POLICY NOTE

DEMAND NO.20 - HIGHER EDUCATION

2014-2015

INTRODUCTION

"**Higher education improvement is high on the agenda of my Government with emphasis on expansion, inclusion and excellence as pillars of higher education. My Government has taken and will take all possible measures to augment the much required and treasured human resources.**"

> **Hon'ble Chief Minister of Tamil Nadu at the 34th Convocation of the Anna University**

1.1 The avowed vision of the **Hon'ble Chief Minister** of Tamil Nadu is to attain pre-eminence in higher education, along with other sectors, and unequivocally establish Tamil Nadu as the numero uno State in India. It is the cherished goal of the

Hon'ble Chief Minister that the Government spreads the light of knowledge among the youth who are the pillars of this Great Nation. The Vision 2023 document of the **Hon'ble Chief Minister** has envisaged for Tamil Nadu a higher growth trajectory in the Human Resource Development Sector. Quality initiatives of a high order have been put in place to translate the Vision into reality. This document envisages quality education for all, Research, Training, Developing Infrastructure Facilities, Skill Development, Increasing Employment opportunities and training plans for entrepreneurship initiatives, in the Higher Education arena.

1.2 The Higher Education Department, accordingly, takes appropriate measures to provide world class higher education at affordable costs to each and every learner and ensures that a dedicated band of competent workforce is created in

the process. In order to prepare the youth to ably face the demands and challenges of this century, the Department focuses on accessibility, inclusivity and excellence in higher education. Striving to meet the noble aim of the **Hon'ble Chief Minister**, the Higher Education Department has been creating robust opportunities for providing world class higher education to the rural youth as well as to the socially and economically disadvantaged. The youth are thus sufficiently prepared to face the competition in the national and multinational employment markets, with confidence.

1.3 Paramount importance is given to girls' education with the objective of not only freeing them from the stereotypical societal expectations but also enabling them to become socially and economically independent. Furthermore, keeping in view the priority accorded by the **Hon'ble Chief Minister** for the welfare of the differently

abled students, the Higher Education Department provides equal opportunities to them, making education inclusive.

1.4   The **Hon'ble Chief Minister** has envisaged education as a catalyst for social change and the vision of the Department is:-

(a)   To make   Institutions of Higher Education emerge as Centres of Innovation, Excellence and Development.

(b)   To provide world class quality education especially to students from rural and backward areas and marginalized families and to develop, recognize and enhance talent and skills in youth.

(c)   To equip and enable youth to meet the emerging challenges and demands of the century with due emphasis on inclusion in higher education.

1.5   The guidance of the **Hon'ble Chief Minister** has outlined the mission of the Department which is:-

"To promote Human Resource Development through self-actualized Institutions, producing high quality ethical professionals in sufficient number to make this State and Country prosperous, and to make Tamil Nadu a global hub for University Education".

1.6   The Government of Tamil Nadu is poised to provide learning environment conducive to motivating the faculty and the students, to undertake research and to create for themselves core competencies of a high order.   The building of a knowledge capital goes hand in hand with moulding the youth to become enlightened citizens contributing to nation building.

TOWARDS INCREASING ACCESS AND EQUITY

1.7 In the words of the **Hon'ble Chief Minister** "The State Government is committed to renewing the people's faith in good governance and in a socially just and equitable process of development". To ensure access and equity, the **Hon'ble Chief Minister** has ordered the establishment of Arts and Science Colleges; Engineering Colleges and Polytechnic Colleges spread across the length and breadth of the State. As never before in the history of education 12 Government Arts and Science Colleges, 24 University Constituent Arts and Science Colleges, 11 Government Polytechnic Colleges and 4 Government Engineering Colleges and one Indian Institute for Information Technology (IIIT) at Srirangam have been opened in the past three years starting from 2011. The Indian Institute of Information Technology, an iconic Public

Private Partnership venture involving the Government of India, the State Government and Industry as partners, meets the requirements for skilled human resource in the field of Information Technology. The establishment of these institutions of higher learning has taken Higher Education to far-flung areas hitherto unreached, and thus has become a dream come true for the underprivileged sections of the society.

INFRASTRUCTURE FACILITIES

1.8 Since, establishment of institutions without proper and essential infrastructure facilities will not yield the desired outcomes, the **Hon'ble Chief Minister** has sanctioned Rs.100 crore for infrastructure developments in all the Government Arts and Science Colleges, University Constituent Arts and Science Colleges and Colleges of Education in the State.

1.9 This gesture of the **Hon'ble Chief Minister** has been hailed as an investment in knowledge by educationalists, economists, social activists and all stake holders in the higher education sector. Similarly, a sum of Rs.150.00 crore has been sanctioned to Anna University to meet the infrastructure requirements of technical Institutions in the emergent scenario of a knowledge explosion society, aligned to the rapid development in the field of technology.

TOWARDS EXCELLENCE

1.10 Manifesting the cherished aspirations of the **Hon'ble Chief Minister**, the Government have been implementing special programmes for enhancing the quality of Higher Education, to create a new generation of well equipped and well informed young men and women. These special schemes have helped, the Higher Education Department in addressing among others the challenges of making the teaching

- learning process robust. There is regular and continuous updating of curricula reflecting latest innovations that are revitalizing Higher Education. Extensive use of Information Communication Technology is another major breakthrough which has resulted in the efficacy of the Teaching-learning process.

SPECIAL INITIATIVES AND PROGRESSIVE SCHEMES

1.11 In the light of technological developments taking place across the globe, Innovative Technology Aided Class rooms have become essential in order that techniques of teaching keep pace with the changing times. Smart Class rooms with Video Conferencing facilities have been established in 10 Universities at a cost of Rs.2 crore. The teaching-learning experience has become easier and interactive and it has led to the networking of colleges, resulting in the sharing of knowledge and technology. The Establishment of Smart Classrooms has

been a path breaking initiative in that best practices across higher educational institutions, have been made available to both students and teachers revitalizing the teaching – learning experience in the class rooms.

1.12 Language Skills have become very significant in an era of globalization. To improve the language skills of our students, Foreign Language Laboratories have been established in 10 Universities at a cost of Rs.1.5 crore. These language laboratories enable our students to learn English, Chinese, Japanese, German, etc., with ease and guarantee confidence for the students to meet the offers in the world job market.

1.13 One of the major issues in education is that the students are not employment ready and are not abreast with the needs of industry. To meet this requirement, Entrepreneurship cum Skill Development Centres have been established

at a cost of Rs.2 crore in 10 Universities. Students today are exposed to career options available and are helped to secure employment, through developing entrepreneurial skills inherent in them. The Entrepreneurship cum Skill Development Centres have not merely triggered creativity in our students but have also enhanced relevant skills, a key factor for securing employment.

1.14   Another major step taken forward towards excellence in education is creation of a platform for bringing expertise from foreign countries in order that our students gain insights into international practices and strategies.   Accordingly, a scheme of inviting academicians from renowned Universities was introduced in 10 Universities at a cost of Rs.1 crore.

1.15 Curriculum development is at the root of all educational reforms. Educational experiences to be offered to students must

be planned meticulously by the institution in consonance with developments taking place at the national and international levels. The curriculum must relate to the transitions and paradigm shifts and not merely focus on factual knowledge. While instilling vital life skills to restructure and upscale curricula on the above lines and to make students industry ready, Curriculum Development Cells have been established in 10 Universities at a cost of Rs.10 crore.

1.16 A total of 797 new courses, 101 during 2011-12, 298 during 2012-13, 398 during 2013-14 have been sanctioned to Government Arts and Science Colleges along with 1805 posts of Assistant Professors. The introduction of new Courses along with the creation of the teaching posts has offered a wide range of opportunities to students, while fulfilling the commitment of the Government to assure access equity and excellence in Higher Education. In short,

the Higher Education system has become responsive to the needs of the learners.

1.17 In 6 Universities viz., University of Madras, Manonmaniam Sundaranar University, Bharathiar University, Bharathidasan University, Madurai Kamaraj University and Alagappa University, University Business Collaboration Centres have been established at a cost of Rs.1.98 crore and the Tamil Nadu State Council for Higher Education is the Nodal Agency. The University Business Collaboration Centres act as co-ordinating Agencies for bringing together industries, Universities and business houses in Tamil Nadu, India and abroad. This co-ordination helps in creating industry oriented skills increasing the employability of the students.

1.18 A milestone initiative, the Study Abroad Programme for faculty and students has commenced with the signing of a Memorandum of Understanding between the

Tamil Nadu State Council for Higher Education and British Council in the presence of the **Hon'ble Chief Minister**. Under this scheme, students and faculty members will study one semester in the Universities in the United Kingdom with financial assistance from the Government at Rs.15 lakh for each student / faculty. The Government have sanctioned Rs.450 lakh for 25 students and 5 faculty members to undergo one semester in the Universities / Colleges in the United Kingdom. A first of its kind in the whole country, this scheme has become a dream come true for students from the economically, socially weaker sections of the society to study abroad thanks to the foresight of the **Hon'ble Chief Minister**. The Study Abroad programme has helped our students to make a mark in the expanding competitive environment where not merely talent, but drive, competence, initiative, exposure and innovation at all

levels are required. The contribution of the **Hon'ble Chief Minister** to the student community through this scheme has been applauded by administrators teachers, students, educationalists and all interested in the future of Higher Education, in Tamil Nadu.

1.19 Every education system aims at making the students equipped for the future, especially with reference to employment opportunities. Writing skills are very important in communication and students who come out of the Higher Educational Institutions must be well prepared for writing academic reports (professional writing) and drafting all forms of written communication. To help students acquire the writing skill, Centres for Technical and Academic Writing have been established in 9 Universities viz., University of Madras, Manonmaniam Sundaranar University, Bharathiar University, Mother Teresa Women's

University, Bharathidasan University, Madurai Kamaraj University, Periyar University, Alagappa University and Thiruvalluvar University, at a total cost of Rs.90 lakh.

1.20 Universities must be sources of information and knowledge for students, faculty and other stakeholders particularly, the industry. Incubation and Technology Transfer Centres have therefore been established in 9 Universities, viz., University of Madras, Manonmaniam Sundaranar University, Bharathiar University, Mother Teresa Women's University, Bharathidasan University, Madurai Kamaraj University, Periyar University, Alagappa University and Thiruvalluvar University at a total cost of Rs.2.69 crore. These Centres will create, store, develop and network learning resources not merely for the academia but for the entire community. They will also disseminate and spread innovative

technology among communities and commercialize new technologies for the good of the general public.

1.21 Quality inclusive education with potential for self development for the differently-abled has been one of the priority issues for the Higher Education Department. To help students overcome learning disabilities, Centres for Multi Modal Material Production for the differently abled have been established at a cost of Rs.5 crore in 10 Universities, viz., University of Madras, Manonmaniam Sundaranar University, Bharathiar University, Mother Teresa Women's University, Bharathidasan University, Madurai Kamaraj University, Periyar University, Alagappa University, Thiruvalluvar University and Tamil Nadu Open University.

These Centres have facilities to bring out braille books with or without tactile graphics in English and Tamil based on the

needs of the students. Heavy duty braille printers (embossers) for high speed production and personal computers to create data bank, facilitate these centres. In short, the differently abled students will be helped in a big way with computer assisted multi-media packages.

1.22 In a strategic move to take post graduate education to the distant areas of the state Post Graduate Extension Centres have been opened in Peramballur, Erode, Kanyakumari, Dharmapuri and Virudhunagar Districts through the Universities concerned. Rural students benefit through the Extension centres and will achieve competencies like their counterparts in urban areas. The high-tech laboratories in these Extension centres will help the rural youth to involve in research and development.

1.23 Slow learners and below average students in Government Arts and Science Colleges have been brought under a special

scheme enabling them to cope with the learning process and emerge successful. Rs.30 lakh has been sanctioned for this scheme. Prevention of dropouts in Higher Education is the other outcome of this scheme.

1.24 Astonishing developments in Information Communication Technology and Human Resource Development have become the driving forces in today's world. With employment opportunities in these fields increasing manifold, team work initiatives, leadership qualities, attitude and personal skills are required to be developed in students. Soft skills Centres have been established at a cost of Rs.1.35 crore in 30 Colleges under University of Madras, Thiruvalluvar University, Madurai Kamaraj University, Bharathidasan University, Bharathiar University for empowering students to cope with stress, demands, challenges and gain

employability skills, entrepreneurship skills, English language skills, communication skills, interpersonal skills, problem solving skills, professional etiquette, creativity, networking and time management along with a degree, when they complete the Course. The students reap enormous benefits from learning nearly 60 types of soft skills identified by the World Job Skill Consortium.

1.25 The Tamil Nadu Open University has established Community Colleges in four Districts, viz. Coimbatore, Dharmapuri, Madurai and Tiruchirappalli and will be establishing Community Colleges in all the Districts in the State in a phased manner at a cost of Rs.10.82 lakh per college. These Community Colleges will handhold the local communities providing them with vocational educational programmes assuring self-employment opportunities to raise their standards of living.

1.26　　　Tamil Nadu Open University has also established Zonal Centres at Srirangam, Madurai, Dharmapuri and Coimbatore to enable their students in rural areas to have easy and immediate access to information and learning materials. The Chennai Centre is being established. The cost per centre is Rs.22.56 lakh.

1.27 In 10 Universities, viz., University of Madras, Manonmaniam Sundaranar University, Bharathiar University, Mother Teresa Women's University, Bharathidasan University, Madurai Kamaraj University, Periyar University, Alagappa University, Anna University and Thiruvalluvar University, Post Graduate Centres of Excellence with technologically sound high-tech laboratories have been established at a cost of Rs.25 crore. These Centres will offer Post Graduate Education to students in a quality assured learning environment.

1.28 Anna University in collaboration with Science City is in the process of networking all libraries in Engineering Colleges and Universities enabling students to access journals, books, learning materials with the help of internet. This networking of libraries will encourage active student participation and will make the teaching learning process more equipped in the present scenario of knowledge explosion.

BUILDING A PROFESSIONAL KNOWLEDGE DRIVEN STUDENT COMMUNITY

1.29 Excellence in computing skills has become the hall mark of the teaching / learning activity. The scheme of distribution of priceless laptop computers to the students studying in Government / Government Aided Arts and Science Colleges has heaped benefits on the youth, equipping them with computational intelligence techniques. The scheme has been acclaimed all over the world as a flagship programme with more

than 5 lakh students as on date entering the current technological stream.

1.30   This scheme reflects the keen interest evinced by the **Hon'ble Chief Minister** to upskill our students in keeping with the unprecedented growth in the field of Information and Communication Technology.

1.31   The ICT Academy of Tamil Nadu with the objective of training faculty members in the ICT domain has trained 7564 teachers in Higher Education.   The faculty development program of ICT bridges the gap between the Academia and the Corporate sector.   The use of ICT also empowers teachers to amalgamate traditional teaching tools with technology based teaching.   Teachers thus trained develop student's capabilities to suit the requirements of the industry and the present world.

1.32 Computing knowledge in Tamil has also become essential today, particularly for

teachers in Government Schools. To fulfil this need, a Tamil Computing Centre has been established at a cost of Rs.25 lakh at Periyar University, Salem. The training includes presentations, hands on lab exercises and in house assignments in order to equip the teachers in Tamil Computing Skills. These teachers will in turn impart training to students making them proficient in Tamil computing.

1.33 Environmental preservation and conservation of energy are important factors for human development. Awareness about the immediate need for maintaining the ecological balance is even more important. A centre for new and renewable energy studies has been established at a cost of Rs.25 lakh at Periyar University, Salem. This centre will offer research programmes on renewable energy management and suggestions to carryout training programmes, seminars and workshops on

this subject viz., protecting water bodies, eco systems, conservation of zoological and botanical diversity of the State, protection of the soil and forests, ensuring minimal impact on environment etc.

1.34   Empowerment of women is an integral part of the development of any society. The Government is determined to empower women through education, providing them skill development, and creating an environment conducive for blossoming to their full potential. The Government and the Common Wealth University in a joint venture have established the Tamil Nadu Common Wealth Mother Teresa Women's International Centre in Mother Teresa Women's University, Kodaikanal. To begin with, a sum of Rs.5 crore has been sanctioned towards the establishment of infrastructure facilities at this Centre.

1.35 Swami Vivekananda, the illustrious son of our country, worked tirelessly for the upliftment of the society through education and he believed that education is the panacea for all social evils. To disseminate the powerful teachings of Swami Vivekananda among the youth, the **Hon'ble Chief Minister** ordered the establishment of Swami Vivekananda Research and Educational Centres in nine Universities viz., Madurai Kamaraj University, Bharathiar University, Bharathidasan University, University of Madras, Manonmaniam Sundaranar University, Alagappa University, Thiruvalluvar University, Periyar University and Mother Teresa Women's University. The inspiring speeches of this great Seer will now reach the youth instilling in them patriotism, discipline, dignity and religious tolerance.

1.36 Tourism is one of the fastest growing industry in Tamil Nadu which has

natural environment and heritage sites of immense cultural value. To create employment opportunities in this sector, a Centre for Tourism and Hotel Management has been set up in Madurai Kamaraj University and a 5 year integrated PG Course in Tourism and Management is being offered from the academic year 2013–14.

