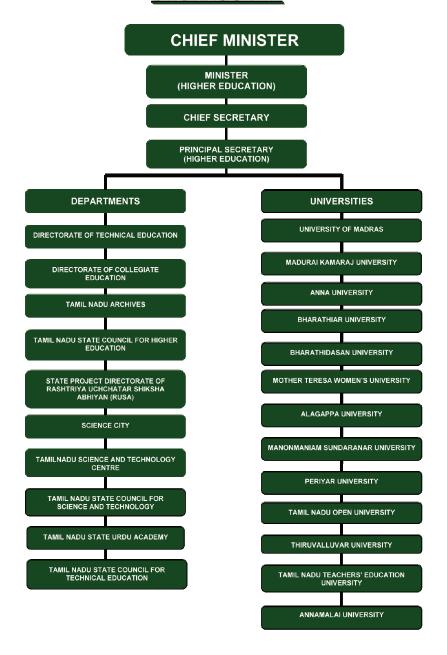
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### **ORGANOGRAM**



#### **POLICY NOTE**

### DEMAND NO. 20 - HIGHER EDUCATION 2020 - 21

#### 1. INTRODUCTION

"The wealth which can never decline is not riches but learning"

(Thirukkural 400)

### 1.1 VISION

The Government of Tamil Nadu in its endeavour to achieve development with a human face enshrines in its vision policies and strategies to translate the demographic dividend and potential of the youth into a wealth of human resource. Higher Education holds the promise of achieving this goal. It serves as a bridge between people and the world, achieving both individual growth and the common good.

**1.1.1** The Higher Education Department with its people-centric policies and programmes has made strategic interventions to realize the potential and aspirations of the youth. The enhanced Gross Enrollment Ratio (GER) (46.9 in 2016-17 to 49.0 in 2018-19) is indicative of the

number of youth who have been drawn into the process of empowerment through education. The Gender Parity Index (0.97 in 2018-19) also attests to the progressive policies of the Government.

The impetus to achieve large-scale, 1.1.2 affordable and quality higher education has resulted in Tamil Nadu having 21 Universities and 35 Colleges within the 1-100 in NIRF rank. State Universities and Government Colleges have pride of place among these top ranking Institutions. The noteworthy NIRF ranks among the State Universities are that of Anna University ranked 14, Bharathiar University 21, University of Madras 33, Alagappa University 47, Madurai Kamaraj University 69, Bharathidasan University 86 and Periyar University 97 in the overall category. In the Technical University category, Anna University was ranked 9 and stood first in the State University category. In the college category, Presidency College, Chennai stands in the 3<sup>rd</sup> position.

13 Universities, 1.1.3 There are State Colleges, Government Engineering 3 Government Aided Engineering Colleges, 20 Anna University Departments & Constituent Colleges and 554 self financing Engineering Colleges which are affiliated to Anna University, Government Arts and Science Colleges, Government Aided Arts and Colleges and 571 self financing Arts and Science Colleges which are affiliated to other State Universities in Tamil Nadu. There 719 Colleges of Education which are affiliated to Tamil Nadu Teachers Education University, the single overarching Teacher Education University the State. Among these. there Government and 14 Government Education Colleges. There are 51 Government and 34 Government Aided Polytechnic Colleges, 4 affiliated and 404 self financing Polytechnic Colleges, 14 self financing Hotel Management & Catering Technology Institutions. A total of 507 Polytechnic Colleges are governed by the of Technical Education. Directorate spectrum of institutions testifies to the range covered in terms of the dual effort to extend the reach of higher education as well as to meet the needs of society.

### 1.2 QUALITY ENHANCEMENT

The State Government's commitment to quality finds expression in innovative initiatives and allocation of funds for the same. Research has been encouraged through the 100% State-funded Research Grant Scheme of Rs.25.00 crore, conceived and executed by Tamil Nadu State Council for Higher Education. The climate for research has been further strengthened by the State Universities which have collaborated through their International Relation Centre (IRC) with more than 70 Countries for academic and research activities.

**1.2.1** MOOCs (Massive Open Online Courses) which facilitate knowledge expansion, have been incorporated into the curriculum by most of the State Universities. Keeping in view the students' aspirations to go beyond classroom teaching/learning, faculty have been trained to develop e-content in their respective disciplines. Students in the State are conversant with the use of e-content platforms such as MOODLE,

SWAYAM, e-PATHSALA and Apps like GIAN of Ministry of Human Resource Development (MHRD) and Institute of Entrepreneurship and Career Development (IECD). In addition to these ventures, online courses have been started at PG, M.Phil. and Ph.D. levels to provide opportunity for knowledge seekers.

**1.2.2** Skill development ranks high on the priorities of the State Government, Centre of Excellence has been established through Tamil Nadu Skill Development Corporation (TNSDC) and 5 technical skill development Institutes under PPP mode in collaboration with SIEMENS and Design Tech. Ltd at a cost of Rs.546.84 crore with the State's contribution being Rs. 54.68 crore. International exposure in experiential learning has been created through the Foreign Technical Training Programme. As per the Scheme, 100 students selected from Government Engineering Colleges and Anna University and 100 students selected from Government Polytechnic Colleges undergo 15 days training programme every year.

- **1.2.3** In the sphere of Technical Education, issues of quality and employability have been by TEOIP-III in addressed 7 Technical It is Institutions. proposed to organize Interaction Meet on Enhancing Technical Skills, Employability skills and Placement opportunities araduates for Engineering 5 regions at a cost of Rs. 1.00 crore under this scheme.
- **1.2.4** To ensure the covalence of courses having similar content, but different Equivalence Committee nomenclature, an functioning under the Chairmanship of the Principal Secretary to Government, Higher Education Department has been constituted. The committee resolves issues of apparent disparities and facilitates the student's progress towards further education and employment. Till date, 372 issues have been resolved through the equivalence committee meetings conducted by the Higher Education Department.

#### 1.3 INCLUSIVE EXPANSION

The establishment of new Institutions in rural areas has given a boost to development. In keeping with the demand, new courses have also been introduced. During 2017-2019, the Tamil Nadu Government established Government Arts and Science Colleges, 9 3 University Constituent Arts and Science Colleges, 3 Government Polytechnic Colleges, of 2 self financing conversion Sugar Mill Polytechnic Colleges into Government Polytechnic Colleges and started 705 new courses in Government Arts and Science Colleges.

