ANNUAL REPORT

(2016-2017)

Academic Staff College

VIT University, Vellore

VIT UNIVERSITY
(Estd. u/s 3 of UGC Act 1956)
VELLORE ■ CHENNAI
www.vit.ac.in

1. Introduction

Academic Staff College (ASC) planned more Faculty Development Programs on Technical and Technology, Alternate teaching methodology Research and content writing, resourceful instruction of engineering, Educational theories and managerial skills for teachers domains. **151** programs were attended by **5727** participants.

2. Faculty Orientation Programme

Faculty Orientation Program (FOP) is a rigourous training program for the newly appointed faculty members. This year's FOP was scheduled from 3rd -31st May 2017 and **47** new inductees were trained to understand the culture of the institution and orient them towards institutional values. 73 sessions, 2 outbound activities, 2 industrial visits, 2 edutainment created space for the inductees to build a good team and nurture knowledge sharing and bonding.

Our Honorable Chancellor, Vice President and Vice Chancellor graced the inaugural ceremony. The vision of taking VIT to the Top 200 Global Universities List was seeded in the minds of the new faculty. Training programs were structured to envision this dream.

The Respected Vice Chancellor made transparent the expectations of the University from the newly joined faculty. The Dean Academics shared on CAL- a new initiative of VIT and the Asst. Director from Software development team shared on V-TOP. Preparations for ABET by Dr.Raju, Pro VC was the need of the hour.

Some of the titles deliberated in this academic year's FOP are:

Learning styles of Gen-Y, QS &the Ranking, Use of Social media in academics boosted the enthusiasm of the participants.

LMS-MOODLE, Podcasting by the FM Radio team, Be a people's person by Prof. Paul and Project based learning by Dr.Arulmozhivarman were few highlights.
Technology for classrooms by Dr.Lydia, Flipped classrooms, digital footprints and internationalization emerged as powerful topics. Soft skills for professors, Blooms taxonomy by Jala Jayaprakash sir followed by Stress management by the counselling team energized the audience.

Facilitation skills by Dr.John Edison form Coimbatore and Teaching to transform: Good to great by Dr. Jayakar Chellaraj, Trichy were great lectures.

Some more topics were:
Faculty and societal research development, Virtual Classrooms/ Laboratory, HR Practices, VIT SLO's and its relevance, To Sir with love, Funding agencies, NAAC Requirements by Dr.Jayashankar were to orient the new joiners on to the University needs and demands.

MOOC in academics by Aswani Kumar, Rubrics, Profile of a VIT Professor, Writing Research papers, Hackathon to makeathon as part of academics, Project proposal writing and practicals on video recording were encouraging.
Exploring MS-Excel, filing patents, IPR, Evaluating the learning in Projects, Quality Circles in Academics and Psychometrics of students were an eye opener.
Effective learning methods, adoptive techniques in teaching and smart board followed by happiness quotient were seamlessly interesting. Ergonomics by CMC doctors showed how the organization looked into the finer details of the faculty members.

The outbound program to Amirthi Nature Park and Palamaner was an overwhelming happening. The leadership development workshop coupled with games and sight -seeing was an enriching experience.

Outcome based Learning Process by Dr.Edamana Prasad from IIT Madras was very resourceful while, Dealing with the new generation and non- instructional education by the counselling team was very relevant and purposeful.

HOTS and Brain based learning by Brahadeeswaran had impacted the audience.

Much to the surprise of the inductees, an exam as an individual and as a group was held for a duration of 90 m each. All the faculty came out with flying colours.

The FOP was well received by the faculty. The valedictory function was held on the 31st of May 2017. Our Chancellor and Vice Chancellor reiterated the vision of VIT and were very happy to interact with the faculty.

3. Five – Day Faculty Development Program

3.1 Workshop on Numerical Simulations of Fluid Flows using ANSYS ICEMCFD, CFX, FLUENT CFD Tools

The five day Workshop from 12th to 16th December 2016 on Numerical Simulations of Fluid Flows using ANSYS ICEMCFD, CFX, FLUENT CFD Tools was a big go with the **15** participants. Dr. N. Gunasekaran, Asst. Genaral Manager, Fiat Chrysler India Pvt. Ltd., Chennai., & Mr. M. Jayakumar, Specialist CFD, (Mechanical Engineering Services), Robert Bosch Engg. Coimbatore were the resource persons. A true learning transfer with a hands on training mode.

The objectives of the training was enlisted as follows:

i. To make the participants confident in working with MESH generation for CFD purpose using ICEMCFD tool: both hexahedral and tetrahedral elements.
ii. To solve various flow problems like multiphase flows, conjugate heat transfer, fuel cells, turbo-machinery applications and FSI using ANSYS CFX, Fluent tools.