1.37 To transform Madurai Kamaraj Campus as "Green Campus", a sum of Rs.2.90 crore has been earmarked to implement the following programmes:

1. To reduce waste and prevent pollution.
2. To recycle water and waste materials.
3. To meet the electricity requirements through solar power generation.
4. To reduce electricity consumption by replacing street lamps with LED lights.
5. To recycle solid waste into useful manure.

1.38 Inclusive education aims at removing barriers that stand in the way of

the differently abled to receive the benefits of education like others. The learning needs of students with disabilities are not different from normal students. The Government with foresight have drawn a scheme to provide training in Information Communication Technology for the differently-abled. The Government have sanctioned Rs.11.40 lakh for setting up an ICT enabled inclusive training centre for the differently abled in Bharathidasan University.

1.39 An ICT enabled self employment training centre for women has been established with a sanction of Rs.11.80 lakh in Bharathidasan University. This center will expose rural women to the developments in the field of Information Communication Technology. The center will develop in rural women, skills that would provide opportunities for employment making them partners in economic and social progress.

1.40 Another landmark achievement of the Government is the enactment of legislation in 2011 merging the Anna Universities of Technology functioning at Trichy, Coimbatore, Tirunelveli, Chennai and Madurai with Anna University, Chennai, in order to restore the past glory of Anna University. The Act which came into force on 1.8.2012, has brought all Engineering Colleges under one umbrella. All the Engineering Colleges in the State are now under Anna University, Chennai which is one of the best technical universities in the country.

1.41 The aspirations of the youth especially from a disadvantaged background to enter Higher Education institutions have increased manifold. Widening participation of students from all strata of society being one of the key objectives of the Government, the establishment of new institutions across the length and breadth of the State has borne

rich fruits. Fully committed to convert the vision of placing Tamil Nadu on the pedestal of growth in Higher Education, the **Hon'ble Chief Minister** has taken definite and concrete steps to implement schemes for ensuring quality in Higher Education. Innovations on the one side, Research and Development on the other have direct relationship and enhances teaching and learning outcomes. Special programmes and schemes including skill development initiatives have been put in place creating an atmosphere which has lead to sustenance of knowledge and increasing employment opportunities.

1.42 The off shoot of the efforts taken by the Government has resulted in the Gross Enrolment Ratio reaching 38.2% in higher education as against the national average of 20.4%. The expansion of institutions and the quality framework provided, have made history.

1.43 The **Hon'ble Chief Minister's** determination and legendary passion for the all round development of the State, has offered a large canvas for Higher Education to contribute to peace prosperity and development.

1.44 The words of the **Hon'ble Chief Minister** whose concern for the youth knows no bounds, will lead them to the zenith of achievements.

> **"You have a social responsibility - a responsibility that cannot be shirked, or shrugged off as insignificant. You must retain in you the spirit of trusteeship and contribute substantially to your roots, the Society around, the institutions that brought you up and the State and the Nation at large. The real road to contribution and Nation building begins today. I will be watching you as you bloom into ambassadors of change. Tamil Nadu is on the road to being the numero uno State in the Country. You will all be integral to it".**
>
> **Hon'ble Chief Minister of Tamil Nadu at the 34th Convocation of Anna University**

Financial Outlay: 2014-15

Under Demand No.20 Higher Education, the total outlay is Rs.3627.93 crore, of which Rs.1133.40 crore are for plan schemes and Rs.2494.52 crore are for non-plan schemes.

BUDGET ESTIMATE FOR 2014-15.

Head of Account		Plan	Non-Plan	Total
		(Rs.In lakh)		
2059	Public Works Maintenance and Repairs	--	2661.19	2661.19
2202	General Education University and Higher Education	7976.50	207481.33	215457.83
2203	Technical Education	75121.20	37525.19	112646.39
2204	Sports and Youth Services	1296.84	-	1296.84
2205	Arts and Culture Archives	10.00	705.87	715.87

2235	Social Security and Welfare	-	60.16	60.16
2251	Secretariat Social Services	-	385.40	385.40
3425	Other Scientific Research	115.60	577.35	692.95
3454	Census surveys and statistics Gazetteer and Statistical Memoirs	-	56.22	56.22
4202	Capital outlay on Education, Sports, Arts and Culture	28820.19	--	28820.19
7610	Loan to Government servants etc.	-	0.01	0.01
	Total	**113340.33**	**249452.72**	**362793.05**

PART II SCHEMES FOR THE YEAR 2014-15.

PART – II SCHEMES – 2014-15			
(Rupees in lakh)			
Sl. No	Name of the Scheme	Ultimate cost	Cost in 2014-15
I	**Secretariat**		
1	Purchase of 1 heavy duty multi functional Printer	1.00	1.00
	Total	1.00	1.00
II	**Directorate of Collegiate Education**		
	COMPONENT -I		
2	Construction of 15 Additional Class rooms in Rajeswari Vedhachalam Government Arts College, Chengalpet	170.50	170.50
3	Construction of Nutrition and Dietetics Lab in Muthurangam Government Arts College (Autonomous), Vellore	110.00	110.00
	Total	**280.50**	**280.50**

III	**Directorate of Technical Education**		
	Component –I		
4	Construction of Second Floor for Examination wing for Question Paper storage confidential room.	82.50	82.50
5	Purchase of 1 (125 KVA) Diesel Generator set for Examination wing Building of Directorate.	15.73	15.73
6	Purchase of Desktop Computers, Printers, UPS and Scanner for all the sections.	25.40	25.40
7	Purchase 2 Jeeps (in lieu of condem vehicles) for Executive Engineer, PWD Technical Education Division, Tirunelveli and Madurai.	12.00	12.00

8	Purchase of Desktop Computers, Printers with Computer table and chair for the office of the Chief Engineer (PWD), Technical Education (Circle), Divisions and Sub-divisions.	24.60	24.60
9	Computerization of integrated Polytechnic Student Management Systems.	125.00	125.00
10	Upscaling power wiring in various machines in Government Polytechnic Colleges and providing additional ceiling fans.	32.55	32.55
	Total	**317.78**	**317.78**
	Component – II		
11	Establishing Smart Class rooms in 12 Government Polytechnic Colleges.	120.00	120.00
12	Establishing Campus Wide Networking in 9 Government Polytechnics	144.00	144.00
	Total	**264.00**	**264.00**

IV	**Tamil Nadu Archives and Historical Research**		
	COMPONENT -I		
13	Digital Scanning and Microfilming of Mended Records of pre 1900 and records of post 1900.	10.00	10.00
	Total	**10.00**	**10.00**
V	**Tamil Nadu Science and Technology Centre**		
	COMPONENT -I		
14	Establishment of Evolution Park in Anna Science Centre – Planetarium, Thiruchirappalli,	70.00	70.00
15	Provision of four portable Planetariums, viz., Chennai, Tiruchirappalli, Vellore, Coimbatore Centres	40.00	40.00
	Total	**110.00**	**110.00**
	COMPONENT -II		
16	Astronomical Observatory at Periyar Science and Technology Centre, Chennai.	40.00	40.00
	Total	**40.00**	**40.00**
VI	**Tamil Nadu State Council for Science and Technology**		
17	Improvement of Science and Technology Infrastructure facilities at Government Colleges	30.00	30.00
	Total	**30.00**	**30.00**
	Grand Total	**1053.28**	**1053.28**

2. TECHNICAL EDUCATION

2.1   The Government of Tamil Nadu have taken significant efforts to promote quality education in the field of Technical Education at the Engineering Degree and Diploma levels. At present, there are 10 Government Engineering Colleges, 3 Government-Aided Engineering Colleges, 18 Constituent Colleges of Anna University and 541 Self-Financing Engineering Colleges in Tamil Nadu. In the polytechnic sector, there are 41 Government Polytechnic Colleges, 34 Government-Aided Polytechnic Colleges, 3 Affiliated Polytechnic Colleges, 1 Film Institute, 1 Labour Institute and 15 Hotel Management and Catering Technology Institutions and 406 Self-Financing Polytechnic Colleges in Tamil Nadu. There are a total of 572 Engineering Colleges, 501 Polytechnic Colleges and 66 Self-Financing stand alone institutions offering MBA & MCA

Courses under the jurisdiction of the Commissioner of Technical Education.

ACHIEVEMENTS AND INITIATIVES

ESTABLISHMENT OF INDIAN INSTITUTE OF INFORMATION TECHNOLOGY

2.2 Indian Institute of Information Technology, Srirangam has been established at Srirangam, Tiruchirappalli District under the Public Private Partnership Mode. Under this scheme, the Government of India, the Government of Tamil Nadu and Industry have commited to run the institution with the main objective of catering to the skilled work force requirement in the field of Information Technology and allied areas. The total capital cost of the project is Rs.128 crore in the ratio of 50:35:15 (i.e. Rs.64 crore by Government of India – Rs.44.80 crore by the Government of Tamil Nadu and Rs.19.20 crore by Industries). The institution is currently functioning with

3 PG Courses (Computer Science Engineering, Software Engineering and Data Base System). Forty seven students have been admitted during the Academic Year 2013-14.

ESTABLISHMENT OF FOUR GOVERNMENT ENGINEERING COLLEGES

2.3 During the last 3 years, 4 new Government Engineering Colleges have been started. They are located in Bodi (Theni District), Chettikarai (Dharmapuri District), Sengipatti (Thanjavur District) and Srirangam (Tiruchirappalli District).

2.4 A total of 445 new posts under various categories viz., teaching, non–teaching and technical supporting staff, administrative staff have been created for these Colleges. During 2013-14, administrative and financial sanction of Rs.158.87 crore has been accorded for the construction of buildings for the new Government Engineering Colleges at

Sengipatti (Thanjavur) Chettikarai (Dharmapuri) and Srirangam (Tiruchirappalli). A sum of Rs.15.64 crore has also been sanctioned for the three Colleges for purchase of equipments, computers, library books etc.,

ESTABLISHMENT OF ELEVEN GOVERNMENT POLYTECHNIC COLLEGES

2.5 A total of 11 new Government Polytechnic Colleges have been established as per orders of **Hon'ble Chief Minister** and are functioning from 2013-14. The Polytechnic Colleges established in educationally backward districts are a boon to the students from the socially and economically weaker sections of the society. These eleven Polytechnic Colleges have been established in Srirangam (Tiruchirapalli District), Gandharvakottai (Pudukottai District), Sankarapuram (Villupuram District), Perunthurai (Erode District),

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Ariyalur (Ariyalur District), Uthangarai (Krishnagiri District), Jolarpet (Vellore District), Andipatti (Theni District), Usilampatti (Madurai District) and Checkanoorani (Madurai District) and Cheyyar (Thiruvannamalai District). 673 new posts have been created under various categories, viz., teaching, non–teaching and administrative staff for these Colleges. Sanction of Rs.172.16 crore has been accorded for construction of buildings. A sum of Rs.550 lakh has been sanctioned for all the Polytechnic Colleges at Rs.50 lakh per College for the purchase of equipment, computers, furniture, library books and e-journals.

FREE OF COST TEXT BOOKS

2.6 To help students hailing from the poor and marginalised families to pursue Technical Education, free text books are distributed to first year Diploma students in Government Polytechnic Colleges. 13,775

students have benefitted under this scheme and a sum of Rs.15,14,000 has been spent during 2013-14.

WAIVER OF TUITION FEES AND ISSUE OF FREE BUS PASS TO THE POLYTECHNIC COLLEGE STUDENTS

2.7   The schemes of waiver of tuition fees and issue of Free Bus Pass are continued for the students of Government Polytechnic Colleges.

ENGINEERING SEATS THROUGH SINGLE WINDOW COUNSELLING

2.8   Admissions to Under Graduate Engineering Courses in Government, Government Aided, Anna University constituent colleges and Self Financing engineering colleges are made on the basis of marks scored by the students in class XII board examinations, through Single Window Counselling System, by Anna University,

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Chennai. In the academic year 2013-14, 1,26,455 candidates were admitted.

DISTRIBUTION OF FREE OF COST LAPTOPS

2.9   Under this scheme, 1,43,058 free of cost Laptops have been distributed to the students of Government and Government Aided Engineering Colleges and Government and Government Aided Polytechnic Colleges.

TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP) – PHASE II

2.10 Technical Education Quality Improvement Programme (TEQIP) aims at improving the quality of Technical Education to   produce   high   quality   technical Professionals. TEQIP Phase-II, a Centrally Sponsored   Scheme   (CSS)   is   being implemented jointly by the Ministry of Human Resource Development (MHRD) and the State Government. The project cost is

shared between Central Government and State Government in the ratio of 75:25.

2.11 Four Government Engineering Colleges, Three Government Aided Engineering Colleges, one Constituent College of Anna University in BIT Campus, Trichy and Department of Computer Science and Engineering of Manonmaniam Sundaranar University, Tirunelveli have been selected for TEQIP-II from Tamil Nadu. Two Centres of Excellence (Alternative Energy and Environmental Studies) have been established in the Government College of Technology, Coimbatore under TEQIP-II. Since the launch of the project in 2012-13, a sum of Rs.62.28 crore has been released (Rs.46.71 Crore by Government of India and Rs.15.57 crore by Government of Tamil Nadu).

FIRST GRADUATE TUITION FEES CONCESSION

2.12   Tuition fee concession is being granted to First Generation Graduate students admitted to Engineering Colleges in the State under Government quota through Single Window Counselling. For the year 2013-2014, a sum of Rs. 528.81 lakh has been spent and the number of beneficiaries has been 2,73,675.

2.13 Tuition fee concession granted to the first graduate students selected for professional courses through Single Window Counselling in Tamil Nadu has been extended to the eligible Sri Lankan students living in the refugee camps of Tamil Nadu from the year 2011-12.

EDUCATIONAL FACILITIES EXTENDED TO SRI LANKAN TAMIL REFUGEES

2.14   The children of Sri Lankan Tamil refugees in Tamil Nadu have been permitted

to participate in the counselling for admission to Lateral Entry B.E./B.Tech. and Post Graduate courses viz., MBA / MCA/ M.E./M.Tech from the academic year 2011-2012.

2.15 To improve the proficiency of Polytechnic students in open source softwares like JAVA, PHP, Linux etc., "spoken tutorial" was introduced in 403 Polytechnics. Training was provided to faculty from all these Polytechnics to ensure that the students utilize this opportunity to enhance their skills.

3. COLLEGIATE   EDUCATION

3.1 The Directorate of Collegiate Education was carved out of the erstwhile Directorate of Public Instruction in the year 1965 with a view to exclusively administer the Collegiate Education Wing and to bring about improvements, keeping pace with modern trends.   Tamil Nadu enjoys the privilege of being one of the most developed States in the field of Higher Education ensuring access, equity and excellence in the arena of Arts and Science education. At present, 656 Arts and Science Colleges, 11 Physical Education Colleges, 4 Oriental Colleges, 2 Schools of Social Work, 672 Colleges of Education and 37 University Constituent Arts and Science Colleges totalling 1382 Colleges are functioning in Tamil Nadu under the Directorate of Collegiate Education   and   8,50,812 students are studying in these Colleges.

ESTABLISHMENT OF 12 NEW GOVERNMENT COLLEGES AND TWO UNIVERSITY CONSTITUENT COLLEGES

3.2 The Government have established 11 new Government Co-educational Arts and Science Colleges at Kangeyam, (Tirupur District), Komarapalayam, (Nammakkal District), Hosur, (Krishnagiri District), Peravurani, (Thanjavur District), Karambakkudi, (Pudukottai District), Sivakasi, (Virudhunagar District), Kadaladi, Thiruvadani and Mudhukulathur, (Ramanathapuram District), Kovilpatti, (Thuthukudi District), Uthiramerur, (Kanchipuram District), one Government Arts and Science College for women in Karimangalam (Dharmapuri District) and 2 University Constituent Arts and Science Colleges (for women) at Veppur, Perambalur District and at Thittakudi, Cuddalore District, (Co-educational) during the academic year 2013-14.

NEW COLLEGE TO BE ESTABLISHED DURING 2014-15

3.3 Considering the fact that Veppanthatai area in Perambalur District is a most backward area with least number of educational institutions, the Government have accorded administrative sanction for establishing a new Co-educational Government Arts and Science College at Veppanthattai in Perambalur District during the academic year 2014-15.

NEW COURSES IN GOVERNMENT COLLEGES

3.4 To enable the students to pursue their higher education by availing the benefit of free education, 398 new Courses in 51 Government Arts and Science Colleges were introduced during the academic year 2013-2014 and 3509 students are pursuing these Courses. The Government have also sanctioned 827 posts of Assistant Professors

spread over the years 2013-14, 2014-15 and 2015-16 to handle the above new Courses.

APPOINTMENT OF ASSISTANT PROFESSORS IN GOVERNMENT COLLEGES

3.5   The Government have proposed to fill up 1093 posts of Assistant Professors in Government Arts and Science Colleges and Colleges of Education by direct recruitment through Teachers Recruitment Board. Further in the academic year 2012-13, the Government have directed Teachers Recruitment Board to undertake recruitment to fill up another 530 posts of Assistant Professors in Government Arts and Science Colleges and Colleges of Education.

