CONCLUSIONS

"Look toward the future and ponder your institution’s ability to shape that future and regenerate success again and again in the years and decades to come."

-Gary Harnel and Cheris Prahlad

Observations based on the Study

The present topic of the survey is computerisation of Amravati University’s administrative sections. The growth of University Education as highlighted in earlier chapters makes it clear that higher education has become a specialised field of education in India. Universities are potential institutions in imparting instructions in the field of higher education and there is a tremendous increase in the quantitative aspect of University Education. The number of youths joining various colleges, institutions and P.G. departments or affiliated colleges of the Universities is on a continuous rise. Naturally, the Universities are finding it difficult to meet the requirements and expectations of the aspirant youths. There is a continuous gap between the expectations of youths and the courses offered by the Universities. The major problems that our education system has witnessed in last 4/5 decades are now a clearly visible part of the rise work called “Higher Education in India”. These problems are -

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1) Growing size of University structure in India

2) Continuous increase in the enrolment of youths to Higher Education

3) Continuous increase in the number of examinees appearing for different examinations of the Universities

4) Increase in the number of courses offered by these universities

5) A regular definite increase in the quantum of amount spent on Higher Education

6) A qualitative decline in the standard of Higher Education

7) Deterioration of structure, quality and level of minimum standards of Higher Education

All these problems individually and in a compound form have posed a great threat to the academicians and the entire education system in India. It is on this background one has to think how the mushroom growth of institutions and youths opting for Higher Education can be rightly controlled. How the credibility and reliability of the system can be maintained and the enhancements can be made in the image of the Universities.

One way to look at this problem is to systimatise and mechanise the process of Higher Education. This can help in reducing the problems, lengthy procedure of administration
of these institutions of learning. It can also help in simplification of the procedures, delivering the desired results in a right manner and in the right speed. It will further be followed to improve quality standards by reducing pitfalls, loopholes and leakages in the system. Similarly, it will bring back the credibility of the system by reducing the interference of one element which often causes deterioration, over simplification and sometimes damage to the entire system.

There is growing debate on - Should Higher Education be given preference in India when there is still great dearth of facility of Primary Education? In this context also, computerisation can facilitate and can solve the problem significantly and the expenditure on various administrative activities can be significantly reduced and a major part of the available amount can be diverted to research, development and extension activities which will in turn improve the credibility and quality of education.

One more dimension to look at the computerisation of Universities is the continuous fall in the standard and growing number of leakages in the system. At present, though the Universities are the potential institutions in the field of Higher Education, their image and credibility in the society has got tarnished due to liberal and over simplified procedures, lack of discipline amongst the students, lower standard of courses, poor performance at examinations, malpractices in
the whole process of imparting education and certification to the graduates. The cumulative impact of this has resulted in the loss of society as far as the educational standards at this august temple of Higher Education is concerned. Naturally, to overcome this limitation, it becomes essential that the concept of discipline, quality, standards and performance should be given the main trust, for which the process has to be quick, smart, free and reliable. It is only through computerisation that the system of administration, examination as well as assessment and accreditation can regain the minimum standards of credibility. Hence, on this back drop, the time has come to rethink about the manual, out dated, dinosaurs' size structure of the universities.

The Acts governing the universities' administration and the procedures of imparting Higher Education are set in India way back in 1860s and 70s i.e. almost half century ago. Enough time has passed since then to necessitate their overhaul so that they can meet the needs of the time. Many of the procedures were definitely of great advantage a century ago but now their utility and relevance is lost due to a sea change in the socio-economic scenario of our country. It is improper to continue with this out mooted and outdated structure which cannot offer justice and timely results to the aspirants. The changes in the technology, socio-economic environment, educational climates and academics are so great that it will be improper to continue with this structure and hence a new,
modern dynamic structure becomes need of the hour. The legal structure has lost its relevance. The administrator's structure has become superficial and the mechanism of education has become outdated. Keeping in mind the changes that have taken place in the field of system, academic enhancement and administrative theories, it will be appropriate to have a new system of administrators which is more timely, updated and can meet expectations of present and future generations. Hence, computerising the educational system remains the only alternative which can meet the expectations of the students, academic community and the society at large.

**Amravati University : The Institution under Study**

The Amravati University was established in the year 1983. It is nearly two decades and this period, if the University has witnessed a significant change in terms of excellence, achievements and growth. This change directly hints at a need for a revised and more dynamic administrative structure. The question, why the administrative structure of the University needs to be computerised?, can be rightly understood, if one looks only at the statistical figures which are self-explanatory and demand a more up-to-date technique, a right and rational administrative work order which cannot be infused without either partial or total mechanisation.

From the following data Table 7.1 shows increase in the number of colleges in this University, it becomes easy to understand the rate of quantitative rise in colleges affiliated
to the University, taking 1983-84 as the basic year.

### Affiliation of Colleges

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Colleges</th>
<th>Increase</th>
<th>Percentage (Quantitative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84</td>
<td>77</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1984-85</td>
<td>86</td>
<td>9</td>
<td>11.60</td>
</tr>
<tr>
<td>1985-86</td>
<td>86</td>
<td>9</td>
<td>11.60</td>
</tr>
<tr>
<td>1986-87</td>
<td>90</td>
<td>13</td>
<td>16.88</td>
</tr>
<tr>
<td>1987-88</td>
<td>90</td>
<td>13</td>
<td>16.88</td>
</tr>
<tr>
<td>1988-89</td>
<td>90</td>
<td>13</td>
<td>16.88</td>
</tr>
<tr>
<td>1989-90</td>
<td>99</td>
<td>22</td>
<td>28.57</td>
</tr>
<tr>
<td>1990-91</td>
<td>112</td>
<td>35</td>
<td>45.45</td>
</tr>
<tr>
<td>1991-92</td>
<td>121</td>
<td>44</td>
<td>57.14</td>
</tr>
<tr>
<td>1992-93</td>
<td>130</td>
<td>53</td>
<td>68.83</td>
</tr>
<tr>
<td>1993-94</td>
<td>153</td>
<td>76</td>
<td>98.70</td>
</tr>
<tr>
<td>1994-95</td>
<td>166</td>
<td>89</td>
<td>115.58</td>
</tr>
<tr>
<td>1995-96</td>
<td>175</td>
<td>98</td>
<td>127.27</td>
</tr>
<tr>
<td>1996-97</td>
<td>177</td>
<td>100</td>
<td>129.87</td>
</tr>
<tr>
<td>1997-98</td>
<td>181</td>
<td>104</td>
<td>135.06</td>
</tr>
</tbody>
</table>

Table 7.1

The rise of number of colleges per academic year is illustrated in following Graph 7.1.
Similarly, if one carefully analyses the increase in the number of admitted students every year, from Table 7.2, it also provides insight into the ever-increasing quantum of University.