Learning to use simulations and help students solve problems is a big challenge, especially for teachers who do not have an aptitude for digital tools. The resource person ensured he understood the pace of the participants and helped them to use the tool with ease. The participants were triggered by the motivation and encashed on the opportunity.

The learning process and the environment was very conducive and the participants ensured that they will take it to the classroom with immediate effect. The students will ultimately benefit from the simulations and engineering will take a newer dimension, with more understanding and application.

4. Regular Faculty Development Program

4.1 Workshop on Schoology: Learning Management Software

The Workshop on Schoology: Learning Management Software is a hands on training and is categorized under Technology for Teachers. It was conducted on 17th November 2016 by Dr. Sathya Swaroop N R, School of Advanced Sciences, VIT,Vellore. **82** participants benefitted from the workshop.

Schoology is an online learning management system (LMS) that allows educators to organize curriculum, create lesson plans, and provide student assessment. The LMS platform allows for peer collaboration and engagement through public or private discussion forums and cross-application.

Digital Learning increases the faculty efficiency and productivity. In addition to engaging students, digital learning tools and technology sharpen critical thinking skills, which are the basis for the development of analytic reasoning. They also promote cooperation and teamwork which are very important skills, in every aspect of life.

The intervention by higher institutions at this juncture to facilitate digital transformation is catching up with great speed.

4.2 FDP on Successfully Using Moodle for CAL

The faculty development program titled, Successfully Using Moodle for Curriculum for Applied Learning demonstrated on how MOODLE can be effectively used in CAL courses. It was conducted on the 23rd July 2016 by Dr. John Sushil Packiaraj for 26 participants.

The following steps throw light on the topic:

Creating and maintaining Digital Record of laboratory work

Handling J- component projects and reviews

i. Dividing the class into groups automatically or as per choice
ii. Recording the progress by adding components to the grades assigned
iii. Record marks assigned by a panel to an individual
iv. Assigning marks for group work and individual work

Collate grades assigned and generate reports in spreadsheets.

Give Peer-Reviewed assignments to students

Conduct quizzes online.

The hands on session was a welcome one and the faculty were happy to get introduced to the concept. The program was repeated so that many faculty benefit from the program.

4.3 Workshop on Support Vector Machines (SVM) using LibSVM Tool

The Workshop on Support Vector Machines (SVM) using LibSVM Tool is categorized under technical tools for teachers. Dr.V. Vijayarajan & Dr. S.M.Jaisakthi, VIT, Vellore were the resource persons. **15** participants attended the program on the 24th November 2016.

The objectives of the workshop were as follows:

Libsvm is a simple, open source tool, efficient software for classification and regression used in Practical Machine Learning Problems.

The day long workshop triggered the interest levels of the participants. VIT is progressively expanding and this necessitates that the faculty equip themselves with such technical tools for the benefit of the self, organization and the community at large.

4.4 FDP on Smart Board Training Demo

The SMART Board, or interactive white board, has become a vital tool in today's technology-driven classroom as it brings a new level of interaction into the experience students have while learning. They become part of the lessons and remember activities better as their physical touch on the SMART Board has an immediate and lasting effect. Anything teachers can do that will leave an impact on students will help them remember the skills and concepts they need to learn better and for a longer time. However, teachers are busy people and may not want to take the time to learn new technology.

This faculty development program offered extensive hands on session. The trainers: one from the vendors and another from ASC were made available around the clock so that the professors can get trained as many times as they wished.

The program was phased so that maximum participants benefit from the training. The faculty thanked the management for the wonderful opportunity.

4.5 FDP on R Programming with STAT – CRAFT

The FDP on R Programming with STAT – CRAFT is categorized under technology for teachers. Mr.Sumit Bardhan, Director, Predictive Analytic Solutions, Bangalore was the resource person and **33** participants were trained.

R is becoming a de-facto standard in data analytics. However, R is primarily a programming language, requiring coding skills to work with. STATCRAFT is a webserver based platform that allows users to run data analytics in R from a browser based GUI that eliminates the need to write complex R code. Allows users to perform Data Analytics using R. In addition, STATCRAFT delivers the R output as formatted, presentation quality tables and reports.

The resource person engaged the participants on an inquiry mode of learning.

4.6 Workshop on Filing Patents in an Academic Setting

The workshop titled filing patents in an academic setting is categorized under managerial skills for teachers. Ms. Swapna Sundar, IP Dome Strategy Advisors Pvt. Ltd., Chennai was the resource person and trained **95** participants.