GUEST LECTURERS IN GOVERNMENT COLLEGES

3.6 (a) Shift system introduced in the Government Arts and Science Colleges by the Government is being continued every

year. During the academic year 2013-2014, the Government have sanctioned 1661 posts of Guest Lecturers in 59 Government Arts and Science Colleges under shift II system.

(b) The Government have sanctioned 1623 posts of Guest Lecturers during the academic year 2013-2014 to fill up the existing vacancies in the post of Assistant Professors till these vacancies are filled through Teachers Recruitment Board. The Government have also sanctioned 60 posts of Guest Lecturers in the newly established 12 Government Arts and Science Colleges.

FREE EDUCATION

3.7 Free Education is imparted to the students studying in Government Colleges upto Post Graduate level and in Government Aided Colleges upto Under Graduate level. During the academic year 2013-14, 1,65,264 students in Government Colleges and 2,59,474 students in Government Aided Colleges have benefitted.

FREE BUS PASS TO THE COLLEGE STUDENTS

3.8 Free Bus Passes are issued to the students studying in the Government Colleges and during the academic year 2013-14, 1,72,873 students have benefitted.

DISTRIBUTION OF FREE OF COST LAPTOPS

3.9 4,25,396 students of Government and Government Aided Arts and Science Colleges have been given free of cost laptops under this scheme.

DEVELOPMENT OF WOMEN

3.10 To help the women students appearing for All India Civil Services Examination, free coaching classes are conducted at Queen Mary's College, Chennai and Sri Meenakshi Government College for Women, Madurai. A sum of Rs.10.00 lakhs is earmarked for this scheme every year. In

the academic year 2013-2014, 60 students have benefited from these classes.

STUDYING DIPLOMA / CERTIFICATE COURSE ALONG WITH THE DEGREE (ADD ON COURSE)

3.11 The students studying in Government Arts and Science Colleges undergo Job-oriented Certificate / Diploma Courses in the nearby Polytechnic Colleges identified by the Government under UGC funding scheme. This is a boon to students who become employment ready, as they complete their UG course and 4,864 students have benefited during 2013-14.

TRANSFER COUNSELLING FOR THE NON–TEACHING STAFF

3.12 The Department of Collegiate Education has conducted transfer counselling to the Non-Teaching Staff (Group B & C) for the year 2013–14 on 19.08.2013 and

20.08.2013. A total Number of 35 staff have benefited.

JOB FAIR

3.13   A Placement Cell has been established in the Directorate of Collegiate Education to facilitate students to get jobs on finishing their course of study. Through this Cell, job fairs are conducted in various Colleges, viz. Queen Mary's College, Chennai–4, Dr.Ambedkar Government Arts College, Vyasarpadi, Chennai -39, Government Arts College, Tiruvannamalai, Rajeswari Vedachalam Government Arts College, Chengalpattu, Government Arts College, Karur, Periyar Arts College, Cudalore, Government Arts College, Coimbatore, Chikkanna Government Arts College, Tirupur and Rani Anna Government College for Women, Tirunelveli. Leading companies / organizations have offered employment opportunities to students

through the efforts taken by the placement cells in the Colleges. A total number of 1,842 students studying in 33 Government colleges and 10,621 students studying in 82 Government Aided Colleges, summing upto 12,463 students have benefited through these Job fairs.

STIPEND FOR TAMIL MEDIUM STUDENTS:

3.14   A scheme of awarding stipend of Rs.400/- per month for the upliftment of students studying in Tamil Medium is being implemented. In the academic year 2013-14, the Government have sanctioned a sum of Rs. 135.00 lakhs for this scheme benefitting 33,750 students.

SPECIAL COACHING TO SC/ST AND MBC STUDENTS

3.15   The students belonging to the SC/ST and MBC communities, studying in

Government Colleges and hailing from rural areas initially faced difficulties to cope with English, Mathematics and Science subjects. In order to help them to cope with these subjects, special coaching is given after class hours and also during weekends. During the academic year 2013-14, the Government have sanctioned a sum of Rs.2.00 lakhs for this scheme benefitting 7750 students.

STIPEND TO RESEARCH (Ph.D) SCHOLARS

3.16   Under this scheme, an annual stipend of   Rs.36,000/- per annum is granted   to Ph.D. Research Scholars in various subjects in Government   and Government Aided Colleges.   In the academic year   2013-14, 111 Research Scholars have benefitted from a budget provision of Rs.40.00 lakh.

INFRASTRUCTURE FACILITIES TO GOVERNMENT COLLEGES AND UNIVERSITY CONSTITUENT COLLEGES

3.17 The **Hon'ble Chief Minister** has announced that the existing infrastructure facilities in the 62 Government Arts and Science Colleges, 7 Government Colleges of Education and 24 University Constituent Arts and Science Colleges will be upgraded at a cost of Rs.100 crore.

3.18 The announcement of the sanction of Rs.100 crore has been received with acclaim by all concerned – students, teachers, parents, educationalists and general public. Rs.100 crore sanctioned for the provision of infrastructure development is looked up on as a quality input to improve the teaching – learning process.

3.19 Rs.44.50 crore has been earmarked for purchase of furniture which have been supplied to the above colleges by the Tamil Nadu Small Industries Corporation (TANSI). A sum of Rs.26.81 crore has been

sanctioned for the provision of water facilities and toilet facilities, improvement of kitchen and dining halls in the Hostels and for provision of electrical items to all the 69 Government Arts and Science Colleges and Colleges of Education and 6 University Constituent Arts and Science Colleges. The work is in progress. Action is being taken to provide other infrastructure facilities at a cost of Rs.28.69 crore.

NATIONAL SERVICE SCHEME (N.S.S)

3.20 National Service Scheme is being implemented successfully in higher educational institutions in Tamil Nadu since September, 1969. At present, there are 3,70,000 student volunteers in various educational institutions under this scheme.

3.21 Leadership Motivation, Yoga & Training, Career Guidance & Counselling, Soft Skills Development, Disaster Management, First-Aid Training, Environment

Enrichment Programmes, Road Safety & Safe Driving Skills, helping the School Dropouts to continue their education, Blood Donation, Blood Grouping and Maintaining Blood Donor's Directory are some of the activities conducted under the scheme which instil in students civic sense, enabling them to blossom as socially conscious human beings. A number of health camps including eradication of breast cancer, cardiac care, eye care, dental care and leprosy, mother and child care, AIDS awareness are conducted regularly.   Special Programmes are organized to help students understand the need for protecting the Ozone layer and the importance of an eco-friendly atmosphere. The volunteers plant saplings under the social forestry schemes, developing model forests and tree contour belt. Eradication of the use of plastic and polythene, formation of eco clubs are some

of the other programmes conducted under NSS Scheme.

3.22   Students adopt villages and during the Special Camping programme, students work with local youth and create permanent assets by providing public utility services, constructing toilets, water storages, community halls, compound walls, play grounds and forming road.   The NSS programmes motivate the students to participate in nation building while at the same time moulding their personality and character for their future good and well-being.

MILESTONES IN THE NSS ACTIVITIES DURING 2013-14

3.23   1. Donation of 1,06,500 units of blood.

2. Planting of 3,60,624 saplings.

3. 1,00,000 illiterates have been made literates through the sincere efforts taken by NSS volunteers.

4. Staging of street plays on the following topics:-

   Cancer, Dengue, AIDS, Consumer Protection, Environment, Health Care and Eradication of Liquor, Violence against Women, Organ Donation, Child Labour, National Literacy and Tree Planting.

SPORTS

3.24 Sports is an integral part of education in the Arts and Science Colleges in Tamil Nadu. The students have excelled in Sports and won prizes and medals at the national and international events. Students from Government / Aided/ Self Financing Colleges have excelled in Fencing, Kabaddi, Volleyball, Hurdles, Relay Race, Chess, Hockey, Weight lifting, Power lifting, Running, Swimming and Hand Ball events at All India Inter University, University, State, National and International levels.

CONSTRUCTION OF BUILDINGS UNDER PART-II SCHEME 2013-2014

3.25 The Government have sanctioned a sum of Rs.1.00 crore for the construction of Victoria Hostel for Men in the Government Arts College (Autonomous), Kumbakonam and also sanctioned a sum of Rs.70.00 lakh for construction of additional classrooms in the Government Arts College, Chidambaram.

CONSTRUCTION OF ADDITIONAL BUILDINGS IN GOVERNMENT ARTS COLLEGE AT PARAMAKUDI AND KARUR

3.26 The Government have accorded administrative sanction for the construction of additional classrooms, laboratories, library and office rooms in Government Arts College, Paramakudi at an estimated cost of Rs.4.68 crore during the year 2013-14. Similarly, Government have accorded administrative sanction for the construction of additional classrooms, laboratories and

toilet blocks in Government Arts College, Karur at an estimated cost of Rs.4.50 crore during the year 2013-14.

INSTALLATION OF SOLAR ENERGY GENERATION UNITS

3.27 In accordance with the Solar Energy Policy 2012 of the Government of Tamil Nadu, the following six Government Colleges have been identified to install Solar Energy Generation Units in the first phase:

1. Queen Mary's College, Chennai.
2. Government Arts College, Coimbatore.
3. Sri Meenakshi Government Arts College for Women, Madurai.
4. Muthurangam Government Arts College, Vellore.
5. Periyar E.V.R College, Trichy.
6. Rani Anna Government Arts College for Women, Tirunelveli.

Solar Energy Generation Units have been installed in Muthurangam Government Arts College, Vellore and Queen Mary's College,

Chennai. The Project is under process in respect of the remaining four Colleges.

WIND SOLAR HYBRID SYSTEM

3.28 The Government of Tamil Nadu have sanctioned Rs.42 lakh to the Tamilnadu Energy Development Agency for installation of 8 Wind Solar Hybrid Systems at wind potential areas having annual average wind speed of about 15kmph (4.17 m/s) at 20m height. The following 8 Government Colleges have been identified for the installation of Wind Solar Hybrid Systems:

1. Government Arts College, Chidambaram.
2. Periyar Arts College, Cudalore.
3. Government Arts College, Melur, Madurai.
4. Sri Meenakashi Government Arts College for Women, Madurai.
5. Government Arts College for Women, Ramanathapuram.
6. Sethupathy Government Arts College, Ramanathapuram.

7. Government Arts College for Women, Salem.

8. Government Arts College, Udumalaipet.

4. UNIVERSITIES

The following are the Universities functioning under the aegis of Higher Education Department:-

1. University of Madras
2. Madurai Kamaraj University
3. Bharathiar University
4. Bharathidasan University
5. Alagappa University
6. Mother Teresa Women's University
7. Manonmanium Sundaranar University
8. Periyar University
9. Thiruvalluvar University
10. Tamil Nadu Open University
11. Annamalai University
12. Tamil Nadu Teacher's Education University
13. Anna University

4.1 UNIVERSITY OF MADRAS

4.1.1   The University of Madras is one of the first three Universities established in the year 1857 in India and it has completed 157 years as a leading University and a forerunner in the field of higher education in India. It has six campuses viz. Chepauk, Marina, Guindy, Taramani, Chetpet and Maduravoyal all within the Chennai Metropolitan area. Started as an examining body, the University is today a pioneer in Research and Development activities and has 73 teaching and research Departments which are grouped under 18 Schools. It has 132 affiliated/approved Colleges and standalone institutions, including 2 Constituent Colleges and 48 affiliated research institutions as on March 2014. The Institute of Distance Education was established in 1981 and offers Under Graduate, Post-Graduate and Professional Courses besides Diploma and Certificate courses for skill development. The

Institute of Distance Education has established e-Network Pan African Project. Under this project M.Sc. (IT) and B.B.A. Courses are offered to African students.

4.1.2 The University provides student support services through the University Students' Advisory Bureau (USAB) and the University Centre for International Relations (UCIR) for Indian and foreign students and library facilities with MALIBNET and INFONET. The University also provides training and knowledge enhancement for teachers and administrative staff through the Academic Staff College. Research and its application to industry and society are promoted through the University Industry Community Interaction Centre (UICIC) and also through two programmes namely Technology Business Incubator programme (TBI) of the Department of Science and Technology (DST), Government of India and Techno-entrepreneur Promotion Programme

(TePP) of the Department of Scientific and Industrial Research (DSIR).

4.1.3   The University of Madras has been accredited by the NAAC with the celebrated "five star" accreditation status in September 2000 and reaccredited by the NAAC with "A" Grade in March 2007 and May 2014. It has the pride of being one of the first five Universities to be conferred with the status of University with Potential for Excellence (UPE) by the UGC in the year 2003 and also one of the first few Universities that have continued to the second phase of UPE from April 2011. The UGC has also been supporting the School of Life Sciences and School of Earth Sciences under the Centre with Potential of the Excellence in a Particular Area (CPEPA) programme.

IMPORTANT ACHIEVEMENTS

Improvements in Infrastructure

4.1.4   An Entrance Arch at the Chepauk Campus was constructed and it was inaugurated by the **Hon'ble Chief Minister** of Tamil Nadu on 17th August 2013. The arch is a blend of the ancient Tamil and Gothic architecture and was designed and sculpted by the students of Government College of Arts and Crafts, Mamallapuram.

Tree Planting Scheme

4.1.5 The University has initiated a tree planting scheme and 2.5 lakhs saplings were planted in 81 villages. As a mark of completion of the programme, the 2,50,000th sapling was planted by the **Hon'ble Chief Minister** of Tamil Nadu at the University Chepauk Campus on 17th August 2013.

Implementation of the Schemes initiated by the Department of Higher Education, Government of Tamil Nadu

4.1.6

i) 4 Smart classrooms have been established. These technology-enabled classrooms make the teaching / learning process interesting and highly informative.

ii) A Language Lab with software to train students in 4 foreign languages (English, French, German and Chinese) has been established and the lab is being used to teach soft-skill Courses. Also 1000 students from University Departments and 1500 students from Affiliated Colleges benefitted from this initiative.

iii) The University established an Entrepreneurship-cum-Skill Development Centre and an entrepreneurship training programme was organized for the teachers working in Colleges affiliated to the University of Madras. The programmes were organized in eight batches, from 2nd January 2013 to 22nd February 2013. Each batch

was conducted for duration of five days and 100 College teachers participated in the training programme.

iv) Eight renowned Professors from foreign Universities [USA, Singapore, Germany, Pretoria] were invited by the university to deliver lectures and also to help in revamping the courses and syllabus.

v) A Curriculum Development Cell has been established and the Cell organized meeting of experts in 15 disciplines viz., Biology & Bio-technology; Nano-Science and Technology; Earth and Atmospheric Sciences; Basic Medical Sciences; Mathematical Sciences and Social Sciences and Historical Studies etc.

vi) The University has taken steps to implement the following five schemes:-

(a) Establishment of Centre for Multimodal Material Production for the differently abled (b) Establishment of Centre for Technical Writing and Academic Writing (c) Establishment of University Business Collaboration Centre (d) Establishment of

Incubation and Technology Transfer Centre and (e) Establishment of Swami Vivekananda Centre for Higher Research and Education.

Promoting Entrepreneurship Development

4.1.7 The University has identified and supported seven incubates in 2013 under the Technology Business Incubator (TBI) programme of the DST, Government of India and supported 34 projects under the Technology-entrepreneur Promotion Programme (TePP) of the DSIR, Government of India during the last five years.

4.1.8 OTHER ACHIEVEMENTS 2013-14

1. The University has undergone the NAAC re-accreditation process and been accredited with 'A' grade in May 2014.

2. Wi-Fi connectivity has been established in the Guindy campus
3. Solar powered street lights were installed to the extent of 1 KV for the women's hostel in the Chepauk Campus.

4. Faculty recruitment process was initiated to fill up vacant posts in various Departments and 95 Assistant Professors have been appointed in 51 Departments.

5. Two Professors visited European Universities under MAHEVA Project (Man Health Environment Bio Diversity for Asia)

6. Under the UPE PHASE II Programme, projects on 'Bio-medical Research and New Materials Research are in progress.

7. The e-Governance Centre has created software modules for the Finance and Examination wings.

8. Twining programme: The Institute of Distance Education, University of Madras, in collaboration with Centre of Excellence in Digital Forensics, Perungudi, Chennai is conducting the following programmes (i) M.Sc. Information Security and (ii) M.B.A. Information Security Management.

4.1.9 Achievements in Sports

(i)   The Volley Ball Team (women) of the University won the All India Inter University Volley Ball Tournament in 2013-2014.

(ii)   Three of the students have been selected to play in the prestigious VIZZY TROPHY CRICKET CHAMPIONSHIP conducted by the Association of Indian Universities with the collaboration of Board of Control for Cricket in India.

4.1.10 ACTIVITES / SCHEMES PROPOSED TO BE UNDERTAKEN DURING THE YEAR 2014-15

1.   Plans are underway for installing solar powered street lights in Guindy campus and also solar power for all electrical appliances in the administrative buildings of the Chepauk campus of the University.

2.   An indoor sports stadium at Chetpet Campus is being planned to be constructed to conduct inter-collegiate and inter-zonal sports meets.

3. Under the UGC-UPE Phase II programme, the following seven schemes and activities have been planned:

(a) Centre for Studies in Comparative Religions (b) Centre for Rural Development and Strategic Studies (c) Centre for Studies on Terrorism, Internal Security and Victims of Crimes (d) Centre for Cognitive and Behavioural Research and (e) Psycho & Music Therapy Project, (f) A Laboratory for Traditional Medical Testing and Standardization will be set up, and (g) A Multi Lingual Dictionary Project.