### Table 7.2

**Admissions of the Students**

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Students</th>
<th>Increase</th>
<th>Percentage (Quantitative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84</td>
<td>11,226</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>1984-85</td>
<td>31,850</td>
<td>20,624</td>
<td>183.72</td>
</tr>
<tr>
<td>1985-86</td>
<td>53,808</td>
<td>42,582</td>
<td>381.98</td>
</tr>
<tr>
<td>1986-87</td>
<td>75,347</td>
<td>64,121</td>
<td>571.18</td>
</tr>
<tr>
<td>1987-88</td>
<td>99,322</td>
<td>88,096</td>
<td>784.74</td>
</tr>
<tr>
<td>1988-89</td>
<td>114,268</td>
<td>1,03,042</td>
<td>917.88</td>
</tr>
<tr>
<td>1989-90</td>
<td>115,710</td>
<td>1,04,484</td>
<td>930.73</td>
</tr>
<tr>
<td>1990-91</td>
<td>143,132</td>
<td>1,31,906</td>
<td>1175.00</td>
</tr>
<tr>
<td>1991-92</td>
<td>1,62,214</td>
<td>1,50,988</td>
<td>1344.98</td>
</tr>
<tr>
<td>1992-93</td>
<td>1,67,688</td>
<td>1,56,462</td>
<td>1393.74</td>
</tr>
<tr>
<td>1993-94</td>
<td>1,80,144</td>
<td>1,68,918</td>
<td>1504.70</td>
</tr>
<tr>
<td>1994-95</td>
<td>1,86,893</td>
<td>1,75,667</td>
<td>1564.82</td>
</tr>
<tr>
<td>1995-96</td>
<td>1,94,020</td>
<td>1,82,794</td>
<td>1628.30</td>
</tr>
<tr>
<td>1996-97</td>
<td>1,92,028</td>
<td>(-1,80,802)</td>
<td>1610.56</td>
</tr>
<tr>
<td>1997-98</td>
<td>1,78,418</td>
<td>(-1,67,192)</td>
<td>1489.32</td>
</tr>
</tbody>
</table>

**Graph 7.2**
Graphical illustration of increasing admissions of students during 1983-84 to 1997-98 is shown through *Graph 7.2*.

Another indicator, *Table 7.3* and *Graph 7.3* is assess the increase in the quantitative activities of the University is increase in the number of examinations and faculties which will help us to know that the University is burdened in terms of activities like enrolment, affiliation and examinations.

### Enrolment, Affiliations & Examinations

<table>
<thead>
<tr>
<th>Year</th>
<th>No.of students admitted</th>
<th>No.of colleges</th>
<th>No.of Exams.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84</td>
<td>11,226</td>
<td>77</td>
<td>50</td>
</tr>
<tr>
<td>1984-85</td>
<td>31,850</td>
<td>86</td>
<td>111</td>
</tr>
<tr>
<td>1985-86</td>
<td>53,808</td>
<td>86</td>
<td>133</td>
</tr>
<tr>
<td>1986-87</td>
<td>75,347</td>
<td>90</td>
<td>176</td>
</tr>
<tr>
<td>1987-88</td>
<td>99,322</td>
<td>90</td>
<td>214</td>
</tr>
<tr>
<td>1988-89</td>
<td>1,14,268</td>
<td>90</td>
<td>225</td>
</tr>
<tr>
<td>1989-90</td>
<td>1,15,710</td>
<td>99</td>
<td>229</td>
</tr>
<tr>
<td>1990-91</td>
<td>1,43,132</td>
<td>112</td>
<td>240</td>
</tr>
<tr>
<td>1991-92</td>
<td>1,62,214</td>
<td>121</td>
<td>243</td>
</tr>
<tr>
<td>1992-93</td>
<td>1,67,688</td>
<td>130</td>
<td>248</td>
</tr>
<tr>
<td>1993-94</td>
<td>1,80,144</td>
<td>153</td>
<td>252</td>
</tr>
<tr>
<td>1994-95</td>
<td>1,86,893</td>
<td>166</td>
<td>265</td>
</tr>
<tr>
<td>1995-96</td>
<td>1,94,020</td>
<td>175</td>
<td>284</td>
</tr>
<tr>
<td>1996-97</td>
<td>1,92,028</td>
<td>177</td>
<td>304</td>
</tr>
<tr>
<td>1997-98</td>
<td>1,78,418</td>
<td>181</td>
<td>318</td>
</tr>
</tbody>
</table>

*Table 7.3*
Enrolment, Affiliation and Examinations

Graph 7.3

From the Tables quoted above, it is very clear that the administrative activities of the University are continuously on rise. These administrative activities are related with academics and examination work but still there is a continuous increase in the number of activities performed by the Universities. However, if the data is made related to the number of persons employed, then one can get a clear picture of growing burden of these activities on the Universities' administrative structure, for which a simple indicator Table 7.4 and Graph 7.4 are used by the researcher. The indicator is growth in examinations and students to growth in staff.
### Growth in Examinations & Students to Growth in Staff

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of students admitted</th>
<th>No. of employees</th>
<th>No. of exams.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983-84</td>
<td>11226</td>
<td>117</td>
<td>50</td>
</tr>
<tr>
<td>1984-85</td>
<td>31850</td>
<td>138</td>
<td>111</td>
</tr>
<tr>
<td>1985-86</td>
<td>53808</td>
<td>188</td>
<td>133</td>
</tr>
<tr>
<td>1986-87</td>
<td>75347</td>
<td>188</td>
<td>176</td>
</tr>
<tr>
<td>1987-88</td>
<td>99322</td>
<td>188</td>
<td>214</td>
</tr>
<tr>
<td>1988-89</td>
<td>114268</td>
<td>188</td>
<td>225</td>
</tr>
<tr>
<td>1989-90</td>
<td>115710</td>
<td>188</td>
<td>229</td>
</tr>
<tr>
<td>1990-91</td>
<td>143132</td>
<td>188</td>
<td>240</td>
</tr>
<tr>
<td>1991-92</td>
<td>162214</td>
<td>380</td>
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<td>1992-93</td>
<td>167688</td>
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<tr>
<td>1993-94</td>
<td>180144</td>
<td>419</td>
<td>252</td>
</tr>
<tr>
<td>1994-95</td>
<td>186893</td>
<td>439</td>
<td>265</td>
</tr>
<tr>
<td>1995-96</td>
<td>194020</td>
<td>439</td>
<td>284</td>
</tr>
<tr>
<td>1996-97</td>
<td>192028</td>
<td>451</td>
<td>304</td>
</tr>
<tr>
<td>1997-98</td>
<td>178418</td>
<td>451</td>
<td>318</td>
</tr>
</tbody>
</table>

**Table 7.4**

### Growth in Staff Vs. Examination and Students

![Graph 7.4](image)

The need for computerisation of administrative system
of Amravati University can be realised if one considers following simple prepositions which the researcher has put-forward on the basis of his observation.

