ has following international collaborations for research work:

- ❖ Dr. Pradeep Kumar, Assistant Professor, Pharmacy and Pharmacology, Department of Faculty of Health Sciences, University of the Witwatersrand, Johannesburg 2193, South Africa, for collaborative publication work.
- ❖ Dr. Hassan Y. Aboul-Enein, Professor, Pharmaceutical and Medicinal Chemistry Department, National Research Centre, Dokki, Cairo 12311, Egypt, for collaborative publication work.
- ❖ Dr. Byung-Dae Park, Associate Professor and Director, Department of Wood Science & Technology, Kyungpook National University, Daegu, 702-701, Republic of Korea, for collaborative publication work.
- ❖ Dr. Ashish Kumar Rehni, Post Doc, Research Associate,

Department of Neurology, Miller school of Medicine, Miami University, USA, for collaborative publication and research work.

- ❖ Professor (Mrs.) Oluwatoyin A. Odeku, Head, Department of Pharmaceutics & Industrial Pharmacy, Faculty of Pharmacy, University of Ibadan, Ibadan, Nigeria, for collaboration with Govt of Nigeria for research project fellowship of Ms. Alabi, Cecilia Oluwaponmile from University of Ibadan, Nigeria. She will work as research associate at Chitkara college of Pharmacy, Chitkara University Punjab, India for the period of 1st August 2015 to 30th October 2015.

CONSULTANCY PROJECTS COMPLETED BY CRPS³

1. 'Safety, Efficacy, Stability and Antimicrobial testing of HG spray'
2. 'Antimicrobial Potential and Stability Profile of Madhuram syrup'
Organisation: Corporate Consultants, Mohali
Jan-March, 2015
Investigators:
 - Dr. Manish Jindal,
 - Thakur Gurjeet Singh
 - Dr. Sandeep Arora

3. 'Microbiological and Toxicological Profiling of Elores'
Organisation: VMRC, Venus Remedies, Baddi
June, 2014- January, 2015
Investigators:
 - Thakur Gurjeet Singh
 - Mr. Paramdeep Singh

STUDENT ACTIVITIES

❖ Visit to Punjab Energy Development Agency, Chandigarh

March 04, 2015

Institute of Advanced Energy Research, IAER¹ organised visit of B.E. students to Punjab Energy Development Authority (PEDA), a solar passive building at Chandigarh. The students learned about architecture and technologies used for energy efficient design of building. They were shown renewable energy based products such as solar dryer, solar cookers, solar lanterns, wind tower etc. Director, PEDA appreciated the Chitkara University's efforts in promoting energy conservation and renewable energy amongst budding engineers.



❖ State Level Debate Competition on, 'Energy Efficiency and Conservation'

April, 16, 2015

A State Level Debate Competition on 'Energy Efficiency and Conservation' for Engineering students in State of Punjab was jointly organized by Punjab State Council for Science and Technology (PSCST) and IAER¹, Chitkara University with sponsorship of Punjab Energy Development Agency (PEDA), Chandigarh. The students from various Engineering colleges of Punjab enthusiastically participated in the Debate Competition.

The valedictory session commenced with the presentations of the winners in various categories. Dr. Neelima Jerath, Executive Director, PSCST, gave a welcome note for all the delegates. Dr. Madhu Chitkara, Vice-Chancellor, Chitkara University gave a presentation on 'Activities of Chitkara University on Energy Conservation'. Chief Guest, Sh. K.A.P.



Sinha, Secretary, Science Technology and Environment, Government of Punjab addressed the students about various fields and emphasized the need of energy conservation.

Sh M.P. Singh, Joint Director, PEDA told about the initiatives of PEDA in bridging the gap between demand and supply. Energy efficient products and energy audit instruments were also displayed in the exhibition put by different organisations.