4.2 MADURAI KAMARAJ UNIVERSITY

4.2.1 The Madurai Kamaraj University established in 1965 is a pioneer institution richly contributing to the developments in the region and nation through higher education.   Madurai Kamaraj University is functioning with 77 Department under 20 Schools. The UGC has recognized the University as the "University with Potential for Excellence" (UPE). This University is one among the fifteen Universities in the country so far been recognized by the UGC under this category. The Madurai Kamaraj University governs 3 Government Colleges, 30 Government Aided Colleges, 45 Self – Financing Colleges, 6 Constituent Colleges, 1 University College and 9 institutions conducting Certificate and Diploma Courses with more than one lakh thirty thousand students on roll. Besides, Madurai Kamaraj University also has a Distance Education Directorate with an enrolment of 1,22,000

students. This University offers 41 Post Graduate, 35 M.Phil. and 17 Diploma /P.G. Diploma / Certificate courses duly approved by the statutory bodies.

4.2.2 **Achievements**

(i) Curriculum Development Cell: A World Class Curriculum Development Cell has been established with financial assistance from the State Government. Continuous efforts are being made to accommodate all the stakeholders in the process of curriculum revision, realizing the increasing and challenging needs of the students and the developments taking place across the world in the field of higher education.

(ii) A 25,000 sq.ft. Central Instrumentation Centre costing Rs.4 crore with the state-of the art infrastructure to house the research instruments has been established with the UGC-UPE programme

support and inaugurated by the **Hon'ble Chief Minister**.

(iii) The Centre for Tourism and Hotel Management conducts a five year integrated M.B.A., Programme.

(iv) A five year integrated M.Tech Course on Film & Electronic Media Studies is offered by the Centre for Film and Electronic Media Studies with high end professional audio–visual equipment and infrastructure to match the standards in the industry.

(v) Wi-fi Internet connectivity is being provided in the Madurai Kamaraj University campus to all the students in the Hostels.

(vi) The Radio Frequency Identification (RFID) Technology based book maintaining system has been implemented in the T.P.Meenakshi Sundaram Library. Learning facilities for

differently-abled students have also been established.

(vii) A Virtual Learning Centre has been established in the School of Information Technology of Madurai Kamaraj University to have a single point access to national & international journals, digital teaching resources and career assistance service to students.

(viii) A Web Centre has also been established to link all the portals of various Departments/Schools to a common website and to maintain a centralized server.

(ix) More than 160 research projects with an outlay of Rs.34 crores have been undertaken by the faculty of Madurai Kamaraj University.

(x) A total of 28 Summer and Winter Schools / Workshops in various disciplines of Life Sciences have been conducted under the UGC-sponsored Networking

Resource Centre in Biological Sciences (NRCBS) programme, and 533 young research students and teachers from various parts of our country have benefited.

(xi) Women Studies Centre has been established.

(xii) Under the GREEN CAMPUS INITIATIVE, the Madurai Kamaraj University adheres to "Green Practices".The University has also entered into an MoU with Auroville Foundation for the 'go-Green' programme. The major initiatives include generation of solar power to meet the requirements, Energy audit, Waste Management, Renewable Energy Installations and Solar Street Lights. A 100KW Solar ON GRIND Power Plant was established in the University Administrative Building at a cost of Rs. 1 crore. Green landscapes have been established in the campus in many places.

(xiii) Madurai Kamaraj University has established the following Centres: i) Swami Vivekananda Advanced Research & Education Centre ii) Incubation & Technology Transfer Centre iii) University Business Collaboration Centre, iv) Entrepreneurship-cum-Skill Development Centre and v) Multi Model Material Production Centre for the differently abled.

(xiv) The Post Graduate Extension Centre in Virudhunagar has started functioning and efforts have been made to offer P.G. education for Virudhunagar and nearby Districts, focusing on the weaker sections of the community.

(xv) The University has established three smart classrooms with video conferencing facilities.

(xvi) Foreign Language Lab has been established in the University with software and aids.

(xvii) The Educational Multi Media Research Centre (EMMRC) plays a vital role in developing e-content and reaching the EDUSAT Programmes to the students.

(xviii) The Schools of Biology, Biotechnology and Chemistry have invited Professors from Foreign Universities, which has significantly contributed to making the teaching-learning process effective with inputs from across the world. Dr.Soni Sarai Pullamsetti, from Max Planck Institute for Heart and Lung Research, Germany has visited the School of Biological Sciences & Biotechnology. Prof.V.Sabapathy, from University of Malaysia, Kuala Lumpur, Malaysia was invited to the School of Indian Languages. Prof.Robert Zalesny, Institute of Physical and Theoretical Chemistry, Wroclaw University of Technology, Poland was invited to the School of Chemistry.

(xix) Student amenities which include amenity centre, hostel infrastructure, modernization of hostel kitchens and a pharmacy have been established and upgraded.

4.2.3. **ACTIVITIES PROPOSED FOR THE YEAR 2014-15**

- **to establish nursery to promote the plantation of eco-friendly plants.**

- **e-governance in Madurai Kamaraj University**

  The Madurai Kamaraj University proposes to install a centralized server and data backup system for e-governance in the University.

4.3. BHARATHIAR UNIVERSITY

4.3.1 Established in the year 1981, the Bharathiar University has been doing yeoman service in the districts of Coimbatore, Tirupur, Erode and The Nilgiris. The University, reaccredited by the National Assessment and Accreditation Council with 'A' Grade, has 34 teaching and research Departments grouped under 13 Schools. The University has 108 affiliated Colleges, which include 7 Government, 3 Constituent, 16 Government Aided and 82 Self Financing Colleges. In addition, the University has 1 PG Extension Centre at Erode. A total of 2,57,292 students are currently studying in the University Departments, affiliated Colleges and the School of Distance Education.

4.3.2 **PROJECTS**

The Defence Research & Development Organization (DRDO) has sanctioned Rs.27.37 crore to the BU-DRDO Centre for Research and Development for its II phase. 16 projects worth Rs.7.53 crore are currently ongoing along with 81 Major Research Projects worth Rs.11.22 crore, received by the University faculty members of various disciplines from several agencies like UGC, ICSSR, BRNS, DRDO, DRL, DST, BRFST and CSIR. Research Scholars of the Bharathiar University have received coveted fellowships like INSPIRE, UGC-BSR, CSIR-JRF & SRF, UGC-NET JRF, etc.

4.3.3 **SCHEMES**

- The National Council for Teacher Education (NCTE) has recognized Bharathiar University to offer Master of Education (M.Ed.) program through regular and distance modes.

- Professors from abroad were invited by the University under 'Visiting Faculty Scheme'. Prof. Md.J.Hannan Mia, Professor of Commerce, University of Guelp, Canada and Prof. Dr.Balswaroop Bhatt, Professor of Applied Mathematics, University of West Indies, Trinidad, Dr.V.Sarasan, Head Conservation Biotechnology Royal Botanic Garden, Kew UK have visited the University, delivered lectures and interacted with faculty members of the respective subjects for further Collaborative Research Programmes.

- The Curriculum Development Cell (CDC) has organized meetings with Administrators, Educationists, Industrialists, Parents and Alumni to get their opinion to revamp the syllabus. Based on the inputs from them, the CDC has prepared the syllabi for 40 UG, 40 PG and 65 allied subjects.

- The Swami Vivekananda Centre for Higher Research and Education has been established. The students of Bharathiar University from various disciplines are attending some of the special programs at this Centre.

- The University has got a facelift through the Green campus initiative program at a cost of Rs.1.76 crores. Buildings worth Rs.6.72 crores are under construction for Physical Education and additional classrooms for the Bharathiar School of Management and Entrepreneur Development (BSMED) during 2013-14.

- Entrepreneurship and Skill Development Centre has organized 20 training programs for students of the University Departments and affiliated Colleges.

- An Online document verification system has been implemented to verify the

genuineness of the degree certificates issued by the University.

- Bharathiar University has signed an MoU with Anglia Ruskin University, United Kingdom for exchange of research programmes.

- Foreign Language Lab has been installed with software in French, German, Spanish and Chinese languages, benefitting the research scholars and students to a great extent.

4.3.4 **ACTIVITIES/ SCHEMES PROPOSED FOR THE ACADEMIC YEAR 2014-15**

- WASTE WATER MANAGEMENT: Proposed to establish a recycling unit for waste water management for recycling the used/waste water from the hostels for the purpose of maintaining lawns and trees in the campus.

- SWIMMING POOL: Proposed to create a world class swimming pool to organize swimming competitions and cater to the needs of students and faculty members.
- SUBWAY: Proposed to construct a subway between the main entrance of the University and the girls hostels in the interest of the safety of students.
- CHECK DAMS: Proposed to construct check dams in the University campus to improve the ground water level and to avoid   soil erosion.
- NEW COURSES: Proposed to start new courses on Human Genetics & Molecular Biology and Cyber Security during the ensuing academic year 2014-15.

4.4. BHARATHIDASAN UNIVERSITY

4.4.1 Bharathidasan University, named after the great revolutionary Tamil Poet Bharathidasan, was established in 1982. The University, through its 4 Faculties, 17 Schools, 58 Departments and Specialized Centres, offers 112 academic programmes at different levels. In addition, Under Graduate, Post Graduate, and Research programmes are conducted in 3 Model Colleges, 6 Constituent Colleges, 1 Constituent Model College and 128 affiliated Colleges which include 19 Government Colleges, 20 Government Aided Colleges, 74 Self-financing Colleges and 15 approved institutions. A total of 2,12,402 students are on roll in the University Departments and affiliated colleges. In addition to regular mode of education, Bharathidasan University offers 116 Programmes including UG, PG, Diploma and Professional programmes in

select disciplines, adhering to the guidelines of UGC. During the last academic year, 9 new programmes were added and 35 new Study Centres were created.

4.4.2 To bring the differently-abled persons into the mainstream of the society a Centre for Differently-Abled Persons**,** with one permanent faculty member in the cadre of Assistant Professor, has been established. PG Diploma, Diploma and Certificate Programmes on different topics are offered at the Centre from the academic year 2012-13 onwards. Currently 31 students have enrolled for different programmes. For the benefit of the visually challenged students special software has been installed in the computers.

4.4.3 **Achievements**

- Smart Classrooms have been established with Video-Conferencing facility and the University library has been modernized with ICT-based upgradation The University Departments, Constituent/Model, and

affiliated Colleges, have greatly benefitted by the digital library.

- Wi-Fi connectivity has been provided to all the new buildings including hostels, classrooms and Departments. The Centre for Knowledge Repository's multimedia portal has been strengthened with several video lectures on Technology Enhanced Learning.

- About 300 papers have been published in High Impact Factor Journals by different faculty members during 2013-14 and around 400 research projects sponsored by UGC, CSIR, DST, DBT, DRDO, ICSSR, ICMR, etc. have been carried out in various Departments. As many as 125 project proposals have been forwarded to different agencies for funding. Above all, 2 patents have been registered by our faculty members.

- In the previous academic year, 9 Departments have been awarded with Special Assistance under the Special Assistance Programme (SAP) of the UGC and 4 Departments have been awarded grant under the Department of Science and Technology – Fund for Improvement of Science and

Technology Infrastructure Programme (DST–FIST). Three already existing SAP Departments have been promoted to the next level. The University Grants Commission has awarded 63 research Fellowships under its scheme for Meritorious Students in SAP Departments so far.

- World-class Curriculum Development Cells in 10 different disciplines have been created and globally competent curricula at UG and PG levels are being developed.

- The Constituent Model College at Veppur, Perambalur District was inaugurated with student strength of 177 in the first year, during 2013-14.

- Four Post Graduate Studies, Two Post Graduate Diplomas, Two Diploma programmes, Two Certificate programmes were introduced during the academic year 2013-14.

- New MoUs were signed with (i) Aarthi Scans Private Limited, Chennai, and (ii) Southern Academy of Maritime Studies Pvt. Ltd., Chennai.

4.4.4 The Curriculum Development Cell organized a two-day Workshop on "Quality Research Report Writing" exclusively for the research supervisors of Bharathidasan University on Feb. 27 and 28, 2014. A total of 469 faculty members from various disciplines both from the University Departments and the Affiliated Colleges participated and got benefited.

4.4.5 The Entrepreneurship-cum-Skill Development Centre organized three Skill Development Programmes and 20 Motivation Campaigns from 01.02.2014 to 31.03.2014, through which 2730 participants got benefited.

4.4.6 The final year students of M.Tech developed a firm named Fort Info Corp in Incubation and Technology Transfer Centre (ITTC) and have successfully completed 5 projects so far. Apart from this, the students have also started Web

Designing and Web Hosting Centres in ITTC. A total of 246 students have benefited.

4.4.7 The Centre for Technical Writing and Academic Writing orgainzed a five-day Workshop for the Research Scholars of various disciplines from all the Departments of Bharathidasan University from 27.01.2014 to 31.01.2014 through which 69 full-time research scholars got benefited.

4.4.8 Smart Classrooms with Video Conferencing Facilities have been established in the Department of Commerce and Financial Studies, School of Language Studies and the UGC-Academic Staff College. As many as 56 programmes were conducted through which 3083 students and researchers got benefited.

4.4.9 Under the Scheme of Inviting Foreign Professors, as many as 8 Renowned Professors from USA, Japan, Australia, Singapore, Malaysia, and Austria visited and delivered special lectures and participated in

various activities in the University Departments. A total of 1585 students and researchers got benefited from these deliberations.

4.4.10   The ICT Training Centre for the Differently Abled under the aegis of the Higher Education department organized a training programme on Basic Computer operations for the visually impaired. The programme benefitted 16 visually impaired students with the help of talking tutors and screen reading software.

4.4.11 The Centre for Vivekananda Studies, has been established to take the teachings of Swami Vivekananda to the youth. Many lectures were arranged on the thoughts of Swami Vivekananda for the benefit of students.

4.4.12   Through the Post Gradute Extension Centre of Bharathidasan University, Perambalur, 199 students hailing from poor socio-economic status across rural

areas in Perambalur district have been able to pursue Post Graduate studies in Biotechnology, Mathematics, Microbiology and Computer Science. Of these 199 students, 76 belonging to SC/ST community and 16 students from BC / MBC community have received Scholarship to the tune of Rs.69,647/- and Rs.41,201/- respectively. All the students avail the Lab facilities at the Centre to facilitate their learning. The students of Microbiology and Biotechnology have undertaken industrial visits to National Research Centre for Banana, Tiruchirappalli, besides their exposure to lectures delivered by senior professors and scientists.

4.4.13 The Post Graduate Centre with High Tech Laboratory created in the Centre for Remote Sensing, established a petrological Lab with the seed money provided from the University through which 110 students got benefited.

ACTIVITIES/ SCHEMES PROPOSED FOR THE ACADEMIC YEAR 2014-15

4.4.14   For the 2014-15 academic year, Postgraduate Studies in (i) M.A. - Social Policy, (ii) M.A. - Medical Sociology, (iii) M.Sc. – Botany and (iv) M.Sc. – Geography; and PG Diploma in Guidance and Counselling have been proposed.

4.5. ALAGAPPA UNIVERSITY

4.5.1 Alagappa University promotes excellence in education with a Vision and Mission in keeping with the advancements in the field of higher education. The University has 10 Schools of Learning, comprising 23 Departments, 9 Centres and 2 Constituent University Colleges of Education and Physical Education. Besides, it has 31 Affiliated Colleges, 5 Evening Colleges and one new Constituent Arts and Science College spread over in the two Districts of Ramanathapuram and Sivaganga. All programmes are under Choice Based Credit System (CBCS) with Continuous Internal Assessment (CIA) to ensure better education.

DISTANCE EDUCATION AND COLLABORATIVE PROGRAMS

4.5.2 The Directorate of Distance Education is taking educational opportunities to the door steps of 83,000

people, young and old, in the nook and corner of the nation. The University has a vast network of 217 Learning Centres. Need based skill oriented programmes are offered at Certificate, Diploma, UG, PG Diploma and PG levels in Catering and Hotel Management, Fine Arts, Textile Designing, Paramedical Sciences, Nautical and Aeronautical Sciences, Biotechnology, etc., through Collaborating Institutions of good repute.

4.5.3 **ACHIEVEMENTS**

- Alagappa University is ranked 3rd among top 50 Universities in India for the International Collaborative publications under scopus database (The largest abstract and citation database of peer reviewed literature). In appreciation, the Department of Science and Technology (DST) has allotted Rs.6 crores for the research programmes under Promotion of

University Research and Scientific Excellence (PURSE) scheme.

- Alagappa University has established AURF–Alagappa University Research Fund, with a corpus amount of Rs.5 crores to support Overseas Collaborative Research and major and minor research projects, spreading the project culture.

- About 300 events of various shades (seminars / conferences / celebrations) were organized bringing experts from USA, UK, Sweden, South Korea, China, Australia, Canada, France, Muscat, Malaysia, Singapore and Greece and academicians from almost every part of India.