1) The technicalities of work in the Amravati University are complex and linked at various levels. While doing a particular activity manually, it often happens that certain things go unnoticed and there is a lapse in proper performance. In many cases, the pitfall in performance is noticed only when the process is fully performed. At times, some hidden but important mistakes create a trouble at a very major stage of fulfillment of the process and thus when the reversal of the procedure is not possible, either the whole procedure has to be scrapped or the heavy penalty has to be paid to accept the work performed alongwith the mistakes. In certain cases, the benefit of such lapses have to be given to the beneficiary. Thus, it causes loss of repetition and credibility to the University.

2) There are various intra-departmental and interdepartmental activities. While performing these tasks manually, a perfect co-ordination has to be achieved between various departments and the persons working in these departments. However, because of problems of human relations, complex nature of work and some times due to confusion regarding performance, the work either is not properly performed or there is a duplication of the work. At times, some part of the activity is performed very late or
only when the work becomes essential. Thus due to the manual process of the work, the activities either are not properly performed, improperly performed or delayed to a great extent. The computerisation of such activities can help in timely performance, and in deciding a right order of performance. It also helps in deciding a appropriate person who is supposed to perform a particular activity before some other activity is performed. Thus, sequencing, scheduling and performance can be rightly arranged. Similarly, a follow up activity can be established because of which any damage can be averted by removing pitfall, lapses or mistakes well in time.

**Time savings and simplification of procedures**

Computerisation of University can help in many ways to save time of various activities performed. Certain activities, when performed manually, take lot of time and often, if they are interlinked, the course of completion is so lengthy that the real benefit can never be derived. This time lost is mainly due to human element and manual performance of jobs. However, if these activities are computerised, a calendar of activities can be well-established. Deciding the sequence, course of action, the person who is supposed to perform the activities and even the manner in which the activity is to be performed, there would be a significant saving of time as well as human labour. These savings (means this procedure) not only will help in timely performance but also a great saving
of labour which can be diverted to some other meaningful or essential activities.

**Towards paperless office**

The manual performance of various activities has resulted in creating heaps of files which required a large space for data storage. Many times, a much required data is not available when it is required. Thus, the time utility of data is lost. Some times, the available data is not reliable because a cross check cannot be made and often only a part of the data or file is assessible. In many cases, when the filing is not perfect though the data is available, it becomes untraceable and thus many things are done on presumptive basis. Certain decisions are taken without proper data base. Computerisation of data systems can bring University towards the stage of paperless office. It will help in following ways :-

1) Computerised data base will be more accurate, reliable and prompt. These data base can be used quickly and any piece of information can be traced with least efforts.

2) The time required for assessing a particular data, piece of information, will be minimal and this decision making process can be accepted. Storage problem can also be solved to a great extent. The number of store houses and the space allotted to the store houses can be reduced to such an extent that these store space can be redeployed for many other purposive activities. The cost element of data storage is also significant. Computerised data base will require low/ a very
nominal amount to spent, as the floppies are cheap and storage space required will be very small. Thus, computerised data base is clear and economical system having large saving of time, labour and money. Hence, it is advisable to go for computerised data base.

**Legal requirements and other environmental expectations**

Computerised data base will also help in fulfilling many requirements. Often, a particular piece of information is required as an evidence to be submitted for some official purpose before a judiciary or administrative authority. In the traditional system a support data and evidence to be submitted require data collection from various sections and departments. Thus, it requires lot of time and huge paper work has to be performed. However, if the data base is computerised, then a combined, collective and systematically processed data is available at one place. Thus, the data can be provided in a very small time as and when it is required. Many times, the University looses its image just because it has not supplied the right data or could not substantially prove its stand by providing a right evidence. Such situation can be easily avoided after complete computerisation of the data base.

**Strict Control of the Administrative Process**

If the information process is computerised, it will help the administration department in many ways, specifically, it will help to keep the fully correct and reliable information
from one particular source. The evasive answers can be easily controlled, lapses on the part of officials can be minimised, timely supply of information will also help in acquire, prompt and rational decision making. Due to sufficient information at one's disposal, controlling of various activities will become possible which, at present, is a big problem for want of enough evidence and information.

**Establishment of a proper reporting system**

The University is a Committee based form of Management. To take any important decision or a particular resolution, it has to go through various bodies and has to get approval of a large number of Committees and authorities. Often, this process becomes lengthy, cumbersome due to failure of one or more departments to supply timely information or failure in fulfilling certain expectations of the Committees. This is mainly due to improper reporting and data support system. A resolution passed by one Committee is often rejected by another just for non-providing substantial data or for not submitting necessary supporting documents (enclosures). Hence, the whole procedure has to be repeated again. Thus, in many cases, the Committee system of management becomes extremely lengthy and fails in taking appropriate, timely decision. The most important pre-condition for success of Committee System of Management is a strong, efficient and healthy reporting system. It is only through computerisation, Universities can develope a sound management information
system which at times will also work as a report system and thus the decision making process can be made strong as well as prompt.

**Proper implementation of Laws governing the University System**

University is a semi-governmental structure. This system is controlled and maintained by various Regulations, Acts and Statutes. The performance and functioning of the University depends to a great extent on how these Acts, Statutes and Regulations are implemented by the authorities. In many cases, implementation of certain provisions of one Act is dependent on the provision based on implementation of other provision of some other Act, Regulation or Ordinances. Hence, there has to be a symbiosis between the different authorities, bodies and officials with the help of which a care can be taken to see that every decision is taken within legal framework of the University. This needs a plethora of data and various documents which can be used to substantiate a particular decision as well as can facilitate proper implementation of certain provisions. If an entire legal framework of the University is computerised, the possibility of lapses, failure to follow up of certain provisions of various Acts can be denied or at least minimised. Hence, thoroughly computerised system of legal governance of University will help the administrative authorities in many ways.
Relevance of Computerising University Administrative System

If one analyses the points in favour of computerising University administrative system as quoted above, the relevance can be rightly understood. However, some more issues related with computerising the administrative system are discussed here to substantiate the need for computerising the administrative set up of Amravati University.

The Growing Financial Crunch

The University was established in the year 1983. However, the University is not bestowed with sufficient fund in the form of grants from the State Government and other apex authorities like U.G.C. The changes in the educational policy since 1986 have adversely affected funding pattern to the University. The limitations of financial availability at the disposal of the Government have restricted the release of more grant to the University. Similarly, the U.G.C. has not offered a yeoman’s hand to this University by releasing sufficient grant for its developmental and other activities. Thus expansion of academic and developmental activities in this University has received a jolt. Naturally, utilisation of available fund in the judicious manner becomes imperative for the University. That it must control its non-planned as well as revenue expenditure and divert the much needed funds towards developmental and expansion activities. Similarly, the University will have to define its own priorities so that the available
funds can be rightly utilised and the problem of resource crunch can be minimised to a great extent.

The change in the approach of University Grants Commission as well as State Government towards funding Universities is also a matter to be considered. But, presently, both these authorities are invoicing on self-funding and independent resource generation by the Universities. Keeping in mind the state of Amravati University, it is very difficult that the University will be able to generate a sizeable amount of fund on its own. It is only by expenditure control and rational planning that the University can minimise its dependents on the apex bodies. Hence, it becomes essential that it should reduce its expenses on administrative and other activities for which the automation becomes essential.