Filing patents helps put the university on a higher scale. So the importance of this has to be cascaded even to the research scholars' level.
The objectives were penned down as follows:

i. Turn the inventions into viable innovations
ii. Academic entrepreneurship as an institutional feature
iii. Transformation into entrepreneurial organizations
iv. Creation of an entrepreneurial culture among university scientists and researchers.

The session was gratifying for all the participants. The title is of great significance to our university as we are planning to increase the number of patents.

4.7 Workshop on Innovative Projects in Physics towards Higher Order Thinking Skills (HOTS)

The Workshop on Innovative Projects in Physics towards Higher Order Thinking Skills (HOTS) is categorized under Educational theories. The resource person was Prof. A.Subrahmanyam, Dept of Physics, IIT Madras. **28** participants experienced a great session on the 20th December 2016.

The very idea of an innovative project is that the researcher uses new methods to create something. It need not necessarily be the result. The process of translating an idea or invention into a good or service that creates value or for which there is a great demand. The outcome should benefit the process, industry, academia and the society at large.

The resource person shared snippets of 10 teaching strategies to enhance higher-order thinking skills amongst students.

1. Teaching Strategies to Help Determine What Higher-Order Thinking is.
2. Encourage Questioning.
3. Connect Concepts.
4. Teach Students to Infer.
5. Use Graphic Organizers.
6. Teach Problem-Solving Strategies.
7. Encourage Creative Thinking.
8. Use Mind Movies.

The workshop ended on a very positive note.

5.New Initiatives

5.1Faculty Enrichment Program (FEP)

FEP was envisioned exclusively for faculty belonging to School of Information Technology and Engineering and School of Computer Science and Engineering. The consultant trainers were from Bangalore.

The enrichment program was phased out in batches. The titles were based on a broad spectrum: communication, speak effectively, body language, positive psychology and brain based learning.

The faculty were grouped and extensive tasks were given. They were also guided to write a session plan for a particular topic. They had to do micro teaching and their lectures were recorded. The consultant and the faculty sat over a cup of coffee and the consultant gave an intense feedback on the lecture. This helped the **51** faculty to improve their classroom experiences. The training was very intense and focused.

5.2 Industry Institute Interface (I3)

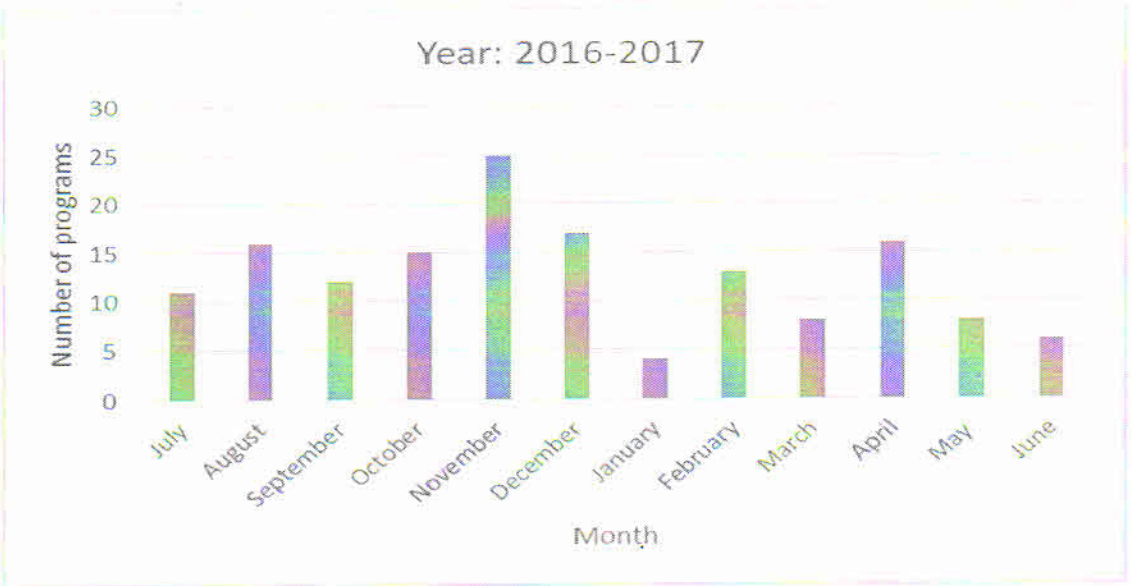
Industry experts were invited to deliver their expectation from the Academia in terms of Student Outcomes, skills, knowledge, attitude, aptitude and collaboration at large.

Year -2016-2017

Number of Programs conducted : 151

Number of Participants : 5715

Budget in INR (In lakhs) : 54.16



Dr. GUNDABATTINI EDISON

Deputy Director - ASC