4.5.4 **ACTIVITIES/SCHEMES UNDER TAKEN DURING THE YEAR 2013-2014**

- The University has created Centres, such as University Business Collaboration Centre, Centre for Technical & Academic Writing, Centre

for Multi-Modal Material Production for Differently-abled, Department of Biotechnology as the Centre with High Tech. Laboratories and Swami Vivekananda Centre for Higher Research and Education. The University has received Rs.5.36 crores as the First and Second instalment grant from the University Grants Commission under XII Plan Development Assistance Schemes. The Departments of Physics, Industrial Chemistry and Physical Education have been awarded the University Grants Commission – Special Assistance Programme – Departmental Research Support – Level II (UGC – SAP – DRS-II) status. The UGC has awarded five number of University Grants Commission – Basic Science Research (UGC-BSR) Fellowships to the Departments of Physics, Industrial

Chemistry and Biotechnology for a period of five years. MBA (Logistics Management) and PG Diploma in Pharmacogenomics have been introduced under UGC Innovative Program with the financial assistance from UGC, New Delhi.

- A Skill Development Centre has been established to provide skill training in Garment Manufacturing, Tailoring, Fashion Designing, Home Appliances and Functional Computer Networking to the students, unemployed youth and senior citizens.

- Thirty professors / dignitaries from University of Messina, Italy, Shizuoka University, Japan, University of Bah, Swanasea University, and Wales, University of Wolverhampton, United Kingdom, University of Malaysia, Kuala Lampur, Central European University, Hungary, University of Tennessee,

Nashville**,** and Mont Clair State University, New Jersey, US, and James Cook University, Australia have visited the University and contributed their academic expertise for curriculum revision in several fields of study.

4.5.5 **ACTIVITIES/ SCHEMES PROPOSED FOR THE ACADEMIC YEAR 2014-15**

- Wi-Fi facilities have been planned for the university.
- Proposed to enhance International Collaborative Research through the Centre for International Relations to increase the number of Faculty and Student exchange programmes.
- Efforts are being made to tap the 1-GB "National Knowledge Network" connectivity to its fullest capacity.
- Proposals are underway for obtaining funds under UGC's "Centre of Excellence in Particular Area" in the

Faculty of Science for the two areas viz., Advance Materials and Marine Microbial Bio-Technology.

- Proposed to establish University Scientific Instrumentation Centre (USIC) and a Modern Animal House Facility under the UGC's 'Innovation University' Scheme.

4.6. MOTHER TERESA WOMEN'S UNIVERSITY

4.6.1 Mother Teresa Women's University was established at Kodaikanal in 1984. The University caters to the entire educational needs of women population from across the State, particularly the rural and tribal women belonging to the under privileged, downtrodden and oppressed sections of society. At present Mother Teresa Women's University has 18 Departments and 2 Research and Extension Centres at Madurai and Chennai. There are 11 affiliated Colleges which include 2 Government, 2 aided, 2 constituent and 5 self financing Colleges. There are 8 Community Colleges that meet the needs of rural and tribal women students. A total number of 14,910 students have enrolled for various Courses at the affiliated Colleges and University.

4.6.2 **Important Achievements:**

- Total Automation Process of the University was undertaken in sections such as Finance, Establishment, Admission, Examinations, Store, Library and Directorate of Distance Education.

- The University has established "Technology Park for Women" and offers training programmes for income generation.

- The University has established Research collaborations with Foreign Universities in Malaysia and with Loughborough University, United Kingdom for faculty and student exchange programmes and organizing special lectures by experts through Video conferencing.

- The University has launched a Green Campus program which includes tree plantation around the campus and

setting up of a botanical garden with indigenous herbal and medicinal plants.

• The University has setup a coaching centre to train students for group II, NET/SLET and other competitive exams.

• A series of National seminars, training programmes and workshops on Girl Child Abuse were organized. A documentary film competition on this subject was conducted for college students and cash prizes were awarded.

• A Centre for Rural Development focusing on Environmental conservation for rural and tribal people of Kodaikanal has been established. Efforts have been taken to identify water bodies at Kodaikanal for water conservation. Programmes like solid waste management and use of bio-

fertilizers are conducted. Training Programmes on floriculture and extraction of essential oils are offered for promotion of micro enterprises among students and women.

- The **Hon'ble Chief Minister** of Tamil Nadu has announced the establishment of "Tamil Nadu Commonwealth Mother Teresa Women's International Centre" at Kodaikanal with the objective of addressing globally relevant issues related to empowerment of Women. Certificate, Diploma and Advanced Diploma Courses in Yoga, Folklore, Dance, Music, Indian Culture and Ayurvedic Science have been introduced for the benefit of women.

- Memorandum of Understanding has been signed between ACME Progen Biotech (India) Pvt. Ltd., Salem, NIFT-TEA, Tirupur, INFLIBNET for Sodhganga project and Information

Communication Technology (ICTACT), Academy of Tamil Nadu, Government of Tamil Nadu for enhancing Research, skill development and employability of students.

- The Centre for Intellectual Property Rights initiated P.G. Diploma Courses on the subject of Intellectual Property Rights (IPR). Awareness and training programmes on registration of patents and its importance, were organized for students.

- The University also offers Innovative Diploma Courses in Professional Ethics and Gandhian Studies.

- The University has started Certificate Courses on Saiva Ilakkiam / Vainava Ilakkiam / Christuva Ilakkiam / Islamiya Ilakkiam as add on Courses for the regular students of University.

- The Entrepreneurship–cum-skill Development Centre (EDC) offers

Certificate Courses in 11 areas, besides organizing Faculty Development Programmes (FDP) and seminars on Entrepreneurship.

- The Curriculum Development Cell (CDC) has revised and redesigned the existing curricula to meet the demands of the job-market and to enrich and add to the academic potential of the curricula. Fifty two programmes were conducted benefiting 1000 students. Web Portal has been created with Wi-Fi Internet connectivity.

- Smart classrooms with video conferencing facilities helped the University in imparting knowledge through interactive modules. Special lectures for students in remote places by experts were delivered through the video conferencing facility.

- The Foreign Language Lab offers Certificate and Diploma Courses in

French and German to students from all disciplines as well as add-on and credit courses. Nearly 1000 students have been awarded course completion certificates.

- Workshops are being organised for staff members and students to prepare low cost teaching aids for special education. In addition to this, EDUSAT programmes are being telecast and staff members have prepared e-content for teachers. ICT modules are specifically prepared for Differently Abled Children with special reference to the Intellectually Challenged.

- Internet facilities have been provided in the Educational ICT Laboratory for the staff, scholars and students for updating their knowledge to enhance the quality of the teaching-learning process. Interactive Board is used for effective Curriculum transaction and

SOL Server is in use for storage and retrieval of database in teaching & research activities

- Training programmes were conducted on 1.Web- designing using HTML for 300 participants, 2.Dot Net programming for 50 participants and 3.Hardware/Software training for 100 participants and for MCA students and students of all disciplines.

- The Centre for Technical Writing and Academic Writing organized 12 workshops and training programmes. A major workshop was conducted for all Academic Staff and Administrative Staff, and a series of workshops on Business English, Functional English and methods of writing research papers for PG & UG students, were also conducted. Nearly 2000 students have immensely benefited from the above programme.

- Under the Government of Tamil Nadu Scheme, Professors from Foreign Universities viz., Dr.Yogesh, K.Dwivedi, Professor of Information System of E-Business from Wansea University, UK. Dr.V.Shivendra Shai, Western Kentucky University, USA, Dr.Viswanathan, Prof. of Mathematics, University of Malaysia and Prof.Mustafir Rahman, Former Vice Chancellor and Professor of English, Peoples University, Bangaladesh visited the University and 54 faculty, 55 Research Scholar and 407 students and 1918 students from affiliated colleges got the opportunity to interact, discuss and share the latest information in their areas of Specialization.
- The Swami Vivekananda Centre conducted a two-day workshop on topics such as Health Care Management, Rural Development and

Women Education – in collaboration with Swami Vivekananda Youth movement (SVYM), Mysore. Based on the above, P.G and U.G students' team were trained by experts from Swami Vivekananda Kendra, Kanniyakumari. With the help of the trained students, five rural villages were identified and awareness programmes were conducted on "Women Education and Health Care Management".

4.6.3 **Proposals for the year 2014-15.**

- The University proposes to start a registered Professional body in Education that would be committed to public welfare, ethics through its initiatives in advocacy, education, research and development standards.

- Initiatives are underway to start M.Ed., Special Education (MR) to

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prepare Special Teacher Educators to meet the needs in the areas of Intellectual Disability.

- Centre for Applied Biotechnology Research (CABR) will be established with the support of FIST programme.

- The University proposes to establish a Centre for Eco Textiles that will offer skills in value addition of natural fibrous materials for creation of high quality Eco-friendly textiles/craft products and also on textile recycling.

4.7. MANONMANIAM SUNDARANAR UNIVERSITY

4.7.1 The Manonmaniam Sundaranar University, named after Prof. P.Sundaram Pillai (1855-1897), a distinguished Professor of Philosophy and a renowned Tamil Writer, who composed the verse drama, **'Manonmaniam',** was established in the year 1990. The University is located at Abishekaptti, Tirunelveli with two satellite campuses at Alwarkurichi and Rajakkamangalam . Its Jurisdiction spreads over three Districts, viz., Tirunelveli, Thoothukudi and Kanyakumari. It also extends educational services through Distance Education mode and Community College System. The University has 25 academic Departments and a network of 64 affiliated Colleges which include 3 Government Colleges and 32 Aided and Autonomous Colleges and 29 Self-Financing Colleges. Apart from these affiliated

Colleges, there are 4 Manonmaniam Sundaranar University Constituent Colleges and 6 Manonmaniam Sundaranar University colleges. In addition to these arts and science colleges, there are 19 Community Colleges in the three Districts coming under the jurisdiction of the University.

Student strength in various University Departments in Post-graduate, M.Phil programmes and in all the 64 affiliated colleges during the year is 80,791. The Manonmaniam Sundaranar University Colleges were started in the socio-economically backward regions so as to educate and empower the poor and women students at an affordable cost. At present, this frontline educational venture has been expanded into 6 Manonmaniam Sundaranar University Colleges at Puliangudi, Sankarankovil, Govindaperi, Nagampatti, Thisayanvillai and Panagudi. Apart from these 6 Colleges, there are four M.S.

University Constituent Colleges at Sathankulam, Nagalapuram, Kanyakumari and Kadayanallur. A total number of 5424 students are studying in the above Colleges in the Under Graduate and Post Graduate Courses.

4.7.2 COMMUNITY COLLEGES

Under the Directorate of Community Colleges, 19 Community Colleges have been approved and through these Colleges 18 job-oriented, skill-based one year Diploma Courses are offered in order to promote the employability of the rural students who have completed 10th standard. At present, 637 students are studying in the above Colleges.

4.7.3 ACHIEVEMENTS

1. The Upscaling of PG Department of Mathematics during 2013-14 provided excellent opportunity for students to

get good exposure in intensive research in Mathematics.

2. A Post Graduate Centre has been started at Nagercoil to offer two PG Courses which has been a boon to students from weaker sections seeking to continue their studies after obtaining UG degree.

3. Four Smart Classrooms with Video Conferencing facility have been established in all the three Campuses of the University and the same are used for academic and Research related interactions, within the country and with universities abroad. This facility has improved the quality of research, and 1256 students have benefitted by this programme.

4. The University has established a Foreign Language Laboratory in the main campus, with necessary infrastructure, for training the students

in English, French, Italian and German languages. At present, 225 students have benefited and about 1225 students will benefit in one semester. The students in the University will learn a new foreign language every year.

5. Eight five day workshops, on Entrepreneurship skills, for the students of the University and the affiliated Colleges, have been conducted in eight different locations with 30 teachers per programme. In each location, the teachers/students were trained by professionals in the field of entrepreneurial training and capacity building to guide students who desire to become entrepreneurs. Resource persons from various Government Nodal Agencies – MSME, DIC, TIIC, TAHDCO, NABARD, KVIC etc; local Entrepreneurial

Associations; Academicians; Consultants; and Successful Entrepreneurs were invited to train the teachers of the affiliated colleges, who in turn took the message to the students. 3,000 students benefited from this endeavour.

6. The Manonmaniam Sundaranar University has implemented the scheme, of inviting renowned professors from Foreign Universities, for academic programmes in University Departments, to train young teachers, in the preparation of research projects. 10 University Departments invited professors of repute from various countries. In this regard, Professor V.Sabapathy Venu Gopal (Malaysia), Professor Brian Crawford (USA), Professor Andreas (UK), Professor Uri Yanai (Israel), Prof. Rene.Y. Paquibut (Oman), Professor Pit. Pichappan

(Saudi Arabia) and Professor Gerald Joseph Bakus (South Carolina) have interacted academically with the Faculty and Research Scholars of departments in the university. This has widely helped 800 teachers and the researchers to learn contemporary techniques and practices in research, education, and training.

7. The Curriculum Development Cell, has been constituted with a fund of Rs.1 crore and a Director has been appointed to head the Cell.

8. The Curriculum Development Cell interacts with subject experts in India and abroad and involves them in designing and developing curriculum for enhancing the quality of the teaching learning process.

4.7.4 **Proposals for 2014–15**

i) To offer online classes through Video Conferencing with inputs from teachers working in Malayasia, USA & UK.

ii) To expand Entrepreneurship training to all University Departments and offer new courses on computer skills and fashion designing.

iii) To initiate steps to institute three new Departments viz., Department of Plant Sciences, Animal Sciences and Renewable Energy Science in order to give opportunity for students to have greater exposure in Life Sciences, which is a vital area of Higher Education.

4.8.   Periyar University

4.8.1 Named after the great social Reformist 'Periyar' E.V.Ramasamy, the Periyar University was established at Salem in 1997. The jurisdiction extends over the four Districts of Salem, Namakkal, Dharmapuri and Krishnagiri. More than 1.5 lakh students have enrolled for various Under-Graduate and Post-Graduate Courses offered by the University through 85 affiliated Colleges which include 13 Govt. Colleges, 4 Aided Colleges, 5 Constituent Colleges and 63 Self-Financing Colleges. The University offers skill based orientation programmes through 11 Community Colleges. The 22 University Departments offer Post-Graduate Courses under Choice Based Credit System besides offering Diploma and Certificate Courses.

Centres of Excellence

4.8.2 The Centre for Nano Science and Technology, Centre for Bio Diversity and Forest Studies, Centre for New and Renewable Energy Studies, Swami Vivekananda Centre for Higher Research and Education, Entrepreneurship Development Centre, Centre for Geo Informatics and Planetary Studies and Centre for Instrumentation & Maintenance Facility, actively carry out research and training programmes.

Post Graduate Centres

4.8.3 A Post Graduate Centre at Dharmapuri functions from 2012-13 offering Post Graduate Courses in Arts and Science disciplines.

Achievements

4.8.4 The Faculty members of the University Departments have published nearly 600 papers in reputed national and international journals. Sponsored research

projects to the tune of Rs 5.0 crores funded by various funding agencies of Central and State Governmental agencies are being implemented by various University Departments. Sophisticated laboratories have been established with funds from these projects. The Departments have signed MoUs with National and International laboratories and agencies to carry out hi–tech research. The research scholars working in the sponsored projects visit national and international labs through the fellowship programmes. UGC sponsored programme is being implemented by the Department of Computer Science. DST has released the second installment grant under FIST programme for procuring analytical instruments for teaching and research.

4.8.5 Twenty six academic programmes were conducted by the Science Departments and eighteen by Arts and Humanities Departments during this

academic year. The faculty members of the Departments of Mathematics, Physics, Chemistry, Bio Chemistry, Food Science and Management Studies had attended conferences abroad and visited foreign institutions.

Students Amenities

4.8.6 The Students' amenity Centre functions excellently. There are 100 computer terminals with high speed internet connectivity and reprographic facility has also been installed. The Health Centre which offers Yoga classes has also been well received by the students.

IAS/IPS Coaching Centres

4.8.7 University Grants Commission, New Delhi has allotted funds under merged scheme for the professional development of students of this University. In order to implement the scheme effectively, the University administration has instituted IAS/IPS Coaching Centre, NET/SET Coaching

Centre, Equal Opportunity Cell, Publication Division, Remedial Coaching Centre, etc.

Library

4.8.8 The University library has 70,828 volumes of text and reference books and subscribes to 203 national and international and 118 on-line journals The Library effectively functions with Internet and reprography facilities.

Physical Education

4.8.9 The Department of Physical Education of Periyar University has organized about 30 tournaments / competitions for the University and College students. Twenty one teams have participated in the South Zone/All India tournaments. The Periyar University Men and Women Hand Ball teams have won second and fourth places respectively in the South Zone Hand Ball tournaments. In the All India Taekwondo Men competition, the Periyar University team has won the Bronze medal.

Centre for Women Studies

4.8.10 The Centre has been established with the aim of promoting and strengthening women's studies through teaching, research and extension activities to empower women students.

Placement Cell

4.8.11 Many skill development and training programmes were conducted by the Training and Placement Cell in the University and in the affiliated Colleges. Placement drives benefitted more than 2000 students.