**Increase in workload and shortage of manpower**

The number of aspirants seeking Higher Education in the Universities is continuously increasing. Everyone who passes his /her higher secondary examination thinks of joining some or other college and burdens the University system. In the earlier paragraphs, a statistics is already provided which indicates that number of youth aspirants for higher education in the University area is growing. However, the administrative staff is not increasing in the same proportion. It means that the burden on administration is continuously increasing. The general principle of Management is followed not only by
business organisation but also for University system which says that increasing the workload beyond a limit invites mistakes and pitfalls. No person can perform better beyond a optimum level of work. If this proposition is applied to the University system in the present context, it becomes clear that the Amravati University is extremely under staffed and the employees are overburdened. Here again to solve the riddle of growing administrative work; a simple, economical solution comes in the form of computerisation of work system.

**Enhancement of Accuracy**

At present the entire University system has come under criticism mainly due to lack of reliable, accurate and credible data. Loss of credibility by these institutions of higher learning is mainly due to heavy burden of work on the employees who are performing it manually, thus leaving a room for errors. If these systems are automatised, many of the procedures can be made full proof, accurate and thoroughly reliable. For example, the Amravati University has computerised the entire system of working of examinations which has made the system thoroughly transparent, fully reliable and quick. Similar exercises can be made to automatise various other system to enhance the reliability.

**Question of credibility and transparency**

The Universities are now facing competitions with the institutions running parallel programmes of Higher Education,
Professional Education and Advance learning. Though many of these Universities are not recognised in the formal sense, the programmes and the courses offered by these institutions outweigh the programmes and courses offered by these Universities. This is mainly because of the question of credibility. The University examination system is extremely confidential, tight roped and secretive in nature. The examinees often fail to understand why and how they are examined. The employers in the employment market cannot read the system of certification for want of a transparent and reliable parameter. Thus, the whole performance of the University system is lost due to its rigidity and opaque nature. The grading, certification and award of degree has lost its relevance and it often fails to stand in competition with other agencies offering similar programmes. It becomes imperative that Universities should make their examination and certification system more reliable, credible and transparent. The element of transparency cannot be introduced in this system unless and until there are certain, unbiased, accurate and reversal applicable parameters. It is only through computerisation that such norms can rightly be laid down. For this purpose, it is essential that the examination system has to be computerised.

**Image building efforts**

We are the citizens of information age. The whole concept of administrative work, office and information process has radically changed. Computers and automation has taken
every activity under its grip. As rightly said by a noted scientist, the threat to the world is not the introduction of computers but it is the illiteracy about the computers. At this juncture, it will be improper for these Universities to keep themselves away from the process of computerisation. In order to be with time and to tune-up the functioning of the University with the work culture around us, it will be necessary that University computerises its work procedure. If the University fails to computerise its work system, it will be an isolated organisation that will lose its relevance and linkage with other parallel bodies and associations working in this computer age. It will be difficult to supply the data to other agencies or to receive and process information received from other agencies.

Our society has also now accepted a computer as an essential tool. Hence, to maintain its dignity and to improve its image, Universities will also have to go for full automation by computerising its work procedures.

**Problems in Computerisation of the University System**

The concept of computerising University Administration as stated in this survey has also witnessed many problems in terms of its implementation. This study has a major limitation as it is only to postulate, formulate the guidelines to computerise the University system. However, the study makes no attempt to design a specific software or any program which can be used directly to computerise the system in its total or in
part. The researcher after analysing the procedure and the existing administrative practices has identified certain problems faced by the University administration. These problems can be identified into following three categories:

1) Conceptual level problems,
2) Administrative level problems,
3) Technical level problems.

1) Conceptual level problems

Apparently, it is easy to accept that the administrative system of any organisation be computerised. However, when it comes to actual implementation or installation of the system, one may notice a large number of administrative as well as other problems. These problems are usually the barrier at mental level which restrict the process of computerisation in various ways. The mental level problems are difficult to solve as many users take computer as a direct threat to their work. It is often accepted as a right to exercise their power or authority. The conceptual problems occurs in following ways :-

a) Mental resistance to change

Switching over from manual systems to technical system is a major change in work culture in any organisation. When one organisation switches from manual system to computerisation, it is a complete overhaul of its work system. The employees who are earlier non-user of computers or uncustomed with the work of computerisation find it difficult to cope up with
the job that now will be handled by a via media, instrument or device called 'Computer'. This results into strong resistance to change the work procedure. The resistance comes because of the feeling that new technology may eliminate their jobs or they will be overburdened by additional workload. It is true that the people have fear with computer. When computers are introduced, it will enhance their workload, they feel many employees resist partial or total computerisation of their work for the simple reason that they have to perform more rigorously and have to give a large quantity of output. Another reason for resistance to change is lack of desire or interest to learn new system of work. Often, after working of a particular system for a long period, one becomes familiar with that work system and one can switch from it to another creates disinterest in one, as one has to learn or acquire new skill. The disinterest in learning new skills often invites a strong resistance. Many of the employees are unwilling to learn new skill at middle age of their career or after performing a particular job in a stereotype manner over a long period.

The third reason for resistance to change is a phobia about the concept of computers. Most of the employees who resist computerisation for the fear that computers are most complicated advanced machines, will not be in a position to handle such machines with efficiency and ease. Hence, they are not interested in learning basic technique that can help them to handle computers.
Further, there is fear about advancement of technology. The global functioning of advancement in computers has resulted in upgrading the computer system everywhere. The rate of obsolescence of computer knowledge is very high. This is another reason why employees are unwilling to learn about computers. They have a feeling that the skills learnt today become useless very soon. That means once computerisation is accepted, the process of continuous learning will become essential. A strong resistance to the concept of continuous learning and lifelong training is also one of the reasons of conceptual resistance.

\textit{b) Lack of understanding}

There is a resistance to computerisation for not understanding the concept of computerisation in a true perspective. The misconception has resulted because of lack of understanding about computerisation. The philosophical resistance is basically with a tenament that computers will result into unemployment. Hence, it is not advisable for our future generations that we should computerise our existing work system. Some others are unwilling to go for computerisation because of their strong belief in the ideology of socialism where they believe that the rule or governance in the office or organisation will always be dominated by the employer. Those who believe in this doctrine feel that if computerisation takes place, then the mass of worker in any organisation will
be minimised and the whole concept of socialism can never be brought to its reality due to its computerisation.

Another reason for resistance to computerisation cause in a different way, the traditional work system offers an employee significant freedom to do a job according to his sweet will and choice but once computers are introduced, the procedure will be tightened, streamlined and will be extremely systematic. Here, the work course will be sequential and will be performed in a given order and at a particular point of time. Those who resist this kind of systematised office work feel that computerisation will force them to follow a particular course of behaviour and therefore, they are unwilling to support the process of computerisation.