EXPERT TALKS DELIVERED

- ❖ **Mr. Gautam Malik**, Assistant Professor, CURIN gave talk on 'Intellectual Property Rights (IPR)' at Universal Institute of Engineering and Technology, Lalru on January 01, 2015.



- ❖ **Dr. I.S. Hudiara**, Director, Research delivered keynote address at International Conference on Advances in Computer, Electronics and Communication Technologies held at Bangkok, Thailand on January 17, 2015.



- ❖ **Mr. Gautam Malik**, Assistant Professor, CURIN delivered lecture on 'Science, Health and Life' at State Council of Educational Research & Training, Punjab (SCERT), Sector 32, Chandigarh on February 12, 2015.



- ❖ **Dr. S.N. Panda**, Director, Research was invited as keynote speaker in National Seminar on 'New Horizons in Computing Research' at Ch. Devi Lal University (State Govt. University) Sirsa, Haryana on February 26, 2015. He spoke on topic 'Creative Research : From Idea to Innovation'.



- ❖ **Ms. Anu Singla**, Associate Professor, IAER¹ conducted a session on 'Energy Audit Your House - A small step towards Conservation Energy Move' on March 14, 2015 for students of B.Sc Nursing and faculty members of Chitkara College of Nursing, Punjab.

- ❖ **Mr. Vinay Kukreja**, Assistant Professor, CURIN conducted a session on 'Intel Galileo' during 'Workshop on Arduino & Intel Galileo' held on March 21, 2015. He also provided hands on training on 'Intel Galileo' to faculty and research scholars of Chitkara University on April 12, 2015.

- ❖ **Mr. Rachit Kumar Sharma** delivered expert lecture on '3D Printing' at Chitkara University on April 27, 2015.

- ❖ **Dr. Amit Mittal**, Dean, Doctoral Research Centre delivered lecture on 'Series Innovation' to MBA students.