Hon'ble Chief Minister on the floor of the Assembly under Rule 110 has announced that 41 University Constituent Colleges would be converted into Government Arts and Science Colleges. Accordingly, in the first phase 14 University Constituent Colleges have been converted into Government Arts and Science Colleges.

### 1.4 SPECIAL INITIATIVES TO REACH THE UNREACHED

The State specialises in grassroots initiatives such as creating scientific awareness among farmers, self help groups, interface between school and college education through science education in rural schools, livelihood skills through science and technology, capacity building for industrial needs, international science festivals, celebration of National Science and Mathematics day, STEM activities for school children and patenting through Tamil Nadu State Council for Science and Technology.

Higher Education in the State has reached out to prison inmates through the establishment of Mahatma Gandhi Community Colleges in 9 Prisons (including 3 Women's Prisons). Nearly 1,380 jail inmates have received skill related Diplomas and 51 undergoing training are through Tamil Nadu Open University. Infrastructure facilities are being improved in Institutions through State funding as well as Central Government RUSA funding.

### 1.5 SUSTAINABLE DEVELOPMENT GOALS (SDG)

Higher Education Department working in tandem with Planning, Development and Special Initiatives Department in relation to Sustainable Development Goals Working groups which were identified periodic meetings and the relevant data was submitted. The vision statement formulated for the State's SDG declares, "Ensure Inclusive, Equitable, Quality Education & Promote Life Long Opportunities for all". At present the Higher Education Department working group is working on the SDG Goal 4 and has submitted data about achievements from 2016-19. The State's GER (male, female, overall) and Gender Parity Index showcase a progressive trend and holds promise of sustainable development.

### 1.6 OTHER INITIATIVES

Uploading of Ph.D. thesis on Shodhganga is now the norm in all State Universities. Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) program projects were received by Tamil Nadu Teachers Education University for setting up of a Faculty Development Centre.

#### 1.7 Dr. A.P.J.ABDUL KALAM AWARD

Since 2015, the Higher Education Department instituted an annual award in memory of Dr.A.P.J Abdul Kalam, which includes a citation, cash award of Rs.5.00 lakh and a gold medal of 8 grams for individuals for their contribution to the development of science, humanities or the welfare of students.

1.8 Higher Education Department endeavours to work in sync with National goals and Global standards to achieve exponential growth. The modus operandi for achieving this involves identifying gaps, proposing target policies and implementing them better this climate where effectively. Τn human potential and well-being are core values, Tamil Nadu is destined to make great strides in development.

### BUDGET ESTIMATE FOR THE YEAR 2020 - 21

Under Demand No.20 Higher Education, the Total Outlay: Rs.5052.84 crore.

	Amount		
S.	Head of Department	Allotted	
No.	Head of Department	(Rs. in	
		crore)	
1.	Secretariat	6.15	
2.	Directorate of Collegiate	2825.51	
۷.	Education	2025.51	
3.	Directorate of Technical	1461.18	
٦.	Education	1401.10	
4.	Universities	609.80	
5.	Tamil Nadu Archives	15.41	
6.	Tamil Nadu State Council for	3.35	
0.	Science and Technology	5.55	
7.	Tamil Nadu Science and	5.07	
7.	Technology Centre	3.07	
8.	Science City	2.52	
9.	Tamil Nadu State Council for	123.64	
9.	Higher Education	123.04	
10.	Tamil Nadu State Council for	0.21	
10.	Technical Education	0.21	
	Total	5052.84	

#### 2. TECHNICAL EDUCATION

**2.1** To keep pace with changing industrial scenario, it is imperative to review and revise Technical Education. Relevance is of utmost importance in the sphere of technical education. To this end, the State Government is taking every possible initiative to explore new avenues and improve the standard of technical education.

The Government also promotes industryacademia interface to translate research finding into field application. This will pave the way for more internship training in industry for students. The technical Government ດf Tamil Nadu is very keen on improving the skill and knowledge of technical students sets providing various based training skill by programmes to make them employable.

The Directorate of Technical Education which was established on 14<sup>th</sup> October 1957, has played a key role in development of technical education in the State. This Directorate monitors and coordinates the development of Technical Education at Degree and Diploma levels, besides formulation of new courses, development of curricula, undertaking initiatives to develop research oriented activities etc. The Directorate is also conducting Government Technical Examinations in Type-writing, Short-hand, Accountancy and Certificate Course in Computer on Office Automation.

The State has a large number of Technical Institutions at Degree and Diploma level, as indicated below:

NUMBER OF TECHNICAL INSTITUTIONS IN TAMIL NADU (2019-20)				
	Degree level Colleges	Diploma level Colleges		
Category	Engineering and Architecture	Polytechnic Colleges	Hotel Management & Catering Institutes	Total
Government Colleges	10	51	-	61
Government Aided colleges	3	34	-	37
Self Financing Colleges	554	404	14	972
Affiliated type Colleges	-	4	-	4
Anna University Colleges	20	-	-	20
TOTAL	587	5	07	1094

### 2.2 ACHIEVEMENTS AND INITIATIVES

## 2.2.1 ESTABLISHMENT OF NEW TECHNICAL INSTITUTIONS DURING 2011-12 TO 2018-19

In order to provide access to Technical Education to the economically weaker sections of society, the Government of Tamil Nadu has

established 4 new Government Engineering Colleges and 21 new Government Polytechnic Colleges from the year 2011-12 to 2018-19.

A sum of Rs.770.45 crore was sanctioned towards the construction of buildings and a sum of Rs. 104.60 crore was allotted towards non-recurring expenditure for purchase of Equipment, Computers, Furniture, Library Books and e-journals and 2,853 teaching and non-teaching posts were created for all 25 new institutions.

# 2.2.2 CONSTRUCTION OF ADDITIONAL STUDENTS HOSTELS IN 6 GOVERNMENT ENGINEERING COLLEGES AT BARGUR, COIMBATORE, KARAIKUDI, SALEM, TIRUNELVELI AND VELLORE

The Government is taking every effort to improve the enrolment ratio in Technical Education and as part of this, an announcement was made by the Hon'ble Chief Minister in the Legislative Assembly under Rule 110 during the year 2018 for construction of additional Hostel Buildings in 6 Government Engineering Colleges at Bargur, Coimbatore, Karaikudi, Salem, Tirunelveli and Vellore. The Government has

sanctioned a sum of Rs.36.58 crore for construction of the 6 above mentioned hostel buildings.