The last but not the least important reason for resistance to computerisation cause from a different channel. Some opponents of computerisation believe that it will require a heavy capital investment which means of blocking of huge funds. As there are heavy obsolation rates of system and machines, they believe that computerisation means wastage of funds and will never help in maintaining a minimum rate of return on the investment. Instead of that, manual system have lower rate of investment and therefore, it is advisable to go for manual systems than the computer oriented system. An advocate of this view also believe that adopting computerised system existing employees will have to be reduced, which will invite a heavy payment in the form of compensation, pension
and funds. This computerisation will become uneconomic. They also support non-computerisation on the ground that a totally computerised system will be extremely efficient and therefore most of the work will be performed in a very small period of time. Men will remain idle at time and thus the returns will not be justifiable. Some others produced bills on the grounds that machines too are fallible. They can commit the errors. Therefore, even if computers are installed, the system will not become full-proof and error free. They also criticise computerisation on the ground that in case a failure of computerised system, identification of errors will be most complicated job. On the contrary, manual errors can be easily traced out. Therefore, a complete computerised system is not advisable in the University set up.

2) Administrative resistance

The opponents of computerisation also have many points to say on the grounds of administrative resistance. A few of such areas of opposition are cited here.

First and foremost reason to resist computerisation is want of suitable infrastructure. Many critics of computerisation believe that Universities at present do not have a properly planned and developed infrastructure. It will take a long time to establish a suitable infrastructure which will meet the needs of institution like University. The jobs are complicated and functions are complexed. It will invite a highly sophisticated
system with an appropriate network. Such, a network is not in existence, hence University cannot think of computerising its work system.

Some other critics of computerisation believe that suitable software procedures and programmes to computerise the work system of University are not still available. The programmers and experts in the field of computers are yet to develop right kind of packages that will meet requirements of legal and administrative structure of the Universities. Hence, the idea of computerising University work system is still a long way to go.

On the grounds of untrained, unqualified staff, the concept of computerisation is often resisted. The champion of this view feel that most of the University staff at present belonging to different streams of learning is not technically qualified and has no formal exposure to computers. With such untrained staff, the process of computerisation cannot be introduced. Some others believe that computerisation needs specialised education and training which cannot be offered to the employees due to their resistance. Hence, even if Universities decide to promote the concept of computerisation, the strong resistance from the staff will result into total failure of the system.

There is another view objecting the process of computerisation which states that Universities are the institutions governed by the Committee form of Management. Naturally,
there is no consistency and uniformity in managing the activities of the University. Similarly, the administration is governed by various interlinked Ordinances, Statutes and Regulations. In such a complex environment, it is difficult to introduce a computerised program which will meet every kind of requirement of the administration set up.

The argument of non-availability or paucity of fund is also another factor. Often, it is said that there is a tremendous limitation of resources. Computerisation will invite further new investment and blocking of funds for a pretty long period. Keeping in mind the constraints of grant and availability of funds, the ideal of computerising the whole process, even if it is right, cannot be brought into reality.

Some critics of computerisation of University system support a view that as the managerial authorities of University come from different walks of life, there is no homogeneous combination of the authorities. There is also possibility of divergent views which may sometimes be diagonally opposite in nature. Under such circumstances, bringing a uniform opinion or consensus or the process of computerisation is almost difficult. Some of the administrators are of the view that the administrative set up and the structure of the University is very rigid and complex in nature. Most of the work systems have been developed way back in early 20s because of which there is no dynamism. Such rigid remarks
resist every kind of modernity and change. Rigidity of structure not only resists a new approach but also disallow it on the ground of law, procedural follow up and some other technical basis.

3) Technical Problems

In order to install a computerised management system in the University, there are various technical and activities related issues that have to be resolved. The technical resistance comes in various ways.

First and foremost problem is absence of complete required and potent hardware support. That it is easy to install computer laid information system, it may turn difficult to implement the same. This is mainly because of absence of hardware support for service and maintenance. Without proper hardware support, even though the system is good, it cannot run for long and hence the critics advised the same automatic or manual system where a role of hardware support is minimal. Poor infrastructure is another ground where the critics fear that the computerised information system will fail. The outdated and poor institutional structure, improper facility of air conditioning, temperature controlled and irregular supply of electricity are some of the points that resist computerisation at University level.

One major area of the resistance at the technical level is of non-availability of suitable software to meet the requirement
of various activities performed by the Universities. Unlike business organisation, University administration is a specialised activity. It requires softwares and packages that meet some of its specialised needs. However, such softwares are individualistic in nature. Hence they are not available in a package form in the market. Similarly, very few Professors are available who can design suitable programme that will meet the software requirements of the Universities. Universities cannot deploy experts, software programmers and specialists who can devote time and energy to prepare specialised software for Universities. Even if Universities decide to go for computerisation, they may face a major problem in the area of software developments.

One more area where there is a resistance to computerisation of Universities is want of suitable training and development facility. As stated earlier, the rate of obsolescence of computers and information process is very high. There has to be a continuous upgradation of programmes and skills of users which means a permanent, fully-equipped training structure has to be established. Most of the Universities at present are not in a position to install such a structure which also is a major reason of resistance.

**Process of Computerisation at University Level**

It is difficult but not impossible to go for total computerisation of the University system. However, the process
of computerising this system will have to be carried out in a phased manner to achieve the greatest benefit of computerising this administrative set up. It is suggested that following phased method of installation be adopted:

**Phase 1: Creating awareness about computerisation**

As stated earlier, there is a psychological resistance to the concept of computerisation. It is necessary that this resistance be removed in a right manner. This resistance is because of inability to accept the change, fear about machine and technical procedures, a phobia of work-alcoholic and a feeling of insecurity because of a fear that computers are fast, more accurate and thus will replace human beings in the organisations. Some also have a fear that their importance and power associated with the position will disconnect due to computerisation. All these fears can be removed if conscious attempt is made to create awareness about utility or role of computer in the organisations. Here, a care has to be taken no only to create a feeling of utility of computer but also its organisational need and role in simplification of procedures. At the awareness, such employees will have to be given an understanding that computer is a device which is not a threat to their position and any one can handle it, if properly trained. Another effort that will be needed to create awareness is computers are not a threat to the position but right equipment to exercise powers in the appropriate manner.
Phase 2: Creating suitable position points to introduce computers

Though the whole process of University Administration will be computerised, still this process has to be undertaken in a bit careful manner. In the initial stage, certain decision points have to be identified where computers will play a major role. Whereas at other levels, computers will be having a secondary role in the initial stage. This decision centres will become role model centres of utility of computers in the University set up. By demonstrating utility of computers at such utility centres, the said awareness can then be converted into a phase of awakening. At other phase, the employees and the staff will not only realise that computers definitely help them to improve their activities, performance, but also saves their physical labour.