National Service Scheme

4.8.12 158 units of NSS, with 16,000 student volunteers, rendered services through various programmes and have participated in several national integration camps, adventure and summer camps. Blood Donation Camps, Free Medical Camps are also being frequently organized by the NSS units.

Youth Red Cross

4.8.13 The Youth Red Cross of Periyar University had organized National Voluntary Blood Donors' Day celebration, HIV/AIDS awareness programme, field study camps and orientation programme for YRC officers.

Inviting Renowned Professors

4.8.14 Dr.Dominic Slizak of Warsaw University, Poland visited the Department of Computer Science; Dr.Muhamad Shah Alam of University of Raja Shahi, Bangladesh, met the students of Management Studies and Dr.Mahadev of International University, Miami, Florida discussed with students of Commerce and Economics Departments on recent trends in research and development in their respective fields.

ACTIVITIES/ SCHEMES PROPOSED FOR THE ACADEMIC YEAR 2014–15

4.8.15 Centre for New and Renewable Energy Studies

The University has earmarked Rs.25 lakh to conduct studies relating to

sustainable energy and provide training for the stakeholders. Setting up of Solar gadgets and bio gas plants in the campus is in the pipeline.

Construction of check dams have been planned at various strategic locations in the campus for improving rain water harvesting.

Wi-Fi Connection

4.8.16 In addition to the exiting LAN connectivity, it is proposed to upgrade the Internet accessibility through Wi-Fi technology throughout the Periyar University campus.

4.9 THIRUVALLUVAR UNIVERSITY

4.9.1 Thiruvalluvar University with the jurisdiction extending over Vellore, Thiruvannamalai, Villupuram and Cuddalore Districts was established in the year 2002, with 52 affiliated Colleges. At present, 106 Colleges are affiliated to this University, which include 10 Government, 9 Aided, 6 Constituent Colleges, 81 Self-Financing Arts and Science Colleges including 3 Oriental Title Colleges and one Stand alone MBA institution.   Presently, about 1,20,000 students are studying in the affiliated Colleges of the University.

Thiruvalluvar University was granted 12(B) status by the University Grants Commission on 24.01.2014.

Separate Boards of Studies (PG) for the University Departments namely, Zoology, Biotechnology, Chemistry, Mathematics, Economics, Tamil and English have been constituted.

4.9.2 **Constituent Colleges**

For the purchase of land and construction of permanent buildings for the University Constituent Colleges at Arakkonam, Kallakurichi and Tiruppattur, the Government of Tamil Nadu has sanctioned Rs.483.32 lakh Rs.44.03 lakh and Rs.141.66 lakh respectively. For recurring and non recurring expenditure to the University Constituent College at Tittakudi, Rs.121.27 lakh was sanctioned by the Government of Tamil Nadu.

4.9.3 **Sports**

- The University Football Women Team won first place in the South Indian Inter University Football Women Tournament conducted by Anna University from December 15 to 24, 2013.

- The University Football Women Team secured first place in the All India Inter University Football Women Tournament

held at Guru Jambheshwar University, Hisar, Haryana during February 8 to 9, 2014.

- Mr. R.Manikandan of the Thiruvalluvar University Weight Lifting Team won gold medal at the All India Inter University Weight Lifting Championship held at in Coimbatore from March 22nd to 26th, 2014.

4.9.4 Proposals 2014-15

- To obtain General Development Grant for infrastructure development from UGC.

- Establishment of Equal Opportunity Cell,

- Remedial Coaching Centre for SC/ST/OBC (Non-Creamy layer) and Minority community students; Coaching classes for Entry in to services for SC/ST/OBC (Non-creamy layer) & Minority students Coaching

for NET for SC/ST/OBC (Non-creamy layers) & Minority students.

- Establishment of Environmental Biotechnology Research Centre to address the local area specific environmental related issues.

- To construct students' hostel and auditorium.

4.10 TAMIL NADU OPEN UNIVERSITY

4.10.1 The Tamil Nadu Open University (TNOU) was established in 2002. There are 91 academic Programmes, one-fifth of which are in the skill development/vocational areas, and an on-roll student population of more than 4 lakhs. The University also offers full-time M.Phil and Ph.D. research Programmes. As of now, the University operates through 13 academic Schools, 5 service Divisions and 1 Centre for Electronic Media Production and Research.

4.10.2 The University admits students throughout the year under 2 admission cycles of Calendar Year (Jan-Jun) and Academic Year (July-Dec) and also conducts examinations twice a Year. Since its inception, the University has been using indigenously developed self-learning materials (SLM) for teaching/learning purposes. Most of the University's operations have been brought under e-Governance. The

learning needs of the students are addressed through a robust network of 621 learner support centres, comprising 4 Zonal Centres; 4 Constituent Community Colleges; 195 Community Colleges; 165 Computer Programme Centres (CPC); 152 Learning Resource Centres (LRC); 33 Off-Campus Centres; 28 Learning Centres (LC); 23 B.Ed. (General/SE) Centres; 9 Jail Centres; 5 University Co-coordinating Centres (UCC) and 3 Counseling and Psychotherapy Centres.

Achievements

4.10.3 In collaboration with the Commonwealth Educational Media Centre for Asia (CEMCA), a subsidiary of the Commonwealth of Learning (COL), Vancouver, Canada, the University organizes training sessions for the production of NVEQF- compliant self-learning materials for 7 trades such as Agriculture, Applied Arts, Automobiles, Computer, Entertainment, Para

Medicals and Software Equipment. In association with the Tamil Nadu Agriculture University, TNOU is launching 16 agriculture related Programmes under a skills development scheme. Furthermore, the University has identified 347 traditional skills for purposes of Traditional Skills Certification for livelihood improvement.

4.10.4 The University is launching an online Global Document Verification System through which the genuineness of the Certificates issued by the University could be verified with ease. A Virtual Study Centre for anywhere/anytime student admission has also been launched. The University has embarked on technology enhanced learning environments with the uploading of all its Courses along with the multi-media materials in the Server and launching of an online MBA Programme in IT-Enabled Financial Services and introduction of i-Radio.

- Establishment of Zonal Centres in Coimbatore, Dharmapuri, Madurai and Trichy (Srirangam). The Chennai Zonal Centre is being established.

- Establishment of TNOU Constituent Community Colleges in Coimbatore, Dharmapuri, Madurai and Trichy (Srirangam). The establishment of TNOU Constituent Community Colleges in the remaining 28 Districts of Tamil Nadu is under progress.

- Construction of the Administrative Block of the University.

- Launching of the 6th Pan Commonwealth Forum on Open Learning in collaboration with the Commonwealth of Learning (COL), Canada, and the IGNOU, New Delhi.

- Obtaining of the administrative sanction for the construction of the

Academic Block of the University at an outlay of Rs.8.44 Crore.

- Establishment of 40 new Community Colleges to offer TNOU Vocational Diploma Programmes.

- Establishment of Foreign Languages Lab, Smart Classrooms with video conferencing facility, Curriculum Development Cell and Entrepreneur and Skill Development Centre.

- Imparting vocational education Programmes to the Jail Inmates waiving payment of tuition fees.

- Commissioning of dedicated bandwidth under the National Knowledge Network (NKN) Scheme.

- Participation of the Members of Staff at various National/International Conferences and publication of their research studies in leading professional Journals.

- Acquisition of 20,477 books for the Library.

- Obtaining of ISBN numbers for the TNOU Course Materials.

- Production of multi-media learning materials and development of multi-media CDs exclusively on Sangam Literature.

4.10.5 Activities/Schemes undertaken during 2013-14

- Imparted entrepreneurial training to 60 Community College Teachers and 200 students through the Entrepreneurship and Skill Development Centre. A total of 17 experts from Austria, Australia, Canada, Ethiopia, Germany, Malaysia, Poland, Singapore and Sri Lanka delivered lectures and participated in the revision of curricula, under the auspices of the Curriculum Development Cell and under the Foreign Experts Visit Initiative.

- Initiated collaboration with the Department of Transport, Government of Tamil Nadu, for the introduction of 8th Standard Sarathi Programme for the Drivers.

- Upgradation of the Media Studio of the University.

- Introduction of bar coding facility for the TNOU study materials.

- Training of the staff of the National Institute of Education, Maldives in the preparation of self-learning materials.

- Creation of database of the University syllabi.

- Commencement of the Construction of Academic Block and Materials Complex.

- Creation of multi-modal materials in the arena of Special Education.

4.10.6 **Proposed Activities/Schemes during 2014-15**

- Introduction of NVEQF-compliant Programmes through TNOU Community Colleges.

- Launching of Student Profile in the TNOU website and SMS integration.

- Development of digital content to supplement printed materials; introduction of Online Registration for

student admission and expansion of Online Programmes.

- Embarking on Cloud computing technology for University operations.

- Introduction of Tamil Computer Literacy Programmes, etc., in collaboration with the Central Institute of Indian Languages, Mysore.

4.11 ANNAMALAI UNIVERSITY

4.11.1 Annamalai University, one of the largest unitary, teaching, and residential Universities in South Asia, has since its inception in 1929, aimed at imparting education in all fields of knowledge to students, from across the country and abroad.

4.11.2 One of the most significant developments has been the repealing of the Annamalai University Act, 1929 which has been replaced by the Annamalai University Act, 2013 (Tamil Nadu Act 20 of 2013) after obtaining the assent of His Excellency, the President of India.

4.11.3 Consequent on the taking over of the direct control of the University administration, by the Government of Tamil Nadu and the Annamalai University Act, 2013, having come into force, several significant steps have been taken to ensure that the University is administrated and

managed in fulfillment of the purpose for which it was established.

Achievements

Tuition fee waiver for First Generation Graduates

4.11.4 The Government have sanctioned tuition fee concession to the first graduate students of this University in G.O.(Ms) No.14, Higher Education (H1) Department, dated 23.01.2014. The Government have sanctioned a sum of Rs.1.66 crore which have benefitted 1,150 first graduate students of this University admitted in Engineering, Medical, Dental, Agriculture and Para Medical Courses during the academic year 2013-14

4.11.5 **Examination Reforms**

Optical Marking Recognition (OMR) based answer booklets have been introduced in the University examinations. This will help in expediting the processing of results besides avoiding human errors in

transferring marks from evaluated answer booklets to the records of the examination section.

4.11.6 **Grants**

During the financial year 2013-14, the Government have released a sum of Rs.129.88 crore towards Special Grants and Block Grants. Further a provision of Rs.168.81 crore has been made as special Grants in the Budget Estimate 2014-15.

Activities during 2013−14

4.11.7 Research Projects such as the evaluation of the anti – cancer effects of the neem limonoids azadirachtin and nimbolide in Hep G2 cells in vitro and in a rat hepatocarcinogenesis model in vivo were done. Major National / International, Seminars National / International. Training Programmes and Innovative Programmes were conducted. Funds were received from the UGC/SAP/DST and other funding

agencies in respect of Faculty of Science Rs.4,08,53,232/-, Faculty of Indian Languages Rs.49,31,575/-, Faculty of Education Rs.60,47,526/- and Faculty of Agriculture Rs.58,96,000/-.

Proposed Activities during 2014-15

4.11.8 National Conference on Environmental Issues and Challenges, Research Projects (National / International), Seminars (National / International), Training Programmes, Innovative Programmes are proposed to be conducted. UGC/SAP/DST and other funding agencies have assured sanction of Rs.12,52,80,861/- for Faculty of Science, Indian Languages, Education and Faculty of Agriculture.

4.12 THE TAMILNADU TEACHERS EDUCATION UNIVERSITY

4.12.1 The Tamil Nadu Teachers Education University established in 2008 facilitates enhancement of the quality of teacher education with particular reference to innovations and changes that are taking place in this very important sector.

4.12.2 **Objectives of the University**

- to academically monitor teachers education as approved by the National Council for Teachers Education at all levels in the State;

- to develop research facilities in teachers education and to find out ways and means to workout the modalities for introduction of innovative courses in teachers education;

- to conduct and organize seminars, workshops and symposia for promoting

teachers education and to develop the extension activities;

- to establish and maintain University libraries, research stations and publication bureau;

4.12.3. Establishment of Department of Study and Research: The University has established the following Departments of study and research with a faculty strength of **one** Professor, **two** Associate Professors and **four** Assistant Professors in each department:-

(1) The Department of Pedagogical Sciences, (2) The Department of Value Education, (3) The Department of Educational Psychology, (4) The Department of Educational Technology, (5) The Department of Curriculum Planning and Evaluation and (6) The Department of Educational Planning and Administration.

4.12.4 National Knowledge Network (NKN) Connectivity: Under the aegis of the Government of India, Bharat Sanchar Nigam Limited installed one GB connectivity to Tamil Nadu Teachers Education University and it will be extended to all the colleges of education affiliated to this University.

Membership in Association of Indian Universities (AIU)

4.12.5 The Governing Council of the Association of Indian Universities has granted provisional membership to this University.

Colleges affiliated to this University

4.12.6 The University has 665 colleges of education which include 7 Government, 16 Government Aided and 642 Self financing Colleges of Education as on date. Student strength of the University for the year 2013-14 is 72,171.

4.12.7 **Activities during the year 2013-14**

a. **Ph.D and M.Phil in the Departments of the University:** Research Programmes in Ph.D and M.Phil have been introduced in the various University Departments with effect from January 2014.

b. **Common Entrance Test for admission to Ph.D Degree Programme:** The University has conducted Common Entrance Test for the first time for admission to Ph.D Degree Programme in the affiliated colleges of education as well as in the University Departments for the January 2014 session.

c. **M.Phil and Ph.D Programme:** The University has granted recognition to 13 colleges of education as Research Centres for offering M.Phil and Ph.D Degree Programmes.

d. **International Conference:** The University has organized three days

International Conference on "Approaches and Strategies for Generation of Y Learners" from 21.06.2013 to 23.06.2013.

e. Sports and Cultural Meets: The University has conducted Zonal Level Sports and Cultural Meets for the students undergoing B.Ed/M.Ed Degree Courses during the year 2013-14 in the affiliated colleges of education in March 2014 at Chennai, Coimbatore, Salem, Madurai, and Tirunelveli Zones. This will be followed by in the State Level Competitions.

f. Research Forum: The University has constituted Research Forum comprising 13 academicians to effectively monitor Research Activities in the University and in the affiliated colleges of education.

g. Endowments for Prizes and Medals: The University is maintaining 32 Endowments for awarding prizes and medals for meritorious students in the

examinations as per the norms of the donors.

h.   International Conference: The University organized a three-day International Conference on "Building Innovations for Creative Society and Generating Employability – Beyond Digital Age" from 19.05.2014 to 21.05.2014.

i. International Online Journal: The University will be publishing an International Online Quarterly Journal.

4.12.8   Proposals for 2014-15

- The University has proposed to organize a National Level Workshop on teacher education in collaboration with NCTE, New Delhi.

- The University will also organize an International Conference in 2014-15.

- The University will conduct Single Window Counselling for admission of students to B.Ed., M.Ed., Degree Courses for the academic year 2014-15.

4.13 ANNA UNIVERSITY

4.13.1 Anna University was established on 4th September, 1978 by integrating four well known technical institutions in the city of Chennai namely, College of Engineering, Guindy (CEG-1794); Alagappa College of Technology (ACT-1944); Madras Institute of Technology (MIT-1949); and School of Architecture and Planning (SAP-1957), of Chennai. The Main Campus (CEG, ACT & SAP) extends over 228.45 acres and the MIT Campus, 15 kilometers away from the Main Campus extends over 50.28 acres. A small campus of 5 acres at Taramani, 5 kilometers from the Main Campus houses the advanced Bio-technology facility.

4.13.2 During the year 2001, Anna University had been converted into an affiliating type of University by bringing together about 250 Engineering Colleges in

the State of Tamil Nadu., under one umbrella.

4.13.3 Anna University was converted back to unitary type on 18th June 2010 by establishing five Anna Universities of Technology at Chennai, Madurai, Tirunelveli, Trichy and Coimbatore. In an epoch making move, by an Act which came into force on 1.8.2012, Anna University became an affiliating type of university with nearly 640 institutions to ensure high standards in engineering education.

4.13.4 **OBJECTIVES OF THE UNIVERSITY**

- To constantly raise the quality of engineering education to produce superior human resource to match rapid technological developments
- To share its academic experience and infrastructure with other institutions for providing quality education across the

State and help students to realise their dreams.

- To uphold the highest ethical and professional standards while imparting engineering education and while fulfilling its obligations to students and staff to serve the society to actively take part in building a knowledge-based society.

4.13.5 **IMPORTANT ACHIEVEMENTS**

- Anna University can be proud of having 12607 Ph.D. and 429 M.S./M.Tech. (By Research) scholars on roll. A total number of 1382 Ph.D. and 34 M.S. (By Research) scholars were admitted during 2013-14.

- Anna University successfully conducts UG & PG admissions under Single Window Counselling every year covering about 1.85 lakh candidates.

- During the year 2011-12, 15 students, from various Universities visited Anna University and 4 students from Anna University visited foreign Universities. In the academic year 2012-13, 33 students from various Universities had come to Anna University and 20 students from Anna University visited foreign Universities and during the year 2013-14, 14 students from various Universities came to Anna University and 38 students from Anna University visited foreign Universities under exchange programmes with financial assistance from the Centre for International Affairs, Anna University, Chennai.