BOOK CHAPTERS PUBLISHED

- ❖ A textbook on 'Pharmaceutical Chemistry-VI (Medicinal Chemistry-1)', written by Dr. Anju Goyal, Thakur Publishers, India.
- ❖ A text book on 'Lateral Sclerosis- Motor Neuron Disease: An Insight', written by Thakur Gurjeet Singh, Shiwal Sharma, Sonia Dhiman and Ashish Kumar Rehni, LAMBERT Academic Publishing, OmniScriptum GmbH & Co. KG, Germany. ISBN: 978-3-659-61424-8; Oct, 24; pp: 1-129; 2014.
- ❖ Chapter titled 'Designing and implementing an innovation management system in young academic institutions using agile methodology' written by Dr. Archana Mantri and Dr. Sachin Ahuja submitted for inclusion in 'Achieving Enterprise Agility through Innovative Software Development', IGI Global, International Publisher of Progressive Academic Research.
- ❖ Chapter titled 'Synthesis, characterisation and antimicrobial activity of manganese- and iron-doped zinc oxide nanoparticles' by Dr. Mansi Chitkara, Dr. Inderjeet Singh Sandhu, Mr. Thakur Gurjeet Singh has been published on Taylor & Francis Online. Published in the CRC Concise Encyclopedia of Nanotechnology, CRC Press, Taylor & Francis Group (Chapter No. 76).
<http://www.tandfonline.com/doi/full/10.1080/17458080.2015.1025302>.
- ❖ Chapter titled 'Solid Lipid Nanoparticles: A Current Approach to New Drug Delivery System in Nanotechnology' written by Sonia Dhiman, Thakur Gurjeet Singh, Abhay Asthana & Sandeep Arora submitted for inclusion in 'Therapeutic delivery methods: concise overview of emerging areas' Publication House: Future Science Ltd., Unitec House, 2 Albert Place, London, N3 1QB, UK. (Registered in England & Wales, No: 4982360); VAT No: GB 893 6723 76.
- ❖ Chapter titled 'Formulation and Evaluation of Nanopharmaceuticals in Drug Delivery' written by Thakur Gurjeet Singh, Sonia Dhiman and Ashish Kumar Rehni, submitted for inclusion in 'Therapeutic delivery methods: concise overview of emerging areas', Publication House: Future Science Ltd., Unitec House, 2 Albert Place, London, N3 1QB, UK. (Registered in England & Wales, No: 4982360); VAT No: GB 893 6723 76.
- ❖ Chapter titled 'Nanocarriers as nanomedicine: A promising platform for drug delivery in Nanopharmaceuticals' written by Thakur Gurjeet Singh, Sonia Dhiman and Ashish K. Rehni, submitted for inclusion in 'CRC Concise Encyclopedia of Nanotechnology', Publication of books in CRC Press. Publication House: CRC Press, Taylor & Francis Publishing Group.
- ❖ Chapter titled 'Nanosuspension: An Emerging and promising Approaches in Drug Delivery System for Bioavailability Enhancement of Poorly Soluble Drugs' written by Sonia Dhiman, Thakur Gurjeet Singh, Abhay Asthana and Sandeep Arora, submitted for inclusion in 'CRC Concise Encyclopedia of Nanotechnology', Publication of books in CRC Press. Publication House: CRC Press, Taylor & Francis Publishing Group.
- ❖ Chapter titled 'Nanobiomaterials: Applications in Biomedicine and Biotechnology' by Dr. Mansi Chitkara, Dr. Inderjeet Singh Sandhu, Dr. Manish Jindal, Mr. Thakur Gurjeet Singh, Ms. Sonia Dhiman. Accepted for Publication and in Press: The CRC Concise Encyclopedia of Nanotechnology, CRC Press, Taylor & Francis Group, and to be published in June 2015 (Chapter No. 13). Available at: <http://www.tandfonline.com/doi/full/10.1080/17458080.2015.1025302>
- ❖ Dr. Preethi Pradhan and Dr Keerti Pradhan contributed a Chapter 'Emerging Healthcare Innovations' in the book 'Innovation in Healthcare Management : Cost-Effective and Sustainable Solutions' published by Productivity Press, USA, February, 2015. The link is: <http://www.crcpress.com/product/isbn/9781482252095>.

PROVISIONAL PATENTS FILED

The best way to predict the future is to invent it'

Alan Kay

- ❖ 'Centralized Fuel Consumption Monitoring System for Distributed Fuel Stations' Dt. 20/03/2015, No. 760/DEL/2015.
Inventors:
Dr. Sachin Ahuja, Dr. Surya Narayan Panda, Dr. Amitoj Singh, and Mr. Vinay Kukreja
- ❖ 'Floating Tablet Formulation of Domperidone', Dt. 10/04/2015, No. 1010/DEL/2015.
Inventors:
Dr. Sandeep Arora, Dr. Inderbir Singh, Mr. Sarvesh Malviya and Mr. Sanjeev Kumar
- ❖ 'Improved Oral Formulation of Rosuvastatin Nanocrystals with Enhanced Bioavailability and Method Thereof', Dt. 20/03/2015, No. 761/DEL/2015.
Inventors:
Dr Mansi Chitkara, Dr Inderjeet Singh Sandhu, Dr Sandeep Arora and Mr Arvind Sharma
- ❖ 'Individual Node Control Mechanism for Centralized Air Conditioning System and Method of use Thereof', Dt. 25/04/2015, No. 1157/DEL/2015
Inventors:
Dr. Nitin Saluja and Mr. Himanshu Jindal

