

Experiences in membrane protein crystallography
or
Asymmetry in S.typhi OmpF channels
or
Science and Research in State Universities

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Flow

- What is an University?
- State Universities and importance
- Selected examples of outstanding science and research from State Universities
- Example of the growth and decline of a State University
- What ails State Universities?
- Remedies

Summary

- State Universities are crucial for research environment and catalysis of ideas in the country.
- Good researchers, teachers, students in State Universities need to be identified and nurtured.
- The growing problems of corruption and conversion into teaching shops of the State Universities need to be tackled as this cancer will spread to other educational and research institutions.

What is an University?

- Woods despatch of 1854 – to have Universities modelled on London University structure with the purpose of awarding of degrees and conducting examinations
 - Establishment of Calcutta, Bombay and Madras Universities 1857 and 10 other universities till 1923
 - Madras University Act 1928 introduced research, Bombay University Act 1928
- “The University teachers are not over-burdened with routine duties in teaching, and are encouraged to undertake research”

“One of the fundamental functions of the University, as I understand it, is to provide facilities for bringing the highest education to the doors of the needy and the poor. I do not think that any University in any civilised country can justify its existence if it merely deals with the problems of examinations and the granting of degrees.”

“One of the greatest defects from which this University has suffered ever since it was established was that it was primarily constituted as an examining body.... it must be realised that the University cannot succeed in promoting research or in promoting higher education, if it makes the examination system the be all and end all of its existence.”

....Ambedkar in debate on Bombay University Amendment Bill 1927

What is an University?

- The Auxiliary Committee of the Indian Statutory Commission (Simon Commission) 1929 :

"But the theory that a university exists mainly, if not solely, to pass students through examinations still finds too large acceptance in India; and we wish that there were more signs that the universities regarded the training of broadminded, tolerant and self-reliant citizens as one of their primary functions. They have been hampered in their work by being over-crowded with students who are not fitted by capacity for university education and of whom many would be far more likely to succeed in other careers".

What is an University?

- University Education Commission 1948 with members such as Meghnad Saha, S. Radhakrishnan, Lakshmanaswami Mudaliar,:
“universities should provide the best teaching over the entire field of knowledge of which its own resources may permit, that they should offer this teaching to the widest range of students irrespective of class, sex, caste or religion, **that they should extend by original inquiry the frontiers of learning** and, above all, would and shape students not merely by the training of the intellect but by the disciplining of the spirit”

What is an University?

- Indian Education Commission (Kothari commission) 1964:
“Research in universities requires increased support, and the research institutions should, as far as possible, function within the fold of universities and in intimate association with them.”

“A University stands for humanism,
for tolerance, for reason,
for the adventure of ideas and
for the search of truth.
It stands for the onward march of the
human race towards ever-higher
objectives.
If the Universities discharge their
duties adequately, then it is well with
the nation and the people”.

...Jawaharlal Nehru

What is an University?

- Ambedkar, Nehru and others :
Not just for awarding degrees
Meeting of minds, diversity of areas
Co existence of arts, humanities, sciences
- University Grants Commission 1956
- Research and teaching
- Affiliated colleges: Teaching
- Centre and State : Education in the concurrent list
- Colonial legacy : archaic statutes
- Growth of research/teaching institutes – deemed universities

The state of State Universities

From UGC 2014

- 666 (355 : 2005-06) universities –
 - 45 (20) Central,
 - 313 (216) State, 175 State Private
 - 129 (101) Deemed to be Universities (TN highest 28)
 - 4 (5) Institutions established under State Legislation
 - 0 (13) Institutions of National importance
 - 39,671 (18,064) colleges

The state of State Universities

- Top 50 Universities: 26% of Indian S&T publications
% of Cited papers: 52%-86%
- Papers from State Universities cited more than Central Universities (1998-2008)
- Annually ~75,000 students are enrolled in research
~11,000 are awarded Ph. D. every year
50 % are from Science & Technology
- 10.49 lakh teachers (82.7% colleges, 17.3% Universities)(2013)

The state of State Universities

From UGC 2014

- Out of the plan grants (Rs 5348.26 crores) released during 2013-14, (Rs 786 crores 2005-06) 47.93% had gone to Central Universities (27.54%)
3.17% to Deemed Universities (3.63%)
17.06% to state universities (26.46% incl colleges)
1.68% to Colleges of State Universities.

