

## VIRTUAL RESOURCE SHARING: GRID COMPUTING

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### Abstract

Technical Education in Tamilnadu plays a vital role in disseminating knowledge relating to engineering education. It has four technical universities, more than 6 deemed universities, more than 200 engineering colleges and 175 polytechnic Colleges which are situated all parts of Tamilnadu. Especially the Polytechnic Colleges rendering services at the entry level of technical education and moulded the young Indians in the technological fields. In these institutions, knowledge centres are occupying the key role in imparting knowledge in the minds of faculty members, student community and other academic community. The knowledge disseminated to the user community in polytechnic college not healthy as we are anticipating. Hence this paper aimed to develop a healthy trend in dissemination by way of Grid computing i.e. make all the resources available in one place in a electronic form with a motive to sharing of resources among the polytechnic colleges through online. The paper discussed main Objectives like Maximise the use of knowledge centre resources, Make the perfection in knowledge dissemination, Standardise the operations of knowledge centres and Meet the needs of users by resources available in the all the polytechnic colleges, Avoid duplication in huge investment. Also it discusses about how we can achieve that, Modes to implement this scheme, Functional requirement of each institution.

### Keywords :

Grid Computing, Polytechnic Colleges, Resources, Knowledge Distribution

### Introduction

Technical Education in Tamilnadu plays a vital role in disseminating knowledge relating to engineering education. It has four technical universities, deemed universities, more than 200 engineering colleges and 175 polytechnic Colleges situated all parts of Tamilnadu. Especially the Polytechnic Colleges rendering services at the entry level of technical education and moulded the young Indians in the technological fields. In these institutions knowledge centres are occupy the key role in imparting knowledge in the minds of faculty members, student community and other academic community. The knowledge disseminated to the user community in polytechnic college not healthy as we are anticipating. These may be due to

- Non availability of resources
- Poor collection Development
- Improper cooperation from authorities
- Lack of interest among the academic community
- Poor budget allocation and insufficient finance
- Scarcity of fund
- Governing bodies like AICTE, UGC not giving much importance

The above constraints are common to all the institutions. Even after that how can we overcome and succeed. Here the grid computing is comes in to picture.

Grid computing in knowledge centre means that make available all the available information of all the institutional knowledge centres in one place. By using advancement of information technology retrieve it through on line.

For successful operation of Grid computing depends on

- Objectives
- How can we achieve that?
- Modes to implement this scheme
- Functional requirement of each institution

### Objectives

#### Meet the needs of users by using available resources

To make use of all the traditional and latest information available in printed and electronic forms of resources in different institutions situated all parts of Tamilnadu and meet the users needs maximum level.

#### Maximise the use of knowledge centre resources

As third law says Every book its reader find and link the all the resources with appropriate client of the knowledge centre.

### **Make the perfection in knowledge dissemination**

As fourth law says save the time of the reader, retrieve and disseminate the information to the quickest possible minutes and make the service perfect.

### **Standardise the operations of knowledge centres**

Non standard in the operations of the library is one of the hurdle in library functioning. There is lot of variations in standard library operations like Classification and cataloguing, recording of information etc. By making standardisation, everything in the library of institutions will go smooth and also service will be effective.

### **Avoid duplication in huge investment**

Finance is lifeblood of Knowledge centre and therefore by way of Grid computing we can avoid duplication in huge investment and that can be wisely utilised for the some other important needs of the knowledge centres.

### **How can we achieve it?**

An initiation should come from top level authorities like Directorate of Technical Education.

To make the Grid computing of Knowledge centres possible only if the initiation is from the top level authorities like Directorate of Technical Education which has control over all the aspects.

### **Prepare the professionals by giving proper training**

The manpower is kingpin of any scheme that listed in the success table. With out the actual involvement of professionals the scheme will not be successful. Therefore the executing committee of Grid computing should cultivate the interest, make them aware of the scheme, train them accordingly and should execute properly.

### **Make separate grant for the implementation**

Since Grid computing is special scheme, allocation from regular budget will not serve the purpose. Hence government should make separt Block grant for excution of this project with necessary split up details.

Committee should be formed with experts in technical education

The execution will be fruitful only if forming planning and execution committee. The committee should have representation from all quarters like academic, administration, finance, Library science.

Assess the actual requirements of the academic community

With out identifying the actual urge of the academic community, the Grid computing concept will not be successful. Assess, analyse, arrive a conclusion with regard to requirements of users is main component of Grid computing in knowledge centres.

### **Modes to implement**

- Standardise the entry information of the resources
- Use standard format and forms for all the operations
- Use standard software which can useful for grid computing
- Use standard format for cataloguing
- Centralise the assigning classification numbers for resources
- Assess the system requirement
- Assess the server requirement

### **Functional requirement**

- List out the services required
- Provide infrastructure to render listed services
- Alert the users in services offered
- Train the user to use available facilities in Grid computing
- Make necessary alterations as per the feedback
- Take necessary precautions to avoid loss of information relating to resources in grid computing.
- Make omissions and corrections when needed
- Continues review of grid computing and its usage pattern
- Meet Hardware and software requirements
- Marketing of valuable resources of the institutions.
- Cover it under MODROPS scheme.

### **Conclusion**

Printed and non-printed forms of resources available in the library are making revolutionary changes if it is used effectively and properly at right time. As father of library and information science Dr.S R Renganathan says to establish a conduct between right reader to a right document at a right time in right personnel way leads to a

wonderful outcome in terms of knowledge updation and for new inventions is possible only if we link the institutions by Grid computing. Hence By making all the resources available in the institutional libraries in an electronic format and disseminate through a Grid computing is immediate requirement of Polytechnic Libraries

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