OUR RESEARCH REVIEWERS

- ❖ Dr. Archana Mantri chaired a session in International Conference on Transformations in Engineering Education (ICTIEE-2015), organized jointly by BMS college of Engineering (BMSCE) and Indo-US Collaboration for Engineering Education (IUCEE) at Bengaluru from 6-8 January, 2015.
- ❖ Dr. S. N. Panda, Director-Research, CURIN has been awarded Certificate of Appreciation by ISI Florida, USA for his excellent work as a Member of the 'International Board of Reviewers'.
- ❖ Dr. I. S. Hudiara chaired a Technical Session at International Conference, on Advances in Computer, Electronics and Communication Technologies held at Bangkok, Thailand on January 17, 2015. He is also reviewer of the Journal of Engineering Science & Technology (JESTEC), <http://jestec.gaylors.edu.my>.
- ❖ Dr Pankaj Kumar (Associate Professor and In-charge of PhD programme) reviewed the research articles of prestigious Elsevier journals such as 'Journal of Alloys and Compounds', and 'Colloids and Surfaces A: Physicochemical and Engineering Aspects'. He also reviewed a research article of 'World Journal of Condensed Matter Physics (WJCMP)', 2015. He was also member of Technical Programme Committee of '2015 Spring International Conference on Material Sciences and Technology (MST-S)', (April 14-16, 2015 Beijing, China).
- ❖ Ms. Reecha Madaan chaired poster presentation evaluation session in SERB-DST, AICTE, PTU and Industry sponsored industry-Industry Academic Interactive Seminar on "Quality Standards in Herbal Drug Industry-Challenges and Future Course, 13-14th February, 2015, Sri Sai Institute of Pharmacy, Badhani, Pathankot.
- ❖ Ms. Reecha Madaan chaired session of Oral presentations in 1st Convention of APTI Punjab State Branch; National Conference on "Advancements, Opportunities and Future Vision of Indian Scenario of Pharmaceutical Education and Research" on April 03-04, 2015 held at Rayat Bahra Institute of Pharmacy, Hoshiarpur, Punjab.
- ❖ Mr. Bishwajeet Pandey has been reviewer and member of Technical Programme Committee of various International Conferences of repute such as
 - International Summit on 'Bio-Metrics and Smart Government', January 18-20, 2015, Sousse, Tunisia.
 - International Conference on 'Computer Vision and Image Analysis applications (ICCVIA' 2015)', January 18-20, 2015, Sousse, Tunisia.
 - IEEE International Conference on 'Computing for Sustainable Global Development (INDIACOM)', March 11-13, 2015, Bharati Vidyapeeth, Delhi.
 - International Conference on Wireless 'Networks & Embedded Systems: An Approach towards Clean & Sustainable Technology', March 20-21, 2015, Chitkara University, Punjab.
 - IEEE 5th International Conference on 'Communication Systems and Network Technologies (CSNT)', April 04-06, 2015, MIR Lab Gwalior.
 - International Conference on 'Computer, Communication, and Control Technology', April 21-23, 2015, Kuching, Sarawak, Malaysia.

CONFERENCES/WORKSHOPS/SEMINARS

- ❖ **4th International Conference on 'Wireless Network & Embedded Systems (WECON-2015)**
March 20-21, 2015

School of Electronics & Electrical Engineering organized the 4th edition of International Conference on 'Wireless Networks & Embedded Systems (WECON) 2015'. With "An Approach toward Clean & Sustainable Technology", WECON 2015 covered topics on



advancement of wireless communication, wireless networking technology, embedded systems and their applications in the field of engineering/research. Sixty papers were presented by delegates during the conference. Eight keynote talks from industry experts & researchers from eminent engineering institutions & research organizations were highlights of the conference. The delegates were also given an opportunity to get trained on latest embedded technologies through five hands-on workshops. WECON 2015 was attended by over 200 delegates from India & Abroad.