- Through a Government of India Scheme, 14 students for 2011-12 (12 for P.G. Programme and 2 for Ph.D.), 5 students for pursuing Ph.D. for 2012-13 and 11 students for 2013-14 (10 for Ph.D. and 1 for P.G.Programme) from Iran, Iraq,

Sudan, Nepal, Ethiopia, etc. have joined Anna University with ICCR Scholarship.

- The University has received Rs.26.75 crore as extra mural funding from Central and various State Governments during 2013-14.

- During the year 2012-13, the faculty of various University Colleges of Engineering have undertaken research projects to the tune of Rs.807 lakh.

- The current 'h' index of the University is 76, based on original research publications during 1998-2013.

- In the last one year, 63 sponsored research projects have been carried out by the faculty of Anna University for Rs.15.45 crore. Anna University has earned Rs.14.13 crore through 923 consultancy services and Rs.51 lakh through 1510 projects undertaken by the University.

- During November 2012, Anna University has received a US patent for "Chained Checksum Error Correction Mechanism to improve TCP performance over network with wireless links".

- To encourage research activities, the University has sponsored Rs.25,000 for student innovative project and Rs.50,000 for Faculty Research Project under Research Support Scheme.

- From 2013 onwards, 150 scholars pursue full-time Ph.D. every year with Anna Centenary Research Fellowship instituted from University funds (Rs.12000/- p.m. as stipend and Rs.25000/- p.a. as contingency grant).

- 80 Smart Classrooms at a cost of Rs.2.10 crores have been established in the University.

- During January 2012, conventional notice boards have been replaced by technology of E-Notice Boards at a cost

of Rs.50 lakh which enable quick dissemination of information from Administrators and Faculty to the students.

- The University Grants Commission (UGC) has sanctioned a sum of Rs.25.97 crore to Anna University towards General Development Assistance Scheme under XII Plan (2012-2017).

- Based on the Tamilnadu Solar Energy Policy 2012, the University has installed Roof-top Off-Grid PV system in the following campuses:-

  1. College of Engineering, Guindy Campus (5 kW)
  2. Alagappa College of Technology, Guindy Campus (3 kW)
  3. Madras Institute of Technology Campus (12 kW)

- During 2012-13, the University arranged campus placement for 3600 students belonging to U.G. and P.G. Programmes studying in the University

Departments with a pay package ranging from Rs.4 lakh to Rs.16 lakh per annum. More than 150 companies both National and International visited the campus for placement. During 2013-14, the University arranged campus placement for 1239 students belonging to U.G. and P.G. Programmes studying in the University Departments with a pay package ranging from Rs.4 lakh to Rs.16 lakh per annum.

- Memorandum of Understanding was signed between Anna University and the Director General of Police, Tamil Nadu on 3.3.2014 to undertake research and development (R&D) projects based on the requirements of Director General of Police, and suitable training programmes were organised for the employees under the control of Director General of Police.

- The University has established Internal Quality Assurance Cell (IQAC) and Training Centre for Builders during the year 2012-13

- Nearly 22,838 students and 1,275 staff members and their families have benefited through Medical Insurance Scheme.

- During 2012, Anna University Library has received IEEE, ASME, ASCE and Springer awards for the highest number of e-journal usage.

- During 2013-14, Anna University has instituted Active Researcher Award, Active Consultant Award, Best Innovative Award, Technology Transfer Award to promote research and consultancy among the faculty members.

- The faculty and students of the Department of Aerospace Engineering, Madras Institute of Technology have

designed and developed an Unmanned Aerial Vehicle called "**DHAKSHA**". The Government of Tamil Nadu has sanctioned a sum of Rs.95 lakh towards the purchase of three Unmanned Aerial Vehicles from Anna University for the use of Police Force. The University assisted in relief and rescue operations in recent Himalayan Tsunami at Utharkhand by providing instant thermal/video images of the scene of the disaster obtained through the vehicle.

- The AU-KBC has automated and networked all 32 District Central Libraries and Connemara Library in Tamil Nadu using the FOSS product 'Koha' under an order from the Director of Public Library, Tamil Nadu State.

- Anna University is celebrating "Technology Day" every Year. As part

of this event an award in the name of "Technology Transfer Award" has been instituted to honour the best research or consultancy work that has resulted in Technology Transfer.

- The University has conducted four-day training programmes on "Solar Photovoltaic Systems" for three batches during February and March 2014 utilizing the UGC grant.

- The University has signed 6 Memorandum of Understandings during the year 2013-14.

- During 2013-14, the University has revised the Curricula and Syllabi for the programmes offered at affiliated engineering Colleges.

4.13.6 **ACTIVITIES/SCHEMES UNDER TAKEN DURING THE YEAR 2013-14**

- Various schemes and activities have been undertaken from the grants received from DST-FIST during the year 2013-14 as

follows:-

- Chemistry   - Rs.1.22 lakh
- Chemical Engineering - Rs.75 lakh
- Industrial Engineering - Rs.36 lakh
- Electrical and Electronics
  Engineering   - Rs.100 lakh

4.13.7 ACTIVITIES/SCHEMES PROPOSED TO BE UNDERTAKEN DURING THE YEAR 2014-15

- In a novel approach, the Media Centre with the support of Ministry of Human Resources and Development, plans Direct-To-Home telecast facility, to benefit students and faculty members, after College hours.

- In order to complement the large electricity requirement, Anna University has proposed to install 300 kW grid connected roof top solar PV system at an estimated cost of Rs.1.5 crore through Tamil Nadu Energy Development Agency (TEDA).

- Up-gradation of Post Graduate Research Centre with High Tech Laboratory in the Department of Electronics & Communication Engineering.

- Proposal has been submitted to DST, New Delhi on "DST-PURSE-II" Programme seeking a grant of Rs.35.60 crore for a period of 3 years.

5. TAMIL NADU ARCHIVES

5.1 Tamil Nadu Archives, located in the heart of the City of Chennai in Egmore plays an indispensable role in the day to day administration of the Government of Tamil Nadu, as the custodian of public records. The Centenary of Tamil Nadu Archives was celebrated in October 2009. Tamil Nadu Archives houses the records of various Departments of the Secretariat, erstwhile Board of Revenue, few Heads of Departments, premutiny period records of Collectorates and District Courts and the records of defunct departments. Records in English, Dutch, Danish and Persian languages are also housed here.

5.2 Many authors, historians and researchers from Universities and Colleges, both Indian and foreign, are visiting Tamil Nadu Archives for their research. The Tamil Nadu Archives Library, housing rare books is

also a rich treasure trove to the scholars. District Gazetteers for various Districts are published by the Tamil Nadu Archives.

5.3 Under Part II Scheme 2013-14, Storage Cabinet for Microfilm unit was purchased to the tune of Rs.10.00 lakh. In order to preserve the records, the work of digitalization of the same by scanning and microfilming is being done in a phased manner. Under Part II Schemes 2014-15, it has been proposed to digitalize mended records of pre 1900 and post 1900 at a cost of Rs.10.00 lakh, by scanning and microfilming.

6. TAMIL NADU STATE COUNCIL FOR HIGHER EDUCATION

6.1 The Tamil Nadu State Council for Higher Education (TANSCHE*)* was established by an Act of the Tamil Nadu Legislative Assembly in the year 1992 for the promotion and coordination of higher education policies and programmes between Central, State Government and University Grants Commission.

6.2 **ACTIVITIES / SCHEMES UNDER TAKEN DURING THE YEAR 2013-14**

- Under the scheme of *Study Abroad Programme* a Memorandum of Understanding was signed between *TANSCHE* and British Council in the presence of **Hon'ble Chief Minister** of Tamil Nadu to send 25 post-graduate students and 5 teachers of Government Arts and Science Colleges to study one

semester in Universities/Colleges in the United Kingdom.

- The 25 students have studied one semester and the faculty attended observation classes/ interactive sessions in the Edge Hill University, Birmingham University, Nottingham University, Sheffield Hallam University, King's College and Royal Holloway College, London in the United Kingdom. For the year 2014-15, the selection of students and faculty is under progress.

- Tamil Nadu State Council for Higher Education is the nodal centre for University – Business Collaboration in Tamil Nadu. It formed a Task Force and formulated guidelines for coordinating the industries, corporate sectors and universities in research interfacing and IPR issues. The Business Collaboration

Centres have been established in the following six Universities.

1. University of Madras
2. Madurai Kamaraj University
3. Bharathiar University
4. Bharathidasan University
5. Manonmaniam Sundaranar University
6. Alagappa University

- The scheme of Creation of Soft Skill Centres has enabled the establishment of Soft Skills Centres in 30 Government Arts and Science Colleges. The Tamil Nadu State Council for Higher Education in collaboration with INTEL has trained 450 College teachers (15 from each College) who would in turn train the students of their respective Colleges. The training has been customized to meet the growing employment demands of the students and to enable them to develop soft skills for their personality and career development.

Rs.4,50,000/- has been spent for each College under the scheme. It is proposed to establish Soft Skills Centres in the remaining 44 Government Arts and Science Colleges in 2014-15.

- The scheme of Special Care for Slow Learners, aimed at preventing College Dropouts, has been implemented in 6 Government and 18 University Constituent Arts & Science Colleges. Each College was funded with Rs.1,25,000/- for the year 2013-14 to conduct special coaching classes for students.

- Induction training programme was conducted for 3 days for Grade I and Grade II principals of Government Arts and Science Colleges. A total of 53 Principals attended the training programme. The training focused on administrative, academic, financial responsibilities and human relations management.

- 5 day administrative training was given for Registrars and Administrative Officers of the Universities at the Anna Institute of Management.

- 20 minor research project proposals submitted by the teachers of Government Arts and Science Colleges were selected for funding with a sum of Rs.1 lakh each.

- 100 student mini project proposals submitted by the Post Graduate students of Government Arts and Science Colleges were selected for funding with a sum of Rs.15,000/- each.

- The Council is publishing Journal of Humanities and Social Sciences and Journal of Modern Sciences biannually to promote research activities.

- To provide compatibility in subjects offered by various Arts and Science Universities in Tamil Nadu and to facilitate the mobility of faculty and students from one University to another, TANSCHE is

forming the following State Integrated Boards of Studies, comprising of experts in the respective subjects:

- Biological and Bio-technological Science

- Mathematical Sciences
- Physical Sciences and Chemical Sciences

- Computer Science and Information Technology

- Managerial and Business Sciences
- Social Science
- Humanities
- Languages

- An International Relations Centre at the Tamil Nadu State Council for Higher Education is being created to propel the educational institutions in Tamil Nadu to participate in global higher education. The Centre would assist in establishing linkages between Colleges / Universities in Tamil Nadu and international

institutions in the areas of teaching, research, internship capacity building and extension services.

6.3 **ACTIVITIES / SCHEMES PROPOSED FOR THE ACADEMIC YEAR 2014-15**

* to become the maximum benefitted State by participating in the centrally funded Rashtriya Ucchatar Shiksha Abhiyan *(RUSA)* programme initiated by the Planning Commission in the Twelfth five-year Plan.

* to conduct Teacher Exchange Programmes among different States of India, to share the benefits of their teaching experience and research activities. Moreover it would establish cultural understanding among States.

* to conduct workshops for students and teachers of Government Colleges to sensitize them of the various research programmes and to train them to write proposals.

- to conduct training programmes for the newly promoted Government College Principals and training programmes for the College teachers recruited through the Teachers Recruitment Board.
- To open a new Faculty Training /Resource upgradation Centre.

7. TAMIL NADU STATE COUNCIL FOR TECHNICAL EDUCATION

7.1 The Tamil Nadu State Council for Technical Education was established by an Act of the Tamil Nadu State Legislative Assembly in the year 2010 for co-ordination and determination of standards in Colleges and scientific research in Technical Education in the State and to forward the Developmental Programmes of Colleges to the UGC and AICTE.

7.2 ACTIVITIES UNDERTAKEN DURING 2013-14

- Coordinated the conduct of special training programme in English language (Bridge Course) at Anna University, Chennai with a view to enhance the comprehension of English as a subject in respect of fresh entrants to engineering education with the active co-ordination of the British Council.

- Coordinated the conduct of Faculty Development Programme for the faculty of members of Maths Department of all Engineering Colleges of Anna University.

- The original educational resources available with Tamil Nadu State Council for Technical Education, Chennai on the subjects namely a) Technical English b) Engineering Physics c) Mathematics d) Trigonometry e) Limits and Continuity and f) Integral Calculus were distributed to 500 Engineering Colleges at a cost of Rs.100 lakh from the Development fund account of the Council.

7.3 **ACTIVITIES TO BE UNDERTAKEN DURING 2014-15**

- To conduct International Seminars/Workshops on Quality Assurance, Faculty Development in thrust areas in Engineering and Technology.

- To take steps for enhancement of quality of research with Industry participation in Colleges of Engineering and Technology.
- To widen efforts to cover large number of institutions with the view to improve the quality of teaching in all Colleges to achieve the vision of Tamil Nadu Government so as to attain excellence in Technical Education.

8. SCIENCE CITY

8.1 Science City, was established with the prime objective of sensitizing, popularizing and propagating Science among the masses. The geographic area earmarked as Science City is an unique agglomeration of 60 educational and research institutions and can be considered a repository of quality technical inputs which is housed in these premier institutions. Utilizing this unique knowledge repository, Science City has been organising several programmes pertaining to Science and Technology starting from basic Sciences to advanced areas viz., the frontier areas of Science and Technology.

8.2 The activities of Science City include organizing programmes such as popular lectures, seminars, summer training programmes, workshops, entrepreneurship development programmes, Science for the differently-abled, Science festival, Science

for the rural poor, Tamil Nadu Lifetime and Young Women Scientists Awards for Women, Children's Science Academy Award for school students etc. Science City has created the desired impact among the College / University students through its activities.

ACTIVITIES/ SCHEMES DURING THE YEAR 2013-14

Workshop on basic and molecular techniques in Microbiology

8.3   Sensing the need to prepare students as global leaders, Science City envisaged a programme for the benefit of students pursuing Under Graduate Courses in Microbiology, Biochemistry and Biotechnology. This programme helps students develop insights in the area of Microbiology. Hands-on training on laboratory techniques ensured students' competency to face the competitive world. Science City in association with The King Institute of Preventive Medicine and

Research organized a series of six hands-on training programmes in 6 modules. The hands-on workshop covered the following laboratory techniques in six different modules: Microscopy and Microbial Staining Procedures, Media Preparation and Sterilization Procedures, Medical Microbiology, Serological Techniques, Molecular techniques and Bioinformatics.

Installing Photovoltaic Solar Panel to Harness Solar Energy

8.4 Photovoltaics in the field of technology and research relates to the devices which directly convert sunlight into electricity. The environmental benefits of Photovoltaics are great. Science City has installed a 10 kW Grid Type Roof Top Solar Photovoltaic System to generate electricity by harnessing the abundant sunlight available.

Chennai Science Festival 2014

8.5   Science City organized the 7th Chennai Science Festival 2014 from 29th January to 1st February, 2014 at the Anna Gem Science Park School. 110 institutes belonging to both the State and Central Governments participated in the Chennai Science Festival. It was visited by students from 86 Schools and 14 Colleges apart from the general public. The festival comprised a mega Science exhibition, popular lectures, panel discussions and science based competitions.

Tamil Nadu Young Women Scientist Award

8.6   Science City bestowed on women scientists the coveted Tamil Nadu Young Women Scientists Award during the inaugural function of the Chennai Science Festival 2014. The outstanding research work of 10 women scientists from various Universities and Colleges were recognized.

The award comprises cash prize and a brass citation.

Children Science Academy Award

8.7 Considering the need to motivate young minds to take up Science as a career, Science City bestowed 69 young School students from across the State with the coveted Children's Science Academy Award. The award is given to students with innovative ideas and carries a cash prize and a certificate. As part of the award the students are invited to the Science City to attend a Science Camp during the summer vacation.

ACTIVITIES / SCHEMES DURING THE YEAR 2014-15

8.8 Workshop on Science for the Socio Economic Upliftment of the Rural Poor

i) Rural enterprise is the need of the hour. Sustainable rural activity like agriculture and animal husbandry is getting reduced day by day. Real estate enterprises

are overtaking regular rural economy. The migration of rural folk is inevitable. To make them understand the importance of rural economy, they must be engaged in rural based activities. The current scenario is ripe for initiating such measures to sustain the rural enterprises and develop rural based entrepreneurs. One such activity is animal husbandry which involves rearing of sheep, goat, chicken, rabbit, cattle and pig.

ii) It is proposed to engage the rural poor for selected animal husbandry activities and provide them with an insight into scientific methods of animal rearing. Currently, farmers are keen to be engaged in sheep, goat, rabbit and pig rearing. It is considered to be the most lucrative rural based activity. It is necessary to fine tune the same with certain scientific methods to be adopted in farming. The farmers have to be made aware of a more scientific and cost effective method of rearing the farm animals.

They need to be involved scientifically from the production point to marketing.

iii) The Science City proposes to organise a three day workshop on sheep/ goat, duck and pig farming to benefit the farming community immensely.