The state of State Universities

- Major share of funds from funding agencies goes to National Institutes and Central Universities
- Steady reduction in students with CSIR,DBT JRF fellowships
- Most fellowships from UGC Non-NET, RGNF
- Faculty of state universities get sidelined in awards, membership of academic bodies and decision making committees

Why bother about State Universities?

- Accessibility to a larger cross section
- Closer to the common citizen
- Representative of the geo-social variations
- Feeds different institutions and spheres of activity
- Fertile ground for cross fertilisation
- Marginalised status

Science and State Universities

- Way of thinking: worldview
Copernicus, Darwin..
- Instrument for democratic practices
remove Feudal attitudes
- Need for experimentation
Dealing with Reality
- Cooperation and Collaboration
Interactions

Research in State Universities

- S R Ranganathan “Father of Library Science in India”
1923-1944 : Librarian, Madras University
1945-1947: Benares Hindu University
1947-1955: University of Delhi



Five Laws of Library Science

Books are for use.

Every reader his / her book.

Every book its reader.

Save the time of the reader.

The library is a growing organism.

Colon classification

Research in State Universities

- TS Sadasivan

1944-1973 : Botany, Madras University



Mycology

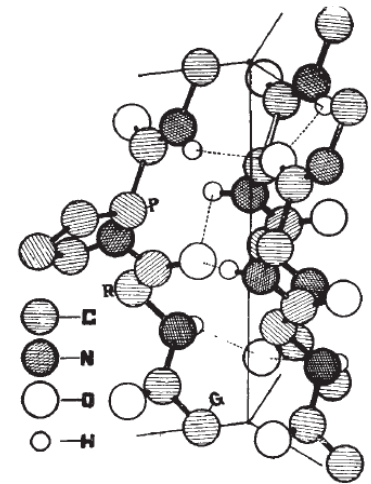
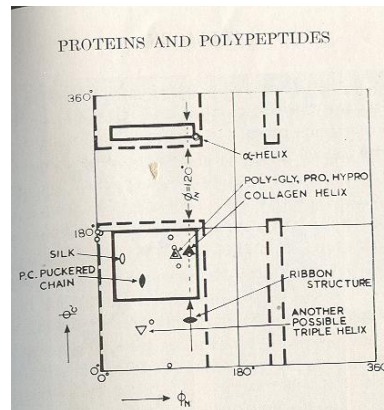
Plant Pathology

Research in State Universities

- G N Ramachandran

1952-1970 : Crystallography and Biophysics,
Madras University

Collagen



Ramachandran Plot

Madurai Kamaraj University :

How to grow an University–

Appointment of Good VCs and faculty

The combination of a visionary Head of Biology – Prof. S. Krishnaswamy - from 1966 when the extension centres of Madras University were made into the Madurai Kamaraj University along with successive good Vice-Chancellors (Dr. TP Meenakshisundaram, Dr. Mu Varadarajan, Prof. S. V. Chittibabu, Dr. V. Sp. Manickam) led to a series of appointments in the 1970s of committed faculty like Dr. TJ Pandian, Dr. MK Chandrashekar, Dr. R. Jayaraman, Dr. J. Jayaraman, Dr. VR Muthukkaruppan, Dr. G. Shanmugam.

Madurai Kamaraj University: How to grow an University— **Appointment of Good VCs and faculty**

These faculty inspired students and were a role model to many students who also later, like Dr. K. Dharmalingam, became faculty in the School of Biological Sciences.

The tenure of Prof. S. Krishnaswamy as Vice-Chancellor from 1985-88 gave a filip to the research and teaching programmes in Biology.

The absence of many Institutes also ensured that whatever Biology research happened at MKU got recognition.

personal experience

- Joined a state University (Madurai Kamaraj University) in 1990 rather than a national institute
- Good research ambience and environment
- However in the recent past, there has been overall degradation of the academic environment
- Took Voluntary Retirement under VRS in Sept 2015

Professor M. Anandakrishnan, ex Vice-Chancellor Anna University, member of Yash Pal Committee and Chairman of IIT Kanpur on Oct 9, 2010 said:

“The State University systems are scandalous. The price of a Vice-Chancellor is Rs 10-20 crore and touts collect money all the way from Raj Bhavan to Secretariat. Even appointment of syndicate members is a corrupt process.”