The hostels in Karaikudi and Tirunelveli Engineering Colleges were completed and inaugurated by the Hon'ble Chief Minister on 30.01.2020 and in the remaining 4 places, the works will be completed shortly.

# 2.2.3 CONSTRUCTION OF VARIOUS BUILDINGS IN GOVERNMENT POLYTECHNIC COLLEGES AT PALACODE IN DHARMAPURI DISTRICT AND MOHANUR IN NAMAKKAL DISTRICT

As per the announcement made during the Budget Session 2019-20, the Government issued a G.O. for adminsitive sanction of Rs.37.07 crore (Rs.16.50 crore for Government Polytechnic College, Palacode and Rs.20.57 crore for Government Polytechnic College, Mohanur) for the construction of various buildings. The tender for the construction of the above works have been floated and the work will commence shortly.

## 2.2.4 ESTABLISHMENT OF FACULTY TRAINING CENTRE AT GOVERNMENT COLLEGE OF TECHNOLOGY, COIMBATORE

As per the announcement made during the Budget Session 2014-15, a Faculty Training Centre was established at Government College of Technology, Coimbatore under Self Sufficiency Scheme at a total cost of Rs.9.00 crore in order to provide training to fulfill the curriculum requirement, update their knowledge and enhance the teaching skills of the faculty.

During the year 2018-19, an announcement was made for creation of required posts for the above Faculty Training Centre. The amount of Rs.1.00 crore towards recurring expenditure and Rs.85.00 lakh towards non recurring expenditure was sanctioned and 3 teaching and 6 non-teaching posts were created during the year 2018-19.

## 2.2.5 FOREIGN TECHNICAL TRAINING PROGRAMME FOR 100 ENGINEERING STUDENTS FOR 15 DAYS

An announcement was made under Rule 110 of the Assembly, regarding "Foreign Technical Training Programme" for Students of Government Engineering Colleges with objective to enhance their Technical skills and update their knowledge in their respective fields Engineering. Under Scheme, this meritorious students from Government 92 Engineering Colleges and Anna University accompanied by 8 faculty members were deputed for the technical training programme and visited Spain, Taiwan, Japan and Malaysia, during the year 2016-17 and 99 meritorious students accompanied by 5 faculties visited Australia, Germany and Japan during the year 2017-18 for this programme. Every year an expenditure of Rs.1.50 crore is being incurred for this purpose.

## 2.2.6 FOREIGN TECHNICAL TRAINING PROGRAMME FOR 100 DIPLOMA STUDENTS FOR 15 DAYS

During the Budget Session 2019-20, an announcement was made regarding "Foreign Technical Training Programme" for 100 Diploma Students of Government Polytechnic Colleges to enhance the exposure of the students to the international scenario. The Government has sanctioned Rs.1.50 crore as recurring expenditure for implementation of the above scheme. The training programme has been temporarily postponed due to the Corona Virus all over the world, based on the Health Department directive.

## 2.3 INDIAN INSTITUTE OF INFORMATION TECHNOLOGY (IIIT), SRIRANGAM, TIRUCHIRAPPALLI DISTRICT

Indian Institute of Information Technology (IIIT), Srirangam, Tiruchirappalli District is an Autonomous Institute, set up by Government of India (MHRD), Government of Tamil Nadu and Industry Partners on a Not-for-profit Public Private Partnership (N-PPP) mode at a cost of Rs.128.00 crore with 50% contribution by

Government of India (Rs.64.00 crore), 35% by State Government (Rs.44.80 crore) and 15 % by Industry partners (Rs.19.20 crore) during the year 2013-14.

The six Industry Partners are 1) Navitas LLP (formerly TAKE Solutions Ltd), 2) M/s CTS (India) Private Ltd, 3) M/s Pratiksha Infosys Ltd, 4) M/s Tata Consultancy Services Ltd, 5) M/s Ramco Systems Chennai and 6) M/s ELCOT.

The Government has ordered for transfer of land measuring 56.37 acres to Indian Institute of Information Technology Society, Srirangam during 2017 and the Government has sanctioned Rs. 22.40 crore towards 50% of its share. The Government of India has appointed a full time Director for IIIT, Tiruchirappalli during March 2019 and functioning effectively.

### 2.4 DISTRIBUTION OF FREE TEXT BOOKS

In order to incentivize the students to join Polytechnic Colleges, free text books are being distributed to all the first year Diploma students of Government Polytechnic Colleges. Under the scheme, the books are being distributed for the

subjects of English, Engineering Physics, Engineering Chemistry and Engineering Mathematics as per the details given below:

Year	Beneficiaries	Amount sanctioned (Rs. in lakh)
2017-18	12,853	30.16
2018-19	14,606	24.80
2019-20	13,538	19.68
Total	40,997	74.64

## 2.5 FINANCIAL ASSISTANCE TO ECONOMICALLY WEAKER STUDENTS FROM CHIEF MINISTER'S PUBLIC RELIEF FUND

The Government is providing financial assistance to economically weaker students to enable them to pursue their B.E. / B.Tech. courses. The Government has enhanced the financial assistance from Rs.25,000/- to Rs.50,000/- per student from the year 2017-18 onwards. Students getting First Graduate Tuition fee waiver have also been made eligible to apply for this assistance. Data regarding beneficiaries is given below:

Year	Beneficiaries	Amount sanctioned (Rs. in lakh)
2017-18	6	3.00
2018-19	8	4.00
2019-20	17	12.00
Total	31	19.00

# 2.6 WAIVER OF TUITION FEE AND ISSUE OF FREE BUS PASS TO THE GOVERNMENT POLYTECHNIC COLLEGE STUDENTS

The schemes for waiver of tuition fees and issue of Free Bus Pass are being continued for the students of Government Polytechnic Colleges. Data regarding beneficiaries is given below:

Year	Beneficiaries
2017-18	46,707
2018-19	46,825
2019-20	47,223
Total	1,40,755

### 2.7 DISTRIBUTION OF FREE OF COST LAPTOPS

The Pioneer Scheme of distribution of free of cost laptops was introduced by the Government of Tamil Nadu during 2011-12 for the students of Government and Government Aided Schools and Colleges to enable them to acquire better computing skills and using e- resources. For the benefit of those students, who joined Government and Government Aided Polytechnic Colleges after passing 10<sup>th</sup> standard, free of cost laptops are distributed to them in the first year of study. The number of students who benefitted is given below:

Year	Beneficiaries
2011-12 to 2016-17	1,84,486
2017-18	9,841
2018-19	11,332
2019-20	11,553 (Eligible students identified)
Total	2,17,212

#### 2.8 POST MATRIC SCHOLARSHIP SCHEME

Matric Scholarship Scheme Post was introduced in the year 2011-12 with the objective of uplifting the socially disadvantaged students by providing them access to free higher education at all levels. Central and State Governments are jointly implementing this scheme for the students belonging to SC, ST and SC converted into Christianity. All compulsory and non-refundable fees fixed by the Fee Fixation Committee, are paid for the students admitted under the Government / Management Quota in Self Financing Institutions (including institutions). minority The Directorate οf Technical Education is coordinating with Adi Dravidar and Tribal Welfare Department for implementing the Scheme from the year 2013-14. The details of beneficiaries are as follows:

	Engineering College Students		Polytechnic College Students	
Year	Benefi- ciaries	Amount sanctioned (Rs. in crore)	Beneficiaries	Amount sanctioned (Rs. in crore)
2013-14 to 2017-18	5,44,327	3405.42	2,98,381	731.58
2018- 19	1,07,616	546.56	67,346	242.24
Total	6,51,943	3951.98	3,65,727	973.82

### 2.9 FIRST GENERATION GRADUATE TUITION FEE CONCESSION

The Government has taken several initiatives to enable students from all sections of society to enroll in professional courses. One such initiative is tuition fee concession to First Generation Graduate students admitted in Engineering Colleges in the State through Single Window Counselling. Data regarding beneficiaries is given below:

Year	Beneficiaries	Amount sanctioned (Rs. in crore)
2017-18	2,17,396	434.56
2018-19	1,91,268	402.69
2019-20 (as on 31-01-2020)	1,63,407	367.94
Total	5,72,071	1205.19

### 2.10 FACILITIES EXTENDED TO SRILANKAN TAMIL REFUGEE STUDENTS

In addition to students belonging to Tamil Nadu, the Sri Lankan Tamil refugee students staying in Tamil Nadu have been permitted to participate in the counselling for admission to B.E./ B.Tech and M.B.A./ M.C.A./ M.Tech. from the academic year 2011-12 onwards. Tuition fee concession granted to the First Generation Graduate students selected for professional courses through Single Window Counselling in Tamil Nadu, has been extended to the eligible Sri Lankan Tamil refugee students and a total of 290 students have benefitted from the academic year 2011-12 to 2019-20.

### 2.11 POST GRADUATE ASSISTANTSHIP TO THE POST GRADUATE STUDENTS STUDYING IN GOVERNMENT ENGINEERING COLLEGES

With a view to drawing bright students into teaching and research in Government Engineering Colleges, an announcement was made during the Budget Session 2017-18 to grant PG Assistantship to the Post Graduate students studying in Government Engineering Colleges @ Rs. 6,000 per month. The goal in view is the upscaling of postgraduate education, demand-driven Research & Development and Innovation. Data regarding the beneficiaries is as follows:

Year	Beneficiaries	Amount sanctioned (Rs. in lakh)
2017-18	593	426.96
2018-19	592	426.24
2019-20	597	429.84
Total	1,782	1283.04

# 2.12 ESTABLISHMENT OF CENTRE OF EXCELLENCE AND 5 TECHNICAL SKILL DEVELOPMENT INSTITUTES IN COLLABORATION WITH SIEMENS AND DESIGN TECH. LTD UNDER PPP

Centre of Excellence has been established Tamil Nadu through Skill Development Corporation (TNSDC) in Madras Institute of Technology (MIT) Campus of Anna University and the following 5 Technical Skill Development Institutes at Vellore, Kanchipuram, Villupuram, Chennai-Avadi and Chennai-Tharamani under Public Private Partnership (PPP) mode collaboration with M/s. SIEMENS and Design Tech. Ltd at an outlay of Rs.546.84 crore with Government contribution οf State Rs.54.68 crore:

- 1) Central Polytechnic College (Government), Tharamani, Chennai.
- 2) University College of Engineering, Anna University, Kancheepuram.
- 3) University College of Engineering, Anna University, Villupuram.

- 4) Murugappa Polytechnic College(Aided), Avadi, Chennai.
- 5) Thanthai Periyar Government Institute of Technology, Vellore.

The above institutes provide skill training in advanced technology to students studying in Engineering and Polytechnic colleges with the objective to increase the employability, train the students in tune with the latest industry requirements and bridge the gap between skills of students and skills expected by industries.

The Centre of Excellence at MIT, Chennai has 14 Laboratories whereas 5 Technical Skill Development Institutes at other places have 6 Laboratories in each Institute. In the above 6 centres, a total of 10,344 students have been given skill development training and another 1,738 students are undergoing skill development training.

## 2.13 e-LEARNING VIDEO MODULES UPLOADED IN YOUTUBE FOR THE BENEFIT OF DIPLOMA STUDENTS

e-learning videos which are prepared by experienced teachers are uploaded YouTube, play a vital role in facilitating learning among Diploma students, especially those from rural areas. The availability of e-content ensures process of learning that is flexible. An announcement was made in the Legislative Assembly on 15.06.2017 regarding production of e-Learning Video Modules for the Diploma students of Government Polytechnic Colleges. Accordingly, the Government Rs.58.00 lakh towards the cost of preparation of 720 e-learning video modules at Rs. 8000/each. 720 video modules have been prepared through Educational Multimedia Research Centre (EMMRC) of Anna University and uploaded on YouTube.

### 2.14 ESTABLISHMENT OF VIDEO CONFERENCING CENTRE AT THE DIRECTORATE OF TECHNICAL EDUCATION

As per the announcement, a Video Conferencing Centre at Directorate of Technical

Education has been established at a cost of Rs.1.19 crore, to meet the growing educational requirements for expertise in specialized subjects. Lectures can be delivered through video conferencing by eminent professionals in various engineering disciplines for the benefit of students in Tamil Nadu. As on date, 120 video conferencing meetings were conducted.