Workshop on Processing Milk, Meat and Fish Products

8.9 Food processing is the transformation of raw ingredients into food, or of food into other forms. Food processing typically takes clean, harvested crops or animal products and uses these to produce attractive, marketable and often long shelf-life food products. Benefits of food processing include toxin removal, preservation, easing marketing, distribution tasks, and increasing food consistency. In addition, it increases annual availability of many food items, enables transportation of delicate perishable foods across long distances and makes many

kinds of foods safe to eat by de-activating spoilage and pathogenic micro-organisms.

Processed food is usually less susceptible to early spoilage than fresh food and is better suited for long distance transportation from the source to the consumer.

Processing can also reduce the incidence of food borne diseases. Fresh materials, such as fresh produce and raw meats, are more likely to harbour pathogenic micro-organisms (e.g. Salmonella) capable of causing serious illnesses. Considering the above facts, Science City has proposed to organize a workshop in this area of Science for the benefit of students.

9. TAMIL NADU SCIENCE AND TECHNOLOGY CENTRE

9.1 Tamil Nadu Science and Technology Centre has been established in Chennai with the main objective of popularising the concepts of Science and Technology in easier and enjoyable ways. The main idea is to create scientific temper and arouse curiosity enabling the younger generation to comprehend scientific concepts, thereby paving the way to attract the younger generation to the Science and Technology sector. To cater to the needs of students in other parts of Tamilnadu, Regional Science Centres at Tiruchirappalli and Coimbatore and District Science Centre at Vellore have been established.

9.2 The Science and Technology Centre organises and conducts temporary exhibitions, short-term Courses in Astronomy, Computer Workshops, Seminars and Lectures on Science, Summer Science

Camps, Winter Science Camps, Astronomy Camps, Maths Talent Contests, Astronomy Talent Contests and Programmes such as "Meet the Scientist", "Meet Your Medical Expert", etc., for the benefit of the student community.

9.3 **Activities**

For popularising Science and Technology concepts, there are various galleries on Science and Technology in Periyar Science and Technology Centre, Chennai, besides the models of five types of lands described in Ancient Tamil Literature. There are exhibits on various scientific principles, in the Science Park to enable children enjoy learning the concepts of Science and Technology effortlessly. Also 3D Science Theatre, Evolution Park (Dinosaur Park) and Birla Planetarium have been established in Periyar Science and Technology Centre, Chennai.

Regional Science Centre with facilities of four galleries, namely, "How Things Work

Gallery", "Textile Gallery", "Physical Sciences Gallery" and "Fun Science Gallery" along with 3D Theatre and a Science Park has been established at a cost of Rs.850 lakhs (Rupees Eight hundred and fifty lakhs only) in Coimbatore. The Regional Science Centre has been dedicated to the nation by the **Hon'ble Chief Minister** of Tamil Nadu.

a) To make the public aware of technological developments taking place in our Defence Forces, a "Gallery on Defence Research and Development" is being established at an estimated cost of Rs.100 lakh with the assistance from the Defence Research and Development Organisation of Government of India, in the Periyar Science and Technology Centre, Chennai.

b) With a view to removing the phobia prevailing amidst the student community about Mathematics,

"Ramanujan Gallery" containing details covering π (pie) square, learning Mathematics through fun, usage of Mathematics in day – to-day life, Mathematics in Industries is being established at an estimated cost of Rs.40 lakh in Periyar Science and Technology Centre, Chennai. This gallery will be opened to the public during the financial year 2014-15.

c) To remove the phobia about Mathematics among the student community in rural areas, a Mobile Maths Bus at an estimated cost of Rs.25 lakh is being established. This Mobile Math bus will be shortly put into use for the public.

d) To make the public aware of the need to explore the possibility of harnessing the non-conventional sources of energy, a Non-Conventional Energy Park is to be established at Periyar

Science and Technology Centre, Chennai during the financial year 2014-15.

e) To dispel the misconceptions and eradicate unfounded fear about the nuclear power, a "Hall of Nuclear Power" depicting the constructive uses of Nuclear Power for the society under 21 titles is being established at an estimated cost of Rs.240 lakh at Periyar Science and Technology Centre, Chennai with the financial assistance of Nuclear Power Corporation of India Limited.

f) To make the public and students aware of the developments taking place in research in space, launching of rockets and Information on Planets and Stars, a "Space Science Gallery" is being established at an estimated cost of Rs.50 lakh at Periyar Science and Technology Centre, Chennai with the

financial assistance of Indian Space Research Organization.

ACTIVITIES FOR 2014-15

9.4 **ESTABLISHMENT OF REGIONAL SCIENCE CENTRE AT DHARMAPURI AND DISTRICT SCIENCE CENTRES AT THOOTHUKUDI AND KANYAKUMARI**

A Science Centre provides an experiment based learning ambience to inculcate the spirit of inquiry, foster creative talent and create scientific temper in the community as a whole. It is characterised by its two-pronged channel of communication - exhibits and activities. In order to cater to the needs of students and the public in the Western and Southern regions of Tamil Nadu, work relating to the establishment of a Regional Science Centre at Dharmapuri and District Science Centres at Thoothukudi and Kanyakumari are underway.

ESTABLISHMENT OF EVOLUTION PARK IN ANNA SCIENCE CENTRE-PLANETARIUM, TIRUCHIRAPPALLI.

9.5 Tamilnadu Science and Technology Centre has established an Evolution Park at Periyar Science and Technology Centre, Chennai. This attracts a large number of visitors to Science Centre to know about the evolution of life. Another modern Evolution Park will be established at Anna Science Centre, Tiruchirappalli. This Evolution Park will comprise Life like models starting from single cellular organisms to human development. These exhibits will be fabricated incorporating some pneumatic movements in order to attract the visiting public. The evolutionary history will, thus, be traced in the park by displaying exhibits on small invertebrates, first vertebrate, amphibians, reptiles, first bird, mammals, primates and the evolution of man. It will be established at an estimated cost of Rs.70.00 lakh.

PORTABLE PLANETARIUMS

9.6 Tamil Nadu Science and Technology Centre, through its planetariums at Chennai and Tiruchirappalli has actively engaged in popularization of Astronomical Concepts. Through the planetariums, the objects of night sky, celestial navigation methods, identification of constellations, causes for the seasons, apparent paths of the Sun and the planets are shown. Only with a planetarium, these concepts can be conveyed effectively. However, as this Centre has planetariums in only in two cities of Tamil Nadu, the students from remote villages of Tamil Nadu are deprived of this facility. Since it is not possible to establish a planetarium in all places, it is only with the help of Portable Planetarium that knowledge could be disseminated on planets, stars, sun and constellations. For the benefit of the students in all parts of Tamil Nadu, four portable planetariums will be procured for

the four Centres of Tamil Nadu Science and Technology Centre, viz., Chennai, Tiruchirappalli, Vellore and Coimbatore. These portable planetariums will be carried to nearby areas from the respective Centres at an estimated cost of Rs.40 lakh.

ESTABLISHING 3D SCIENCE THEATRE AT DISTRICT SCIENCE CENTRE, VELLORE

9.7 The scientific concepts can be easily communicated, if they are presented with an immersive effect. In order to provide information on scientific themes, 3D immersive projection movies will be useful. A 3D Science Theatre is being developed at a cost of Rs.23 lakh at District Science Centre, Vellore. The facility will be inaugurated in the financial year 2014-15.

ESTABLISHING ASTRONOMICAL OBSERVATORY IN PERIYAR SCIENCE AND TECHNOLOGY CENTRE

9.8 An astronomical observatory is a place where telescopes and instruments like,

imaging devices, analyzing instruments, etc., are kept for the people to observe the celestial objects and to carry out research on astrophysics. The telescopes are kept in a building with a movable domed roof. The dome has the facility to open and to turn towards the sky, while seen through the telescope. The dome movements are controlled by electric motors.

9.9 Observatories are used by the general public to view the celestial objects such as planets, moon, galaxies, star clusters, nebulae, etc. safely. Astrophysics is developing very fast. Students have very good career scope in this field, as researchers or technical support staff. Working in the real environment of an Observatory will motivate young minds. As for the general public, observing a celestial event in an Observatory will be satisfying and informative and this will be established at an estimated cost of Rs.40 lakh.

10.TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

10.1 The Tamil Nadu State Council for Science and Technology is an autonomous apex body of the Government of Tamil Nadu formed in 1984. It is mandated to develop the Science and Technology sector of our State. To fulfill this mandate, the Council is implementing several schemes related to research and development, extension and field oriented programmes.

STUDENT PROJECTS SCHEME

10.2 The objective of this scheme is to utilize the tremendous student talent available in the State for the development of Science and Technology. Under this scheme, final year students of UG/PG courses in Engineering / Medicine / Agriculture / Veterinary Sciences and P.G. Students of Sciences are provided with a maximum grant

of Rs.10000/- for carrying out research projects which are socially relevant and useful for the State. During 2013-14, 238 projects have been supported with a total cost of Rs.20.00 lakh, and it is proposed to implement an additional 225 student projects at a cost of Rs.20 lakh.

SCIENCE AND TECHNOLOGY PROJECTS

10.3   Under this scheme, projects in major areas of research in sectors such as Agricultural Sciences, Biological Sciences, Environmental Sciences, Engineering and Technology, Medical Sciences, Physical Sciences, Social Sciences and Veterinary Sciences are being carried out to contribute to the development of our State. The financial assistance is provided to scientists and researchers for carrying out R&D work having social relevance and usefulness to our State. 15 projects have been supported with a budget of Rs.35.00 lakh, and subsequently

15 more research projects will be implemented at a cost of Rs.35 lakh.

YOUNG STUDENT SCIENTIST PROGRAMME

10.4   Students of our State studying IX std., and interested in scientific research are given exposure to various aspects of science and technology so that they take up science and research as their career in future.   Selected students from various Districts are housed in a reputed College/ University with facilities and Resource Persons during the month of May.   Under this ongoing scheme, in the first phase, 20 Districts were covered benefitting 800 students with a budget outlay of Rs.30.00 lakh. In the second phase, 20 more Districts will be covered with a budget outlay of Rs.30.00 lakh benefiting 800 students.

YOUNG SCIENTISTS FELLOWSHIP SCHEME

10.5 Young scientists and researchers of our State below 40 years of age are facilitated to acquaint themselves with the latest techniques in Science, Research And Development. They are provided with a fellowship for a period of 2 to 6 months in addition to their regular salaries by their parent institutions. They take up training, learn sophisticated instrumentation techniques or modern research methodologies or do collaborative research work with senior Scientists in the host Research Centres / Universities within India. In the first phase, 13 Scientists have been supported with a budget of Rs.3.86 lakh. It is proposed to continue his programme and 10 more researchers will benefit with a budget of Rs.3.00 lakh.

PARTIAL ASSISTANCE FOR SEMINAR/ SYMPOSIUM /WORK SHOP

10.6 This scheme enables exchange of scientific knowledge and ideas between Scientists, Researchers and other sections of the society related to Science and research by providing partial financial assistance to the organisations within the State of Tamil Nadu, to organize seminars/ symposia/ workshops. In the first phase, 40 programmes were conducted at a cost of Rs.10.00 lakh. 40 seminars will be conducted at a cost of Rs.10.00 lakh in the second phase.

POPULARISATION OF SCIENCE AND TECHNOLOGY

10.7 This scheme enables popularization of Science and Technology among school children, farmers and public by providing financial support to Universities, Colleges and Voluntary Organisations to conduct Science Exhibitions, Teacher

Training Programmes, Popular Lectures, on various aspects of Science and Technology. 60 organisations were financially supported at a cost of Rs.7.50 lakh to conduct exhibition, lectures, workshops, etc., It has been planned to support 60 more organisations at a cost of Rs.7.50 lakh.

TRAVEL GRANT FOR YOUNG SCIENTISTS

10.8   Under this scheme, young scientists and researchers of Tamil Nadu below 40 years of age are provided with 50% of airfare in case of international conferences and 100% train fare (First class) in case of national conferences to present their research findings. 10 Scientists were supported with a total cost of Rs.2.50 lakh. It is proposed to implement this programme with a budget of Rs.2.50 lakh to benefit 10 more Researchers.

ASSISTANCE FOR SCIENCE & TECHNOLOGY PUBLICATIONS

10.9   Financial assistance is provided to individuals / organizations publishing magazines/books in Tamil so that knowledge in Science and Technology is disseminated among children and the masses and latest developments   reach   them.   Financial assistance is also provided to Scientists to bring out text books in Tamil for the use of students.   Two publications were financially supported at a cost of Rs.50,000/-. In addition, 2 more publications will be supported at a cost of Rs.50,000/-.

TAMILNADU SCIENTISTS AWARD (TANSA)

10.10   Scientists and researchers who have made significant contribution in their fields of research in the State are honoured and encouraged with a cash award and a citation.   Awards are given in 10

disciplines such as (i) Agriculture (ii) Biology (iii) Chemistry (iv) Engineering and Technology (v) Environment (vi) Medicine (vii) Mathematics (viii) Physics (ix) Social Sciences and (x) Veterinary Sciences. 11 scientists were selected for TANSA at a cost of Rs.4.00 lakh. Cash award is to be given to 10 more scientists at a cost of Rs.7.00 lakh.

CREATION OF SCIENTIFIC AWARENESS

10.11 Scientific Awareness and training relevant to the rural School students, farmers and self help groups is provided through this scheme. 10 Districts have been covered at a cost of Rs.6.50 lakh. Under this programme, 10 more Districts will be covered at a cost of Rs.6.50 lakh.

QUALITY IMPROVEMENT OF SCIENCE EDUCATION IN RURAL SCHOOLS

10.12 In-service Training programmes are conducted for the Science teachers who are handling the Science subjects of VI, VII

and VIII standards by teachers in the Arts and Science Colleges for a period of five days. 10 Districts have been covered at a cost of Rs.9.00 lakh. In addition, 10 more Districts will be covered at a cost of Rs.9.00 lakh.

DISSEMINATION OF INNOVATIVE TECHNOLOGY

10.13 Innovative technologies brought out by academic and research institutions are disseminated through training programmes and workshops so that field applications of useful innovations are enabled. 18 programmes have been organized with a budget of Rs.9.00 lakh in the first phase, 18 more programmes will be conducted at a cost of Rs.9.00 lakh in the second phase.

APPLICATION OF SCIENCE & TECHNOLOGY IN RURAL AREAS

10.14 To uplift the socio-economic status of the people belonging to a specific

area, unemployed youth and under employed people are given exposure / training through Science & Technology inputs. Under this scheme 10 Districts have been covered at a cost of Rs.10.00 lakh and subsequently 10 more Districts will be covered at a cost of Rs.10.00 lakh.

SCIENCE AND TECHNOLOGY CAPACITY BUILDING FOR INDUSTRIAL NEEDS

10.15 This programme acts as a bridge course reinforcing Institute-Industry interface and it enables graduates to develop skill sets relevant to industry. Self employment of young graduates is also encouraged. It is organized with the active collaboration of industries and Colleges (Polytechnics included). Under this programme 10 Districts have been covered at a cost of Rs.10.00 lakh and it has been planned to cover 10 more Districts at a cost of Rs.10.00 lakh.

PROGRAMME FOR BRIDGING THE GAP IN RESEARCH FUNDING FOR RESEARCH SCHOLARS IN COLLEGES

10.16   This scheme enables research scholars in Colleges to take-up research relevant to our State, to bridge the gap in research funding.   The proposals received from research students of various Colleges are evaluated and suitable projects are selected for financial support.   It was implemented with the budget of Rs.15.00 lakhs to support 5 research programmes. It is proposed to implement this programme at a cost of Rs.15.00 lakh to support 5 more research programmes.

PART II SCHEME

IMPROVEMENT OF SCIENCE & TECHNOLOGY INFRASTRUCTURE IMPROVEMENT FACILITIES AT GOVERNMENT COLLEGES

10.17   Government is promoting both quality and quantity in the higher education sector in order, that trained and technical

workforce is made available to the various sections of society. The Science & Technology infrastructure facilities available in Government Colleges have to be improved to make desirable impact in the area of Research and Development. Therefore, it is proposed to improve the infrastructural facilities such as laboratory and instrument facilities in Government Colleges for Research and Development. During 2014-15, 5 Science Colleges of our state will be covered under this scheme and each College will be provided with a sum of Rs.6.00 lakh each to upgrade and improve the facilities for Research and Development.

11. TAMIL NADU STATE URDU ACADEMY

11.1 The Tamil Nadu State Urdu Academy was inaugurated on 21.07.2000. Hon'ble Minister for Higher Education is the Chairman of the Academy.

11.2 WORKS

- In Tamil Nadu, Urdu Language is offered in 20 Colleges and Arabic language is offered in 5 Colleges.

- The Academy co-sponsors All India Mushairas conducted by National Chamber of Commerce.

- The Academy gives "Dr Abdul Huq Award" for Literary Excellence to Six poets with a cash award of Rs.25,000/- each and also gives merit awards and cash prizes to State rank holders in Urdu language.

11.3 **ACTIVITIES FOR THE YEAR 2014-15.**

- To grant cash prizes and scholarships to meritorious Urdu students.
- To grant financial assistance to Urdu Coaching centres.
- To conduct a local Mushaira to encourage poets who nurture the Urdu language.

**P.Palaniappan
Minister for Higher Education**