From The New Indian Express Saturday Oct 10, Chennai....page 2

IIT boss calls univ system scandalous

**Express News Service
Chennai, October 9**

IN what turned out to be an explosive discussion on higher education, M Anandakrishnan, Chairman of IIT-Kanpur and a member of the Yash Pal Committee, slammed the education system in India in general and Tamil Nadu in particular.

“The State university systems are very scandalous. The price of a vice-chancellor is Rs 10-20 crore and touts collect money all the way from Raj Bhavan to Secretariat. Even appointment of syndicate members is a corrupt process and paid for. Private colleges deny capitation fee but we know that a MD seat costs somewhere around Rs 1.5 crore, while an MBBS seat will cost Rs 50 lakhs. Engineering seats come for Rs 15 lakhs,” he said.

The forum was an interactive session between the National Knowledge Commission and the Yash Pal Committee report on higher education, organised by the CII. Anandakrishnan went on to highlight how the concept of a university is wrongly perceived in India. “Universities are not factories producing graduates or places where degrees are awarded. Universities are meant to engage young minds. Over the years, there has been lot of cubicalisation of educational streams. Right from

Money power

The price of a vice-chancellor is Rs 10-20 crore and touts collect money all the way from Raj Bhavan to Secretariat. PhDs are sold to professors for Rs 30 lakh. Deemed universities are a rotten concept altogether

Current Problems of TN Universities

- VC appointments over the last ten years based on money, political connections
- Incompetent VCs who think the University is meant for making money for themselves
- Victimisation of those who dissent – culture of sycophancy or silence and increasing feudal/casteist dominance
- Corruption in appointments of University officials and faculty
- Aided affiliated College teachers appointments plagued with similar problems.
- Students being made the last priority by the administration.
- The Universities being viewed as places for providing employment rather than research and teaching.
- Conversion of Universities into teaching shops with the introduction of 'self-financed' courses.

TN Universities not unique

Increasing instances of problems
with VC appointments

Mahatma Gandhi University

Delhi University

Pondicherry University

and others...

“Political interference in the appointment of vice-chancellors is unfortunately an all-India Phenomenon. It is not just political interference or corruption involving crores of rupees. There are also organised efforts such as by associations of private colleges to bank roll for influencing appointment of pliable persons as VCs of affiliating State universities. It is a matter of shame that in some States, persons are willing to bribe even to be appointed as members/ chairpersons of search committees of VCs. Such efforts are far more vulgar and scandalous in some States than others.”.....

***Prof. M. Anandakrishnan,
Chairman IIT Kanpur***

“The quality of education suffers even when an unqualified faculty member gets appointed in a university. If vice-chancellors lack merit, then the system fails.”

***... Prof. A. Gnanam,
who has been
Vice-chancellor in Pondicherry,
Bharathidasan and Madras
Universities***

How to remove vice from VC APPOINTMENTS?

A Transparent Selection Process, Independent Search Committee Members And Strict Adherence To UGC Norms Needed To Keep VC Appointments Above Board

ToI chennai 6 Oct 2014

Adarsh Jain@timesgroup.com

The role of the search

Times of India Chennai 6 Oct 2014

Once Education became a commodity for sale under GATT, corruption in Education is endemic not only to India or TN. But, closer home it is alarming and the effects can be disastrous for all of us, eventually. So we must try to resist and stop the corruption in every local instance.



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One-Minute World News

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Corruption 'damaging education'

Bribery and corruption damage universities and schools across the world, according to a report for the UN's education wing, Unesco.

The study says education is plagued by rigged tendering processes, academic fraud and bribes over places and posts.



Fake degrees on the internet

Summary

- State Universities are crucial for research environment and catalysis of ideas in the country.
- Good researchers, teachers, students in State Universities need to be identified and nurtured.
- The growing problems of corruption and conversion into teaching shops of the State Universities need to be tackled as this cancer will spread to other educational and research institutions.

Thank you



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