Development of suitable net-work

University is a complex organisation where there are large number of departments linked with one another in the direct and indirect manner. This linkage is vertical and horizontal in nature. To simple the association at various departments, sections and activities a net work has to be designed which will specify how and when computers will be used for linkage of inter-departmental and intra-departmental activities. Similarly, this network will define the role task relationship at each level of authority and each hierarchy of work. This will facilitate flow of information in a right manner.
and every possible bottle-neck in the proper flow of information then can be removed.

**Creating a condusive atmosphere**

After the stage of awakening, a feeling of faith and climate of trust has to be created amongst employees. This can be done by providing proper training to the staff about how to handle computers, how to get their work done by using a particular programme etc. This training programme can be designed keeping in mind the needs of the particular department, task assigned to a particular person or officer and similarly linkage of one particular activity with another. This training will not only help employees to understand how to use computers but also it will help them in creating a favourable mindset to adjust themselves to the system of computerisation.

Here, the University authorities may have to negotiate with unions, employees organisations as well as the likely resistance of the employees who still may not digest the concept of computerisation. The feeling that human trend is superior to machine often creates this resistance. This resistance is difficult to overcome because of psychological barriers. The real utility of computers can be proved by demonstration, developing suitable, ready, course packages as well as by establishing the reliability and accuracy level of computers. Often this resistance takes a lot of time to whither. Under
such circumstances, it will be advisable to computerise the system on the level where the resistance is low and psychological barrier is limited.

**Linkage of task to Computers**

In order to have a thorough and well defined net work, it will be essential to link task with network i.e. what kind of programme will meet specific needs of a particular department has to be designed. The programmes not only will have to be need based but must have some room for modification and alteration as and when they may occur due to sudden changes in the procedure or in the decision making system.

**Result oriented system**

An essential aspect of establishing computers is to find out how computers can be more effective and result oriented. Mere installation of system or programme may not create fears in the minds of employees or the users. Every activity which is computerised must be favourable to the users responses. User-oriented and user-friendly system which gives quick result can easily be established. In this context, University decision makers will have to pay attention to three different aspects of computerisation:-

1) Higher level of reliability and trust,

2) Efficient and prompt decision making,

3) Quicker, Smarter and Accurate Data Processor system.
If these three points are rightly established, rightly valued, conflicts between the utility of machines' role and human beings can be particularly dealt with.

**Resources Allocation**

The major aspect of phased computerisation is resource allocation. A phased programme to computerise the entire system can be designed. Usually, the phased programme of computerisation should start with following priorities:-

1) Urgency
2) Volume of work
3) Simplification of complicated system
4) Reducing voluminous work
5) Mechanising repeated and stereotype jobs
6) Developing ready-to-use softwares where formats processes and procedures can be synchronised.

With these considerations, if University goes for computerisation, it can easily find out as to what are the areas where priority be given to computerise a particular activity. After taking into account the availability of resources, the measure at the most complicated system will have to be computerised. The University may decide first the computerisation of system which is directly beneficial to the ultimate aim users i.e. Students.

**Establishing norms of cost benefit analysis**

It will not be enough just to instal computers. While considering the process of computerisation, it is essential to
understand that University is a unique institution with its specific structures and modes of operation. It deals with a specialised segment of society i.e. students. Hence, the educational system and the use of computers will continue to influence each other. It is important, therefore, that all participants in the decision making process have a grasp, socio-economic, political and educational context of the University. The nature and the extent of computers' competence of University will depend on to what extent the authorities and administrative officials have accepted sharing of their jobs with computers and have seen the utility of computers in the context of education.

The University authorities while installing computers may ask certain questions in order to justify role of computers:

1) To what extent the direct economic benefits derived through computerisation which are justifiable to the cost of installation?

2) Whether the process of computerisation will give desired result in the efficient and economic manner?

3) Whether the process of computerisation will involve additional cost, either revenue or a capital nature which will burden university finances?

4) Whether the existing manpower can be effectively put to use inspite of computerisation?

5) Whether the additional staff can be deployed to other meaningful jobs?
6) Will computerisation result in reduction of jobs what are its likely implications?

7) Whether each and every employee in the organisation can understand use and effective implementation of the system so that the system does not become alien to the employees and there is no fear or atmosphere of suspicion in the organisation?

8) Whether the total result of the computerised system will benefit society at large and the students knowledge in particular?

9) Whether this process of computerisation can be justified keeping in mind this intangible benefit like reliability, accuracy, dependability and trustworthiness?

10) Is there anything like resistance from external factors to the process of computerisation of University administration? If so, what is indirect social cost of this resistance?

11) Can the process of computerisation be justified inspite of social resistance?

**Policy implications of computerisation**

If computers are put to use in the administrative set up, following policy implications are likely to occur:

**Organising and planning of University Activities**

The present set up of organising and planning of University activities is totally related with manual system of
work. Here, the major part of organising various activities and formation of plans is done manually. Hence, every department has to prepare its plan after keeping in mind its departmental and organisational requirements. Formation of master plan is done at a later stage by integrating the plans of each and every department. With computerisation, the process may change. There is a possibility of activities being undertaken simultaneously where level and activities done independently. This will facilitate introduction of perk net work and this whole process of organising various activities at the total University level as well as at each departmental level will have to be modified. The process of planning and organising will become fast as well as more efficient. It means the administrative set up will have to be considered in the following aspects:

1) Preparation of data base at the departmental or unit level to integrate it with organisational requirements.

2) Preparation of a master net work plan which will assimilate data received (input) from every department.

3) Preparation of master net work programme to cater total organisational requirements after assimilation of data inputs.

4) Developing a device to link organisation's goal and planning objectives with departmental objectives.
so that the data base becomes prompt, rational and more useful.

5) Developing a LAN system so that flow of information becomes quick and error free.

6) Preparation of suitable time activity at departmental and organisational level which will facilitate supply and receiving information in a right manner and at the right time.

7) A calender of activities will have to be formulated defining finally organisational goals and activity-wise performance or completion of stages

8) All officers and the staff will be trained so as to find out how and when they will supply the necessary information, preparing suitable information inputs to be supplied to a specific programme or adjusting their work activities with the total organisational work activities.

9) The central computer unit will have to prepare a suitable method to handle unexpected delay, problems or system loopholes.

10) The another departmental alliance will have to be encouraged for proper co-ordination for development of data base.

11) Decision making becomes more sophisticated. Hence, training will have to be provided to the Officers in rational data base management as well as scientific decision making system.
Development of suitable infrastructure

Though the computerisation as suggested in the study will be carried out in a phased manner, still the infrastructure for computerisation will have to be developed in a right perspective. A master plan for phased computerisation will have to be first chalked out after keeping in mind following factors.

1) Primary phases of computerisation and the need of the systems.

2) Priority phases of computerisation and how a system will be installed.

3) Internal development of the information flow and computerisation of a particular department.

4) Intra-departmental linkage of computerised process such as examination section with academic or college section with development and likewise.

5) Decide pace of computerisation and the time schedule in which a particular phase will be completed.