❖ **International Conference on
'Molecular Pharmacology, Drug Discovery and
NanoPharmaceuticals - MPDDNP-2015'**

March 27-28, 2015

An international Conference on 'Molecular Pharmacology, Drug Discovery and NanoPharmaceuticals-MPDDNP-2015' was conducted at Chitkara



College of Pharmacy by CRPS³. The invited expert speakers included Dr M Bhasin, Harvard Medical School, Harvard, USA, Dr Kiran Avancha, Cancer Research Institute, Hartford, Boston, Dr VRV Rao, President IPA, Sh SVK Prasad, Exec Director, CITO Healthcare, Hyderabad, Dr A K Tiwary, Professor and Former Dean, Deptt of Pharma Sciences and Drug Research, Punjabi University, Patiala, Dr Vimal Kumar, Jubilant Organosys, Dr Mahendra Bishnoi, Sr Scientist and Group Leader, Nutritional Science and Technology, National Agribiotechnology Institute, DT, India, Dr R Kishore, Sr Scientist, CSIR-Inst of Microbial Technology, DHD, Dr Suresh Atilli, Director, Clinsync CRO, Hyderabad. The Conference saw about 250 participants attending and presenting scientific study in various fields of Pharma Sciences.

The range of expert talks included development of new biomarkers based on advances in Human Genomics Research, Structure activity for Tripeptides for Antiphagocytic activity, Nutrient foods, Pharmacovigilance as new business area in India, Polysaccharides in Drug Delivery and host of other topics as expert sessions or by participants. The participants included Master's and Doctoral Pharmacy students from various Colleges in Punjab, Haryana, Himachal Pradesh, Gujarat, Uttar Pradesh, Delhi, Industry professionals like from Venus Pharmaceuticals and other professionals.

❖ **Workshop on
'Processor Coding'**

January 8-10, 2015

Mr. Bishwajeet Pandey conducted workshop on, 'Processor Coding' at Trinity College of Engineering and Research, Pune.

❖ **Workshop on
'Patent, Copyright Drafting, Filing and Design Registration'**

January 16, 2015

Workshop IPR CLINIC, A Workshop on 'Patent, Copyright Drafting, Filing and Design Registration' was organized by Chitkara College of Pharmacy. Eminent speakers for the workshop were Dr. B S Sooch, Associate Professor, Department of Biotechnology, Punjabi University, Patiala, Mrs.

Divya Kaushik, Scientist, PSCST, Chandigarh and Dr. Parikshit Bansal, Corporate Consultants, Chandigarh.

The speakers sensitized the audience on various IPR issues and procedures for registration of patents, copyrights and designs were also discussed in length. Dr. Sandeep Arora, Director, Chitkara College of Pharmacy welcomed the guest and highlighted the role of IPR issues in the pharmaceutical industry.



❖ **Workshop on
'Energy Management @Home'**

February 13, 2015

Ms. Anu Singla, Associate Professor, IAER¹ conducted workshop on 'Energy Management @Home' for School of Health Sciences. The faculty members and students of B.Sc MLT (Medical Lab Technology), B.Sc MIT (Medical Imaging Technology) and BOptom (Optometry) attended the workshop. The participants were apprised with energy scenario of the country and need of energy management at all levels. The right selection & star ratings of devices and energy conservation opportunities in operation of main household appliances (lighting systems, air conditioners, washing machines, refrigeration etc.) were discussed.

❖ **Workshop on
'Modern Analytical Techniques in Pharmaceutical Sciences (MATPS-2015)'**

March 03, 2015

Workshop on 'Modern Analytical Techniques in Pharmaceutical Sciences-MATPS-2015' was organized at Chitkara College of Pharmacy to impart information by experts on the analytical techniques being implemented in industry and their fundamental principles. While Sh Naveen Dubey, Group Leader, Analytical Development, Jubilant Organosys, Noida briefed on the Analytical Method Development and validation of HPLC and LC MS based analytical methods, Dr Ranju Bansal, Professor, UIPS, Punjab University, Chandigarh, briefed on the Spectroscopic methods of pharmaceutical Analysis, and Professor Dr Anupam Sharma, UIPS, Punjab University, Chandigarh, detailed the students on Thin Layer Chromatographic techniques and its various forms for separation and quantification of various constituents in a mixture either in a plant extract or in a formulation. The workshop was attended by B Pharm/M Pharm and Pharm D students from Chitkara University, Punjabi University, Patiala, Swift School of Pharmacy, SVIET, Banur, GPW Patiala and other schools.

