

**Proceeding of One Day Seminar on Teaching Computer Based Compulsory Courses Through Spoken Tutorials in Choice Based Credit Courses (CBCS) Undergraduate Curriculum of Himachal Pradesh University, Shimla- A Joint Initiative of Spoken Tutorial Project of IIT Bombay & Himachal Pradesh University held on 30.07.2013 in University Auditorium.**

**Inaugural Session**

**Chief Guest:** Prof. A D N Bajpai, Hon'ble Vice Chancellor, H P University, Shimla

**Welcome Address:** Prof. P K Ahluwalia, Dean, Planning & Teachers Matters, HPU

**Vote of Thanks:** Prof. A J Singh, Chairperson, Dept. of Computer Science, HPU

One Day Seminar on Teaching Computer Based Compulsory Courses Through Spoken Tutorials in Choice Based Credit Courses (CBCS) Undergraduate Curriculum of Himachal Pradesh University, Shimla was inaugurated by Prof. Suresh Kumar, Dean of Studies at 10: 30 am on 30.07.2013. The main objective of this seminar was to sensitise the principals of different affiliated colleges of Himachal Pradesh University to start Computer Based Skilled courses under CBCS through Spoken Tutorial Coursewares freely available on web. Ms. Shyama Iyer and Ms. Sharda Sharma resource persons of Spoken Tutorial Team from IIT Bombay were the lead speakers to sensitise the audience about Open Source Software and Coureware freely available on web.

In addition, Prof. P K Ahluwalia- Dean Planning & Teachers Matters, Prof. Rajidner Chauhan- Dean, College Development Council, and Prof. A J Singh- Chairperson, Department of Computer Science, HPU also accompanied them. Prof. Ahluwalia welcomed the Dean of Studies, representatives of Spoken Tutorial Team and principals & teachers from various affiliated colleges. He enlightened the participants on implementation of CBCS in undergraduate programmes by involving computer based skilled courses based on Free and Open Source Softwares (FOSS). Prof. Suersh Kumar, Dean of Studies laid stress on starting of computer based skilled courses in UG level in all affiliated colleges under CBCS to provide an academic as well as professional edge to the students during his/her three years degree programme and provide an opportunity to the students to learn life skills.

Prof. A D N Bajpai, Hon'ble Vice Chancellor, Himachal Pradesh University, Shimla later joined the seminar as Chief Guest, who was welcomed formally by Prof. P K Ahluwalia, the coordinator of the seminar. Prof. P K Ahluwalia apprised Hon'ble Vice-Chancellor about the objectives and mission of ongoing seminar. Prof. Bajpai in

his speech impressed upon the participants that CBCS under RUSA is a need of the hour for survival of any educated person and to compete at the world level. He expressed his concern on communication divide between the user (student) and the service provider (teacher). He emphasised that there is a need to bridge this gap using technology by making it simpler, robust and cost effective so that students can learn at his/her pace whenever and wherever required. Prof. Bajpai exhorted the principals and faculty to bring awareness among students about these courses and implement it in mission mode.

Prof. A J Singh, Chairperson, Department of Computer Science proposed the vote of thanks and with this , inaugural session ended.

### **First Technical Session**

**Chairperson:** Prof. A J Singh, Chairperson, Dept. of Computer Science, HPU

**First Speaker:** Prof. P K Ahluwalia, Dean, Planning & Teachers Matters

**Topic:** Free and Open Source Software for Compulsory Skills Based Courses in CBCS- A Movement for Freedom Yug in Choice Based Scenario.

- Prof. P K Ahluwalia started his talk by Comparing two giants of IT world- Richard Matthew Stallman and Bill Gates. The objective of both the persons is same but approaches are different. The Richard Matthew Stallman believes in world of free usage, sharing and development of software through community participation whereas Bill Gates relies on the concept of proprietary software with an eye on business.
- Prof. Ahluwalia gave general outline of Undergraduate courses in CBCS by highlighting major, minor, skilled based, general interest/hobbies, etc.
- He put stress on incorporation of skill development courses in addition to core courses at all levels of studies so that the learner may get an edge in professional development.
- He mentioned that AAKASH tablet and its utility in classroom as self learning aid is a national initiative to move in this direction.
- Prof. Ahluwalia highlighted the need of open source software and course in present contest of teaching and learning because of freedom of sharing, development, enhancement, etc.