# 2.15 TRAINING PROGRAMME FOR ENHANCING THE ENGLISH TEACHING SKILLS FOR ENGLISH TEACHERS IN ENGINEERING AND POLYTECHNIC COLLEGES

As per the announcement made during the Budget Session 2018-19, Training Programme for enhancing the English skills for 2000 English Engineering Teachers in and Polytechnic Colleges is being conducted in various places in Tamil Nadu at a cost of Rs.60.00 lakh in order to provide quality English language teaching to the Engineering Polytechnic students of and As on date, 760 English Teachers have participated in the English Teacher Training Programme conducted in 18 Centres in Tamil Nadu.

# 2.16 TAMIL NADU ENGINEERING ADMISSION (TNEA) THROUGH SINGLE WINDOW ONLINE COUNSELLING CONDUCTED BY DIRECTORATE OF TECHNICAL EDUCATION FROM THE YEAR 2019-20

order to improve the co-ordination between the Tamil Nadu Engineering Admissions Facilitation Centers (TFCs) at District level and Nodal agency, the Government notified that the of Technical Education is Director appropriate authority for admission to every Government seat in Engineering Institutions from the year 2019-20. Online Registration for Engineering Admission for the year 2019-20 was conducted successfully by the Directorate of Technical Education. A total of 1.33.116 students registered their applications through online. Out of this, 1,03,150 are found to be eligible for participation in the counselling.

In order to guide the students in submitting online applications and for online verification of certificates, 46 Tamil Nadu Engineering Admission Facilitation Centres (TFCs) have been setup covering all the 32 Districts in the State

with atleast 1 centre in each District to assist the students.

The Government Quota (in percentage) for the total seats in various categories of institutions / courses under Unified Single Window Admission system is furnished below:

Engineering Colleges	Details of all courses	Government Quota (Percentage)
Government Engineering Colleges	All courses	100
Government Aided	Government Aided Courses	100
Engineering Colleges	Self-Supporting Courses	70
Self-Financing	Non-minority	65
Engineering Colleges	Minority	50

Admission to M.B.A. / M.C.A. Degree Programmes for the academic year 2019–20 was done under the Single Window Admission process at Government College of Technology, Coimbatore. With respect of M.E. / M.Tech. / M.Arch. / M.Plan. Degree Programmes, the admission was done by Anna University. These admissions were done based on the marks obtained in Tamil Nadu Common Entrance Test

2019 (TANCET 2019) conducted by Anna University.

### 2.17 TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME(TEQIP)

TEQIP is a World Bank Funded Project being implemented by Ministry of Human Development (MHRD), Resource Government of India. The First Phase (TEQIP-I) of the Programme implemented in 11 Techical Institutions including 5 Government Engineering Colleges, 3 Government Polytechnic Colleges and 3 Anna University Colleges in Tamil Nadu during the period, April 2004 to June 2009. A total Rs. 96.50 crore was allotted under this programme for upgradation infrastructure facilities in these 11 colleges. The Second Phase (TEQIP-II) of Programme was implemented in 9 institutions including 4 Government, 3 Government Aided Engineering Colleges University Department / 2 Constituent Colleges and a sum of Rs. 142.12 crore was allotted for various

developmental activities in these institutions.

The following 7 Government and Government Aided Technical Institutions which performed well in TEQIP Phase-II, have been selected under TEQIP-III as Mentor Institutions to guide the following 8 Mentee institutions in other States through a twinning arrangement:

SI.No.	Mentor Institutions	Mentee Institutions
1.	Government College of Technology,	Government Engineering College, Jagdalpur, Chhattisgarh
	Coimbatore	National Institute of Technology, Arunachal Pradesh
2.	Government College of Engineering, Salem	Government Engineering College, Raipur, Chhattisgarh
3.	Alagappa Chettiar Government College of Engineering and Technology, Karaikudi	University College of Engineering and Technology (UCET), Vinoba Bhave University, Hazaribag, Jharkhand

4.	Thiagarajar College of Engineering, Madurai	Hacourt Buttler Technical University (Formerly HBTI), Kanpur, Uttar Pradesh
5.	PSG College of Technology, Coimbatore	Assam Engineering College, Kamrup, Assam
6.	Coimbatore Institute of Technology, Coimbatore	MBM Engineering College, Jodhpur, Rajasthan
7.	Government College of Engineering, Bargur	Bineswar Brahma Engineering College, Kokrajhar, Assam.

The above 7 Mentor Institutions are entitled to receive a grant of Rs. 7.00 crore for each institution and each Mentee Institution is eligible to get a grant of Rs. 15.00 crore under TEQIP-III during the Project period 2017-18 to 2020-21. Out of the total grant of Rs. 53.40 crore received for the 7 Mentor Institutions in Tamil Nadu, a sum of Rs.42.18 crore has been utilized as on date.

Internship Training, GATE coaching and Employability Skill Training have been provided free of cost to all the students studying in TEQIP-III institutions from the TEQIP fund. Four

Government and Government Aided TEQIP-III institutions in Tamil Nadu have achieved All India based NIRF (National Institute of Ranking Framework) Ranking within 100 during the years 2018 and 2019. Around 44 numbers of Research proposals were submitted by the Mentor Institutions in collaboration with the respective Mentee Institutions. Research Assistantship is given to full time Ph.D scholars in all TEQIP-III institutions from the TEQIP fund.

#### 2.18 APPOINTMENT OF TEACHING STAFF

Teachers play a vital role in nurturing the students and bringing out their potential for improving themselves with emerging technological knowledge. With an aim to achieve this, the Government has taken steps to recruit competent faculty through Teachers Recruitment Board. Because of the Government's initiative, Assistant Professors 342 in Government Engineering Colleges and 137 Lecturers in Government Polytechnic Colleges have been appointed in the last seven years through

Teachers Recruitment Board. Action is being taken to fill up 1,060 Lecturer posts in Government Polytechnic Colleges through Teachers Recruitment Board.

#### 2.19 DEPLOYMENT OF SURPLUS TEACHING AND NON-TEACHING STAFF OF ANNAMALAI UNIVERSITY IN OTHER GOVERNMENT COLLEGES

As per the direction of the Government, 378 surplus teaching staff of Annamalai University i.e. 144 Assistant Professors in Government Engineering Colleges and 234 Lecturers and 40 Physical Directors in Government Polytechnic Colleges and 850 surplus non-teaching staff of Annamalai University have been deployed and in total 1,268 employees have been deployed in Engineering Government Government Polytechnic Colleges and PWD Technical Education Circle and Divisions for a period of three years on agreement basis.