6) Decide number of system, office-base staff, power and other requirements for computerisation of a particular department.

7) Installation of computers and deciding time schedule of their utilisation.
Installation, Maintenance and Training System

Developing networks within the department as well as intra-departmental network programme by the suitable LAN programme with a master data processing unit.

Installation/Maintenance:

The University computerisation is a complex process where different kinds of specialised software will be required to meet requirement of each particular activity. Hence installation of computerised system can be carried out after considering following aspects.

1) Deciding suitable and specific system to be installed.
2) Deciding kinds of softwares that will be required to perform functions / activities in a particular department.
3) Develope suitable programme and software to the needs of a particular department / activity.
4) Linking of one software with another for smooth and appropriate flow of information from one department to another.
5) Training be given to use various kinds of softwares.
6) Development of data base and generation of information flow for further advancement of system and softwares.
7) Formulation of master database and coverage University programmes.
8) Deciding how the network at organisational level will function, modification in any of the software or programme to meet the needs of encouraged software programmes.

9) Deciding the levels at each computer programmes which will be designed or developed.

10) Deciding the whole support system and maintenance system as well as defining their roles.

11) Modification of the ready to use softwares, purchased from external agencies to meet specific requirement of the Universities.

**TRAINING :**

The training activity will play an advance role in the initial stage of computerisation. It is suggested here that training activity should be classified into following four phases.

**Phase 1] Computer literacy :** At this level, a small duration training programme can be offered to every employee of the University. In order to know more about various computer systems, their utility and role as well as functions. This will help in understanding the computer work as well as remove fear of magic machine. This will also help the employees to know how computers can do and of what kind. Because of this, the resistance level can be minimised significantly. This programme can be taken before installation of system or computerising a particular departmental activity.
Phase 2] Application level training : At this level, training will be provided to the employees to handle, monitor and utilise computer as per the needs of the department. It will train them in following areas :

1) Operating System
2) Using and running a particular programme
3) Developing a suitable data base
4) Providing need based output
5) Preparation of reports.

Phase 3] Middle level training : At this level, employees will be trained in developing suitable database, converting the data base into suitable inputs, linkage data to reporting system as well as assimilation of another departmental information. It will also train the employees in acquiring information from a LAN system using various kinds of programs. Operating system by using advance languages as well as transfer and reprocessing of data received from one department to be submitted to the another.

Phase 4] Advance level training : At this level, the employees will be given advanced knowledge about computer information technology, function of network, operating total system, operating difference languages, their roles and limitations, comparing the efficiency of computerised University system with other organisations, handling similar or different systems of computerisation. Similarly, it will help the employees in preparing our own programmes, understanding how to prepare a software of various kinds, similarly, certain basic training in maintenance and development of operation system.
Thus, the process of computerisation at University level can be undertaken efficiently and it will definitely help in improving an operation of efficient organisation, effectiveness and organisational image of these institutions of higher learning.

**Conclusion and Recommendations of the Study**

The present study is undertaken with a basic objective to find out the possible potentials of computerisation of Amravati University and the possibilities to develop a suitable computer based Management Information System (MIS). This study is a result of a research enquiry made to pursue a course of Doctor of Philosophy in the faculty of Commerce. The title of present study is “*Application of Management Information System in developing a Total System Approach for institutions of Higher Learning - A Case study of Amravati University*”. In the previous chapters, the researcher has made an attempt to find out potentials, possibilities and problems related with development of suitable Management Information System for Amravati University in particular and the University set up in general. Salient observations of this study are recorded in the previous chapters. The main conclusions based on the analysis of the data and observations drawn thereon are presented hereunder -

**Potentials of developing a suitable MIS**

After analysing various aspects related with computerisation and development of Management Information System in the University set up, following conclusions are
drawn to infer whether computerisation of University Administration System is feasible or not. It is noticed that it will be appropriate at this juncture to develop a suitable Management Information System having strong linkage with Computer data base. For this purpose following aspects are considered.

1) There is a significant growth in the size of activities undertaken by the University.

2) The number of students enrolled and number of examinations conducted by the University is also on rise.

3) With every increase in the number of students and examinees, the need for systematic data base is further growing.

4) Once the University is a established need, the purview for data base increases for pursuance of record, follow up and in certain cases, for decision making.

Collections and submission of data on past record often becomes difficult when such data is maintained manually. The computerised system of data base can help in many ways to reduce time loss and improve the level of accuracy.

University has to perform certain activities which are time bound and total user-oriented. In such cases, it becomes necessary that the activities have to be properly streamlined and systematised so that the likely time delay can be avoided
and every activity can be conducted well within the scheduled time programme. Here again, it becomes necessary to install the information system which is accurate, speedy, reliable and user-friendly which justify need for computerisation.

There are various Committees, Authorities and august Bodies governing the administration and management of University system. These bodies function in a concurrence manner. They need to supply relative information to different bodies as and when it is required. Without which the process of decision making often gets hampered. Here again, need for a Management Information System becomes inevitable and hence, a computerised Information System can cater in many ways to improve functioning of these bodies as well as it enhances the level of co-ordination.

The University has a Committee based decision making system. In this system, various bodies take decisions at different levels which becomes a final data input for policy formulation. Unless and until the genuineness of these different bodies is accepted, policy decisions cannot be taken in right manner and at the right time. For this purpose a faster moving accurate database with a perfect streamlined flow of information is essential which again can be established by way of developing a computer based Information System.

The internal management of the University also is inter-
linked to various sections and departments. Harmony and co-ordination between these sections can also be maintained if a suitable co-ordination, transparent and reliable Information System is established. This again needs a mechanised device of information flow which means a need for computerised M.I.S. becomes essential.

Thus, if one looks into these various aspects mentioned above, the need for computerised Management Information System to improve administrative functioning of the University becomes apparent and genuine.

**The computerisation of M.I.S. of University**

The question becomes obvious as to what extent the University Administration set up should be computerised. Further, it also needs to be answered as to what are the areas where computer based M.I.S. can be developed. These questions can be answered in following manner -

*Extent of Computerisation*: At present it will be inappropriate to imagine the concept of Electronic University coming to a reality in the context of Amravati University. However, a partial but well defined computerised Management Information System is the need of Amravati University and hence the partial computerisation of University set up can definitely be suggested. This partial computerisation can be undertaken in the following areas -

*Computerisation of examination related activities*: Any organisation that wants to survive and maintain its image must be essentially user-friendly. A user-friendly organisation
is one that offers a right kind of product or service to its users keeping in mind the expectations of the users. It provides the product / service in right time and in efficient way. The end product of the University system is student community. To become user-friendly, University must offer its services to the students in the most efficient manner. The most sensitive issue for the student is smooth and appropriate conduct of examination and timely declaration of the result with due accuracy. For this purpose, computerisation of examination system is one such remedy which can minimise fear in the minds of the user and improve credibility and also help the University in offering the result well and within the time.