- He talked about objectives and projects being run using FOSS platform by various organizations like Libre Office, Open Office, LINUX , etc.
- He made a distinction between about Copy Right and Copy Left concepts under FOSS- Free and Open Source Software.
- He ended his talk by highlighting the contribution of big giants of FOSS pioneers to this world by initiating the objectives of freedom, usage, enhancement and distribution of software and courseware.
- He also emphasized the bridging of digital divide through the introduction of these life skill courses in the H.P. University curriculum.

**Second Speaker:** Ms. Sharda Sharma, IIT Bombay

**Topic:** Objective and Mission of Spoken Tutorials: Overview of Spoken Tutorial Project under NMEICT.

- Ms. Sharda Sharma started her talk with the concept of spoken tutorial and described it as video based instructional methodology where a student can learn at his/her own pace with minimum intervention of the instructor or teacher. It is an audio video tool, which facilitates learning and enhance interest among students. This is a great resource for distance learners who do not come in direct contact with a teacher.
- As a case study she picked up SciLab spoken tutorial sample and explained the usage of SciLab for teachers, researchers and students in their curriculum and profession.
- She demonstrated the usage of SciLab ver. 5.2.0 by considering small calculations and matrix operations.
- She further informed that for dynamic development of website, there is availability of PHP & MySQL in the form of spoken tutorials. This is not only cost effective but also enhances professional skill development of a user.
- During her presentation she explained the usage of these in teaching and learning process in detail by highlighting following benefits to a student:
  - Provides edge in examinations to excel for achieving better grades.
  - Provides an experience in event management
  - Gives an edge in building knowledge base
  - Provides opportunity for dual Certification- on from the parent institute as well from IIT Bombay through online testing.

- Further she very briefly described about usage of some open source softwares adopted by H.P. University in its curriculum- Python, LINUX, LAMP, LaTeX, Scilab, C/C++, Blender, GIMP, OpenFOAM, OSCAD, etc. in various research & development areas, engineering, space missions, etc. beyond classroom.
- She also discussed process as to how to register with spoken tutorial organization for free usage, enhancement and further distribution of courseware with the principals & teachers of various affiliated colleges of Himachal Pradesh University.

**Second Speaker:** Ms. Shyama Iyer, IIT Bombay

**Topic:** Implementation Issues: How to Lead in Institutional Environment and Certification and Follow-up.

- Ms. Iyer started her presentation with words that “*Spoken Tutorial is not a Project but a National Mission*”. She informed that these spoken tutorials were prepared during the years 2009 to 2011 with a missionary zeal.
- She stated that for sustainable development project has depended on open source softwares rather than proprietary softwares.
- She discussed about the usage of MySQL- open source software in various government projects.
- She expressed her concern that teachers were involved in various kinds of activities and did not have time to interact with students sitting remotely, so ICT and Open Source Courseware can play significant role to bring together.
- Ms. Iyer discussed about implementations strategy of spoken tutorials courseware in different affiliated colleges of Himachal Pradesh University by highlighting the requirement of:
  - Internet Connection, web browser- Mozilla Firefox
  - FOSS- (Open Source Software like LINUX, etc.)
  - Multimedia system with video player software, and
  - Projector for demonstration.

This session generated lot of questions from the participants and Ms. Iyer responded to their queries satisfactorily.

The first technical session ended with vote of thanks by the chairperson Prof. A J Singh with concluding remarks by highlighting the implementation and usage strategy for spoken tutorials as an integral component in the H.P. University curriculum.