# 2.20 INTERACTION MEET ON ENHANCING SKILLS, EMPLOYABILITY & PLACEMENT OPPORTUNITIES FOR ENGINEERING GRADUATES

Taking cognizance of the demand supply ratio, where the number of students graduating from Engineering Colleges is high and some are not placed in jobs related to their field, a meeting of stakeholders was organized on 10.09.2018 in the Secretariat under the Chairmanship of Hon'ble Chief Minister, to study the expectations and challenges of the modern enhance the industries and placement to opportunities among the engineering graduates studying in various engineering colleges across the State of Tamil Nadu.

In continuation of the above, an announcement was made during the Budget Session 2019-20, regarding organizing an Interaction Meet on "Enhancing Technical Skill, Employability Skills and Placement Opportunities for Engineering Graduates at Coimbatore, Salem, Tiruchirappalli, Madurai and Tirunelveli Region". Based on the above announcement, the Government issued sanction order for

Rs.1.00 crore for implementation of the above project. In this connection, core committee meeting was conducted and the action plan has been formulated to organize the Interaction Meeting.

# 2.21 INVESTMENTS IN TECHNICAL EDUCATION AS PER MoU DURING GLOBAL INVESTORS' MEET 2019 (GIM 2019)

In order to maintain the State's position as most preferred of the investment destinations, the State Government organized a Global Investors' Meet on 23<sup>rd</sup> and 24<sup>th</sup> January 2019 at Chennai. This Meet is a focused endeavour to realize the State's vision of inclusive growth through investment inflows, employment generation and environmentally sustainable long term projects. A total of 28 Self-Financing Engineering Colleges/Polytechnic Colleges and one Deemed to be University have signed MoUs during the above meet promising to make an investment of Rs.339.43 crore. It is expected that around 3,275 persons will be benefitted through Direct and Indirect employment, besides increasing the potentiality of raising the Gross Enrolment Ratio.

# 2.22 TRAINING PROGRAMME FOR PRINCIPALS AND PLACEMENT OFFICERS OF ENGINEERING AND POLYTECHNIC COLLEGES

Τn order to facilitate placement opportunities for the students, a one-day training programme along with a field visit to IIT Research Park, MIT - Siemens Skill Training organized for Principals Centre was Officers Engineering Placement of and Polytechnic Colleges from 26.08.2019 25.09.2019. Nearly, 2000 members including Principals and Placement Officers participated in the training programme.

#### 3. COLLEGIATE EDUCATION

Directorate of Collegiate Education since its inception in 1965 has taken various steps for development in the field of Higher Education in keeping with modern trends. The Higher Education scenario in Tamil Nadu has undergone a remarkable change in recent years on account of the positive measures introduced by the Government. At present, there are 816 Arts and Science Colleges, 719 Colleges of Education, 4 Oriental Colleges, 11 Physical Education Colleges and 2 Schools of Social Work and 27 University Constituent Arts and Science Colleges totaling 1,579 Colleges functioning under the Directorate of Collegiate Education.

Type of Colleges	Government Colleges	Government Aided Colleges	Self Financing Colleges	Total
Arts and Science Colleges	106	139	571	816
Physical Education Colleges	-	3	8	11
Oriental Colleges	-	4	-	4
School of Social Work	-	2	-	2
Colleges of Education	7	14	698	719
University Constituent Colleges	27	-	-	27
Total	140	162	1,277	1,579

# 3.1 ESTABLISHMENT OF NEW GOVERNMENT ARTS AND SCIENCE COLLEGES

The Government has established 18 new Government Arts and Science Colleges from 2013 – 14 to 2015-16. Further, the Government

has established 11 more new Government Arts and Science Colleges from the year 2016-17 to 2017-18. The Hon'ble Deputy Chief Minister during the Budget Speech for the year 2019-20, has announced that an Arts and Science College in the name of former President of India Dr.APJ Abdul Kalam will be established in Rameswaram. Accordingly, the College has been started in the year 2019-20.

Academic	No. of New	Place and District
Year	Government	
Teal	Arts and	
	Science	
	Colleges	
		Mettupalayam - Coimbatore
2016-17	3	Perumbakkam - Kancheepuram
2010-17		Avinashi - Tiruppur
	8	Kattumannar kovil - Cuddalore
		Kudavasal - Thiruvarur
		Villupuram (Women) -
2017-18		Villupuram
		Sirkazhi - Nagapattinam
		Thittamalai - Erode
		Madhanur - Vellore
		Palladam - Tiruppur
		Palacode - Dharmapuri
2019-20	1	Rameswaram - Ramanathapuram

## 3.2 INTRODUCTION OF NEW COURSES IN GOVERNMENT COLLEGES

To enable the students to pursue higher education, the Government has introduced 961 new courses and sanctioned 1,934 posts of Assistant Professor from the year 2011-12 to 2016-17. During the years from 2017-18 to 2019-20, a total number of 705 new courses were introduced and 960 Assistant Professor posts were sanctioned by the Government.

## 3.3 APPOINTMENT/DEPLOYMENT OF ASSISTANT PROFESSRS IN GOVERNMENT COLLEGES

A total of 1,093 Assistant Professors have been recruited through Teachers Recruitment Board from the year 2011-12 to 2019-20 and 343 Non-teaching staff have been recruited through Tamil Nadu Public Service Commission. Further, the Teachers Recruitment Board is in the process of recruiting 2,331 Assistant Professors in Government Arts and Science Colleges.

In order to productively utilize the excess staff (both Teaching and Non-Teaching) available at Annamalai University, 698 Assistant

Professors and 100 Non-Teaching Staff have been redeployed to various Government Colleges on agreement basis for three years. During this year 39 Assistant Professors and 25 Assistant Programmers have been redeployed.

## 3.4 GUEST LECTURERS IN GOVERNMENT COLLEGES

The Shift System introduced in the Government Arts and Science Colleges by the Government is being continued every year. The Government has sanctioned 2,423 posts of Guest lecturer under Shift – I system during the academic year 2019-20 till these vacancies are filled through Teachers Recruitment Board. During the academic year 2019-20, 1,661 post of Guest lecturers have been sanctioned in 59 Government Arts and Science Colleges under Shift – II system.