¹Institute of Advanced Energy Research

³Centre for Research in Pharmaceutical Sciences



❖ Workshop on 'Energy Management and Auditing'

March 02-04, 2015

The Institute of Advanced Energy Research, IAER¹ organized a workshop on 'Energy Management and Auditing' in association with Students' Chapter of The Institution of Engineers, Chitkara University, Punjab. Ms. Anu Singla, IAER was the coordinator and key resource person for the workshop. She covered the various aspects of energy management and energy auditing. Ar. Jit Kumar Gupta, Co-Chairman, IGBC-CII, Chandigarh took a session on 'Energy Efficient Design of Buildings'. Dr. Anil Kumar Kohli, CEO, EESSI, Panchkula deliberated on 'Sustainable & Energy Efficient Utilities for Industrial Units'. The workshop was attended by students of Mechanical, Electronics & Communication and Computer Science Engineering streams.



❖ Workshop on 'VLSI Design Using Cadence Suite'

March 20-21, 2015

Mr. Vishal Mehta, Assistant Professor, MISRC², Ms. Kavita Goswami & Ms. Jasmeen Kaur organized two days workshop on 'VLSI Design using Cadence Tools' during the course of 4th Edition of International Conference on Wireless Networks and Embedded Systems WECON-2015, Chitkara University, Punjab. The workshop provided an opportunity to participants to enrich their teaching skill and research in the field of microelectronics, VLSI, and mixed signal processing. The workshop was attended by faculty members of Chitkara University, PG students from different universities like Thapar University, JUIT Solan etc. and industry persons (Connect, TT Consultants) etc..

❖ Seminar on 'Water Conservation and Rain Water Harvesting'

March 23, 2015

The Institute of Advanced Energy Research and Students', IAER¹ Chapter, The Institution of Engineers, organised a seminar on 'Water Conservation and Rain Water Harvesting'. The seminar was held to raise awareness among the young youth about the water issues, problems, facts and the solutions to remark the occasion of WORLD WATER DAY. Ms. Anu Singla, Associate Professor, IAER talked on water conservation and its need. An expert talk on 'Introduction to elements of Hydrology and Ground Water Estimation' was given by Er Bimal Jeet Bhandari, Agronomist, Executive Engineer, Water Resources and Environment Directorate, Punjab. Er Mahesh C. Jindal, Ex. Regional Director, CGWB/CGWA, Gol shared his experience on 'Rain Water Harvesting and Recharge'. The participants were also told about 'Green Technology for Industrial Water Remediation' by Dr. Jyotsana Kaushal, Dy Dean, School of Applied



Sciences, Chitkara University, Punjab. Dr Charu Khosla, Associate Professor, School of Applied Sciences, Chitkara University, Punjab discussed about water footprints.

❖ Workshop on 'Big Data Analytics'

April 25, 2015

Dr. S.N. Panda organised a one day workshop on 'Big Data Analytics for research scholars'. Mr. Neeraj Garg from Infosys, Chandigarh was key resource person. The main topics discussed were HADOOP installation on linux platform, introduction to Map-Reduce & its utility, process data with HIVE and introduction to APACHE SPARK framework.



❖ Workshop on 'How to guide for effective research'

April 30- May 02, 2015

Two days workshop on 'How to guide for effective research' was organized



by CrEILa⁴ for Ph.D. Supervisors. Dr C. P. Ravikumar, Technical Director, Technical Talent Development, Texas Instruments, India was the resource person.

*Doctoral Research Programme
Eight students got registered in PhD (ECE)
programme during
January- April, 2015*

MEETINGS UNDER SHARE- Showcase Harp Appreciate Research Exchange

Prof. J.N. Dahiya, South East Missouri State University, Cape Girrado, USA

March 14, 2015

Prof. J.N. Dahiya, Professor of Physics and Engineering Physics gave a talk on 'Effect of Cd-Te-Nanoparticles on Cancer Cells', organized by Dr. I.S. Hudiara, CENT⁵.