The computerisation of the examination system can also improve faith, the level of confidence of the society and other concerned to a great extent. This will also facilitate in improving the level of credibility, transparency and efficiency of the entire system.

Computerisation of the Financial System:

University receives finances from various bodies such as University Grants Commission, State Government, Central Government and some other august agencies. These funds are received for various purpose and there are conditions according to which the deployment of funds has to be done. The efficient utilisation of the grant helps University in its appropriate development. Proper formulation of extension and research policies also improve the educational standards.
Efficient utilisation of finances is a matter of both, proper recording and timely utilisation. A computerised financial system will help the University in following ways -

1) To utilise the funds allotted to the University,
2) Proper maintenance of records,
3) To develop a suitable data base of finances
4) Creating a suitable M.I.S. for decision making.
5) Proper control of disbursement, utilisation and aversion of any likely misappropriation.

*Computerisation of General Administration System:*

The General Administration Section will be greatly benefit if the following aspects of its activities are computerised :-

1) Developing suitable inventory of employees
2) Preparing an appropriate data base for decision making of authorities like Management Council, Senate etc.
3) Preparing a systematised Information System for decision making related with transfer, promotion and other service related conditions.
4) Developing suitable data base for establishment and other matters.

The above major areas can be computerised along with computerisation of College Section. The computerisation of College Section can facilitate the University as well as the students and concerned affiliated colleges. It will help in
getting right kind of the Information, from the Colleges well within the time and scheduling of various activities such as elections, examinations etc. can be properly managed. The College can receive appropriate information from the University useful for utilisation of grants, administration and conduct of examinations. The students also will be benefitted by knowing the time schedule of examination, their results and related activities. Thus the computerisation of the University will be done in parts and to a limited extent. It will help the University in improving its decision making, communication and controlled activities.

**Social context of computerisation**

India is a developing country with rich human resources. There are critics who always oppose any form and type of mechanisation on the grounds that the human power remains under-utilised due to introduction of machines that reduce chances of employment. Similarly, another simple objection to introduction of computer is, this context does not need a mechanised organisation and its system are traditional and have a different value set up. Some experts also believe that Indian social psyche is not yet geared up to adjust itself with the process of computerisation. Even the employees working in the organisational sectors are still sceptical about the utilisation of computers at front level. This may reduce the chances of promotions and opportunities of advancement.
Under such circumstances, a question becomes obvious as, to do computers socially justify their places in the organisation like University? Here, it will be necessary to consider the shape and size of activities undertaken by the University. Since independence, the burden on University Education is continuously growing. Further the Universities are not in a position to meet the challenge of aspirations of user interested in seeking Higher Education. Thirdly, computerisation involves a change in role, Technology and human social relations while installing computer based MIS. It is presumed that it will facilitate the work culture and improve efficiency. At the same time, it will not damage the human relations. The institutions of Higher learning like universities have to be efficient and effective in teaching, research and administration. Therefore, partial mechanisation introducing a computer based Information System should be acknowledged as an essential goods and not as a necessary evil.

Careful planning and faster computerisation will definitely be accepted by all concerned. A systematic training, change in mind and developing favourable attitude are the basic requirements that can encourage appropriate introduction of computers. Keeping in mind the cultural, social and economical set up of University, it is suggested here that computerisation of the University should be done partially and partly, so that every concerned user either on the side of the administration or the students is rightly benefitted.
The decision makers in the University should also accept computerisation not as a magic man. Mere computerised system will not improve efficiency nor it can become effective delay or control. For this purpose, proper installation and implementation of the computer based programme is essential. Similarly, the employees in the University should not accept computers as a device that works on its own. They have to feed the data properly and should accept computers as a friendly device to improve accuracy and reliability. The feeling of alination definitely damages the process of computerisation. Gradually but regular increase in the process of computerisation can also help in changing the attitude of all concerned as well as making this technology socially and administratively acceptable.

While computerising the Management Information System, certain key issues affecting the very nature of functioning of the University have to be taken into account. These are -

1) What is the social role of Higher Education,

2) What are the priorities and objectives of Higher Education offered by Universities,

3) Who sets the goals and priorities for Higher Education,

4) What is the share of causes of social resistance to computerisation,

5) Should Universities accept a new, socially acceptable role by changing its existing position? If so, then
whether such new role can be adopted without computerising its functioning and systems,

6) What will the likely role of the Universities in the coming millennium,

7) Can Universities perform new role without mechanising and adopting the Information Technology.

The answers to such issues obviously lead to one and ultimate conclusion that computerisation of University services has become the need of the hour. Though it must not be necessary presently to fully automatise and computerise the entire structure of these institutions of higher learning but in days to come the existing procedure will have to be mechanised. Then only the Universities can justify their existence. Today's situation is complexed and careful training is necessary to avoid inefficient and the waste of scarce resources. Hence, the purpose of computerising Information System of the University is rightly justified.

**Towards electronics University and paperless office**

This is the beginning of the new era. In days to come, every organisation, whether small or big, will be controlled, administered and managed by means of Computers and Information Technology. The days are coming when there will be a complete paperless office, where most of the administrative functioning will be performed by using Personal Computers, Local Area Network and other Information Technology equipments.
The change from manually managed systems to Computerised Information Systems will not only remove papers from the office but will make a drastic change in the attitude and approach towards administrative technique. Here, the question as to how Universities are going to respond to these changes becomes essential. With partial computerisation of its system and structures, Universities now can make a right beginning to accommodate themselves in the coming age of modern technology. Complex administration of the University will be simplified and can be simplified only if computers are rightly put to use. For this purpose a partial computerisation now has become inevitable. In the Western countries, educational experts and administrative officials are visualising totally electronics University which will not only be user-friendly but also will help the students in taking their examination on any point, time and assessing their qualitative abilities. The examination systems are becoming more transparent, quick and like in western countries, any-time-examination concept will come to India very soon. If the teachers and the staff of the University decides to computerise the whole process of University administration then the concept of Electronic University will no-longer be a distant dream. In a small period of a decade or two the entire functioning of the University will be fully computer based.
EPILOGUE

The present research is conducted to know probabilities and potentials of developing a suitable M.I.S. for University set up. The researcher has made attempt to find out the areas where computerisation is possible and how as well as to what extent such computerisation can be made.

To conclude it can said that "the time has now come to computerise administrative systems and information systems of the University". This will facilitate in quick as well as prompt decision making, impartial and efficient administrative setup. It will take the Universities towards, transparent, credible systems of imparting Higher Education. The constraints of funds, manpower and time are growing, thus burdening the Universities in many ways. The challenges before the entire gamut of Higher Education are also on rise. Under such circumstances, the only solution is to develope a quick and efficient administrative system. The basic requirement of such an efficient administration system is to develope suitable Management Information System which can be established, if functioning of the Universities is computerised partially and thus the systems are made more user-friendly.

At the end, the researcher concludes that the computerised management system is justified on the parameters of cost, time, efficiency and reliability. In order to improve functioning of the University, research of such kind has become the need of the hour.