## **Second Technical Session**

**Chairperson:** Sh. Mukesh Kumar, Systems Analyst, Computer Science, HPU

**Speaker:** Ms. Shyama Iyer, IIT Bombay

**Topic:** Case Studies- Basic IT Based Skills-I (Writer)

- Ms. Iyer started her talk by highlighting the usage of Basic IT based Skill in common man's life in present context to make his/her life easier by becoming conversant with the IT tools, operating system- LINUX, Ubuntu, PC software, web browser, etc. All these softwares are freely available on web and can be downloaded free of cost with freedom of usage and further distribution.
- She informed that majority of people across the world are switching towards open software like Libre Office which is an application indispensable in today's life. China, Brazil & France are using open source softwares and saving their country precious foreign currency.
- She also pointed out that in India also, there are some states like Gujrat and Maharastra, who are using open source software in their office works as well as in schools, colleges and universities. Even in IIT Bombay, there is no proprietary software installed on machines.
- She pointed out that MS Office is learnt by a common man with trial and errors whereas Libre Office can be learned with the spoken tutorials conveniently which are available on the web.
- She demonstrated the usage of "Writer" equivalent to "MSWord" by highlighting following features:
  - Word processing, Desktop Publishing, Menu Based Usage, Autocomplete/ Autocorrect, Styles, Text Format, Linking, Display Multiple Pages, Save in Window Format or other formats, etc.

**Speaker:** Ms. Shyama Iyer, IIT Bombay

**Topic:** Case Studies- Basic IT Based Skills-II (Calc)

- Ms. Shyama Iyer explained that "Calc" of Libre Office is equivalent to "MS-Excel" and is open source spreadsheet.
- Demonstrated the usage of "Calc" by highlighting the following features:
  - Numeric Computation with advance functions
  - Data Mining to discover knowledge
  - Macros, functions, etc.

- Representation of data in cross tabulation, summarization formats, etc.
- Natural language processing formats
- Scenarios manager for “ what-if analysis”
- Solver functions for optimization
- Multi-user support, etc.

**Speaker:** Ms. Shyama Iyer, IIT Bombay

**Topic:** Case Studies- Basic IT Based Skills-III (Impress)

- Explained that “Impress” of Libre Office is equivalent to “MS-Power Point”.
- Demonstrated the usage of “Impress” by highlighting the following features:
  - Slides Preparation
  - Animations
  - Graphic Management, etc.

The second technical session ended with vote of thanks by the chairperson Sh. Mukesh Kumar, Systems Analysts and Incharge Computer Centre, HPU with interesting remarks on live demonstration of Libre Office for a common man and their usage in college and University environment.

### **Valedictory Session**

**Chief Guest:** Sh. Dinker Burathoki, Director Higher Education, Govt. of H. P.

**Welcome Address:** Prof. P K Ahluwalia, Dean, Planning & Teachers Matters, HPU

**Vote of Thanks:** Dr. Kuldeep Katoch, Assistant Professor, Education, ICDEOL

Sh. Dinkar Burathoki, Director Higher Education was the chief guest for the valedictory function, who was formally welcomed by the coordinator of the programme Prof. P.K. Ahluwalia. Prof. Ahluwalia apprised him about the proceedings of the Day’s Seminar and underlined the importance of this seminar in the context of CBCS.

Sh. Dinker Burathoki, Director Higher Education, Govt. of H. P. in his valedictory address called upon all the principals of affiliated colleges to implement CBCS under RUSA in their colleges by providing quality education to their students. He emphasized on the usage of ICT as state-of-the-art tool in their teaching and administrative activities. Sh. Dinkar Burathoki underlined the fact that Govt. of Himachal Pradesh has provided in all its colleges a smart IT laboratory for its courses. He hoped that this infrastructure will get further boost under Rashtriya Uchattar

Shiksha Abhiyan and become handy to introduce computer based compulsory courses. He also asked the participants to make maximum utilization of open courseware and open software in teaching and also contribute in development of new courseware based on FOSS under NMEICT to build this Himachal Pradesh an international hub of education. He appreciated the help provided by IIT in designing computer based skill courses for the UG students of H.P. At the end Dr. Kuldeep Katoch, Assistant Professor ICDEOL, presented a vote of thanks.

(Dr. Vikas Sharma)  
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