Dr. Jyoti S. A. Bhatt Scientist G, Department of Scientific and Industrial Research, New Delhi

March 25, 2015

Dr. Bhatt had a visit to Chitkara University. Dr. Bhatt discussed various projects and engineering courses with senior faculty members. Dr. Archana Mantri gave presentation on initiatives being taken by CURIN.



ITRA-ICAR (Agro & IT) Project

April 9, 2015

A meeting regarding ITRA-ICAR (Agro & IT) Project was held at Chitkara University, Punjab. The meeting convened by Dr. Nitin Saluja was attended by Dr. Rajesh Khanna, Professor, Thapar University, Patiala, Dr. Deepak Sharma, CSIR-IMTech, Mohali, Dr. Avnish Kumar, Professor, Govt. Medical College, Patiala, Dr. Archana Mantri and Wg. Cdr. R.S. Gill, Vice President, UA, Chitkara University, Punjab and other senior faculty members. They shared their views, thoughts, ideas and also discussed on the project.



Dr. Mausmi Acharya, CEO, Adveino Technosys, Chandigarh

April 17, 2015

Dr. Acharya visited university campus. She interacted with Dr. Archana Mantri, Dr. Nitin Saluja, Dr. Sheifali Gupta, Mr Vishal Mehta, Ms Shivani Malhotra, Chitkara University. She presented various initiatives taken by Adveino in the area of image processing.

Tek-8 Project

May 12, 2015

Dr. Yogesh Velankar, Consultant, Education and Education Research, and Ms Avneet Hira, Ph.D. Scholar at Purdue University visited Chitkara International School (CIS), Chandigarh to share their thoughts on Tek-8 (the project on revamping the 'Technology' curriculum of K-8), the ongoing project at CrEiLa. The delegates were welcomed by Dr. Niyati Chitkara, Principal, CIS, Chandigarh. Dr. Chitkara presented the work done under Tek-8. Ms. Hira presented her work on Culturally Relevant Engineering Design (CRED) and various initiatives being taken at Deptt. of Engineering Education at Purdue University.



Dr. Jose Carlos Quadrado, President, Marquette University and Dr. Joana Sampaio, Vice President, Instituto Superior de Engenharia do Porto

May 13, 2015

Dr. Quadrado and Dr. Sampaio, visited Chitkara University. Dr. Quadrado presented a detailed picture of Portugal and various Engineering Education initiatives at Instituto Superior de Engenharia do Porto. Dr. Madhu Chitkara, Vice Chancellor, Chitkara University shared her experiences on educational aspects.



PRODUCT DEVELOPMENT CONSULTANCY

Dr Sandeep Arora, Prof and Director, Chitkara College of Pharmacy provided consultancy on 'Analytical method development, quality evaluation, packaging design and promotion' for HYPERKUM 120/80 product for Natural Solutions, Mumbai.

"Every discovery opens a new field for investigation of facts, shows us the imperfection of our theories. It has justly been said, that the greater the circle of light, the greater the boundary of darkness by which it is surrounded."

Sir Humphry Davy

PUBLICATIONS

- ❖ Mantri, A., Ahuja S., 'Designing and implementing support system for innovation: a newly found challenge in young academic institutions' Journal of Engineering Education Transformations, Special Issue: January 6-8, 2015, e-ISSN 2394-1707.
- ❖ Baliyan, V., K, Pankaj, Moon, B. O, Lee, S. H. and Kang, S. W.' Surface Modified Silica Nano Particles for Vertical Alignment and Stabilization of Director Pretilt' 2nd Asian Conference on Liquid crystal (ACLC-2015), Busan, Korea, Jan 19-21, 2015.
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