#### 3.5 FREE EDUCATION

Free Education is imparted to the students studying in Government Arts and Science Colleges upto Post Graduate level and in Government Aided Colleges upto Under

Graduate Level. The beneficiaries are as follows:

 2017-18
 :
 4,95,578

 2018-19
 :
 4,96,599

 2019-20
 :
 4,97,619

 Total
 :
 14,89,796

### 3.6 FREE BUS PASS TO THE COLLEGE STUDENTS

Free Bus Pass scheme for students studying in Government Arts and Science Colleges and Colleges of Education is being continued every year. The number of students benefited under the scheme are as follows:

2017-18 : 1,80,496 2018-19 : 1,81,398 2019-20 : 1,88,714 **Total** : **5,50,608** 

#### 3.7 JOB FAIR

Job Fair has been conducted in the Government / Government Aided Colleges in the regions of the Directorate of Collegiate Education. Such fairs have brought many leading companies to recruit students. Details are as follows:

 2017-18
 : 6,825

 2018-19
 : 6,965

 2019-20
 : 6,393

 Total
 : 20,183

### 3.8 STIPEND FOR TAMIL MEDIUM STUDENTS

In order to encourage the students studying in Tamil Medium, a scheme of granting stipend is being continued every year. During the year 2018-19, the Government has enhanced Tamil Medium student's stipend from Rs.400/- to Rs.900/- per annum. During the year 2018-19, 40,367 students have been benefitted. In 2019-20 the Government has sanctioned a sum of Rs.4.24 crore to benefit 47,072 students.

#### 3.9 CONDUCT OF SPECIAL COACHING

The students belonging to SC/ST and MBC communities, studying in Government Arts and Science Colleges hailing from rural areas initially faced difficulties to cope with English, Mathematics and Science subjects: to address that Special Coaching is given after class hours and also during weekends. During the academic

year 2019-20, the Government has allotted Rs.2.00 lakh for this scheme through which 8,818 students benefitted. The total number of students benefitted are as follows:

 2017-18
 : 9,695

 2018-19
 : 12,045

 2019-20
 : 8,818

 Total
 : 30558

## 3.10 STIPEND TO RESEARCH (Ph.D) SCHOLARS

Under the scheme, a stipend is provided to students undergoing research in various subjects in Government and Government Aided Colleges. During the year 2018-19, the Government has enhanced the Research Scholar Stipend from Rs.36,000/- per annum to Rs.60,000/- per annum. The details of beneficiaries are as follows:

Academic Year	Expenditure (Rs. in lakh)	Number of Students benefitted
2017-18	51.12	142
2018-19	60.48	128
2019-20	85.20	142
Total	196.80	412

#### 3.11 PURCHASE OF DUSTBINS

In order to keep college campuses clean and litter free, the Government has sanctioned Rs.48.79 lakh for the purchase of dustbins for 62 Government Arts and Science Colleges, 7 Colleges of Education and 24 University Constituent Arts and Science Colleges during the year 2017-18. Dustbins for the colleges have been distributed during the year 2018-19.

## 3.12 PURCHASE OF COMPUTERS AND ACCESSORIES

In accordance with the announcement made in the Assembly that 50 computers and 2 UPS would be procured for each college for the welfare of the students, the Government sanctioned Rs.8.61 crore for the purchase of 1,550 Computers and 62 UPS in the first phase (for 31 colleges) during the year 2018-19 and it was supplied to the Colleges through ELCOT. For the remaining 31 Colleges, 1,550 Computers and 62 UPS will be supplied this year.

## 3.13 CONVERSION OF UNIVERSITY CONSTITUENT COLLEGES INTO GOVERNMENT COLLEGES

The Hon'ble Chief Minister has announced on 01.06.2018 in the Legislative Assembly that 41 University Constituent Colleges will be converted into Government Arts and Science Colleges at a cost of Rs.152.20 crore.

In the first phase, 14 Constituent Colleges which have been started from 1995-96 to 2010-11 were converted into Government Colleges. A total number of 819 teaching Posts and 238 non-teaching posts were sanctioned to these colleges and started functioning as Government Colleges from the academic year 2019-20.

# 3.14 PURCHASE OF FURNITURE TO GOVERNMENT ARTS AND SCIENCE COLLEGES

30 New Government Arts and Science Colleges have been started after the year 2012 and many new courses have been introduced in Government Arts and Science Colleges every year and thereby the requirement of furniture

has increased. In order to meet the requirement, the Government has sanctioned Rs.4.93 crore for purchasing benches and desks for 25 Government Arts and Science Colleges. Efforts have been taken to purchase the furniture through TANSI.

#### 3.15 CONSTRUCTION OF NEW BUILDINGS

#### Buildings for Newly started Government Arts and Science Colleges.

The Government has allotted Rs.221.13 crore for the construction of buildings for 29 new Government Arts and Science Colleges started during the years 2013-14 to 2017-18. Among these colleges, construction work for buildings for Government Arts and Science Colleges at Hosur, Komarapalayam, Kangeyam, Uthiramerur, Peravurani, Sivakasi, Karimangalam, Kovilpatti, Karambakudi, Veppanthattai, Manalmedu, Kadaladi, Mudhukulathur, Dr.RadhaKrishnan Nagar (Chennai), Nagercoil, Sathiyamangalam, Thiruvadanai, Veerapandi, Avinasi, Perumbakkam, Mettupalayam, Palacode, Seerkazhi, Palladam and Villupuram (Women) have been completed and have started functioning.

The construction of buildings for Government Arts and Science Colleges at Thittamalai and Madhanur is in progress and will be completed this year. Suitable land has been identified for the remaining colleges in Kudavasal and Kattumannarkoil.

#### ii. Buildings for Regional Offices of Directorate of Collegiate Education

The Government has sanctioned Rs.4.59 crore for the construction of building for the Regional Joint Director of Collegiate Education offices at Tiruchirappalli, Madurai and Tirunelveli. The construction work was completed and started functioning.

The Government has allotted a sum of Rs.1.69 crore for the construction of permanent building to the Office of the Regional Joint Director of Collegiate Education, Dharmapuri Region and a sum of Rs.1.86 crore for the construction of permanent building for the office of the Regional Joint Director of Collegiate Education, Thanjavur Region. The Government

has sanctioned a sum of Rs. 1.54 crore towards the construction of building for Joint Directorate of Collegiate Education, Vellore Region. The construction work for buildings for the Joint Directorate in Dharmapuri, Thanjavur and Vellore region have been completed and inaugurated by the Hon'ble Chief Minister. The Offices are now functioning in the new buildings.

#### iii. Construction of Boys Hostel and Commemorative Arch for Presidency College, Chennai

The Government has sanctioned Rs.10.00 crore for the construction of a new Hostel building for boys in the campus of College, Chennai Presidency the and construction work has been completed and put in Work for construction of to use. Commemorative Arch on completion of 175<sup>th</sup> Year of the College was taken up at a cost of Rs.40.00 lakh and the work has been completed and it was inaugurated by the Hon'ble Chief Minister.

## iv. Renovation and Maintenance of Heritage Buildings

People of Tamil Nadu attach a lot of importance to education. Some of the oldest Institutions of higher learning were established in Tamil Nadu which was the then part of Madras Presidency. The buildings of these institutions have lot of heritage value. The Hon'ble Deputy Chief Minister had announced in the Budget the Speech Heritage Buildings that Government Arts College, Kumbakonam, Victoria Hostel of Presidency College, Chennai and Queen Mary's College, Chennai will be renovated at a cost of Rs.26.00 crore. Accordingly, Government has sanctioned the following works for preservation of Heritage buildings:

- A sum of Rs.3.20 crore for the maintenance of Victoria Hostel located in Presidency College campus, Chennai and the work has been completed.
- A sum of Rs.6.04 crore towards the maintenance of heritage buildings for

Queen Mary's College, Chennai and the works are in progress.

 A sum of Rs.14.80 crore towards the maintenance of heritage buildings and repair works for Government Arts College (Autonomous), Kumbakonam and the works are in progress.

# 3.16 BHARAT RATNA PURATCHI THALAIVAR DR.M.G.R. CENTENARY CELEBRATION BUILDINGS

order to commemorate the Birth Centenary Celebration of the late Hon'ble Chief Minister Bharat Ratna Puratchi Thalaivar Dr. M.G.R. the Hon'ble Chief Minister has announced on the floor of Assembly under Rule 110 of Tamil Nadu Legislative Assembly that new buildings will be constructed for Government Arts and Science Colleges at a cost of Rs.210.00 crore. These buildings will be called as "Bharat Ratna Puratchi Thalaivar Dr. M.G.R. Centenary Buildings". Accordingly, Government has sanctioned a sum of Rs.210.00 crore for 68 Government Arts and Science Colleges. Out of which, building works for 64 Colleges have been completed and inaugurated by Hon'ble Chief Minister. The building works for 4 Colleges are in progress.

#### 3.17 CONSTRUCTION OF COMPOUND WALL

As per the announcement made in the Assembly, an amount of Rs.37.52 crore has been sanctioned for construction of 55,173 metre compound wall to 60 Government Arts and Science Colleges and 2 Colleges of Education and all the works have been started and will be completed this year.

#### 3.18 IMPROVING BASIC AMENITIES

For the construction of new toilet blocks in the main building of Sethupathy Government Arts and Science College, Ramanathapuram, Rs.2.08 crore has been sanctioned for the year 2018-19 and the work is in progress.

## 3.19 CONSTRUCTION OF AUDITORIUM AND COMPOUND WALL

During Puratchi Thalaivar Dr. M.G.R Centenary Celebration held at Sivagangai District, the Hon'ble Chief Minister had announced that an Auditorium and Compound Wall for Raja Doraisingam Government Arts College, Sivagangai will be constructed at a cost of Rs.3.93 crore. Accordingly, the Government has accorded administrative and financial sanction for Rs.2.89 crore for construction of Auditorium and Rs.1.04 crore for construction of Compound Wall. The construction work is nearing completion and Compound Wall is being constructed.

# 3.20 CONSTRUCTION OF ADDITIONAL CLASS ROOMS AND TOILET BLOCK TO GOVERNMENT COLLEGES

The Government has sanctioned Rs.2.62 crore for the construction of 12 additional class rooms, 4 staff rooms and 2 Toilet Blocks in Government Arts and Science College,

Kovilpatti. The construction works has been completed and the buildings were inaugurated by the Hon'ble Chief Minister. Likewise, Rs.86.50 lakh has been sanctioned for the construction of 7 additional class rooms at Government Arts and Science College, Veerapandi. The Construction work is in Progress.

# 3.21 DEVELOPMENT OF INFRASTRUCTURE FACILITIES IN THE GOVERNMENT ARTS AND SCIENCE COLLEGES AFFECTED BY GAJA CYCLONE

In order to carry out the mending works in 14 Government Arts and Science Colleges and Colleges of Education affected by Gaja Cyclone Rs. 1.99 crore has been sanctioned for the year 2019-20. The mending works are being carried out in the cyclone affected colleges.

# 3.22 CONSTRUCTION OF INTEGRATED OFFICE BUILDINGS FOR DIRECTORATE OF COLLEGIATE EDUCATION AND REGIONAL JOINT DIRECTORATE OF COLLEGIATE EDUCATION, CHENNAI REGION.

As per the announcement made by the Hon'ble Chief Minister in the Legislative Assembly under Rule 110, Rs.10.00 crore has been released as administrative sanction and a sum of Rs.3.00 crore was sanctioned towards the construction of an integrated building in a total area of 3534 Sq.mt. containing the administrative building for the Directorate of Collegiate Education and the office building for the Regional Joint Director of Collegiate Education, Chennai Region at IASE Campus Saidapet, Chennai. The construction works have been commenced.

# 3.23 CONSTRUCTION OF GIRLS HOSTEL IN GOVERNMENT ARTS AND SCIENCE COLLEGE, KOVILPATTI

The Government has sanctioned Rs.5.10 crore towards the construction of girls

hostel in Government Arts and Science College, Kovilpatti for the year 2019-20.

# 3.24 CONSTRUCTION AND RENOVATION OF HOSTEL BUILDING IN PRESIDENCY COLLEGE, CHENNAI

For the construction and renovation of women's hostel building in Presidency College, Chennai, Rs. 8.22 crore has been released for the year 2019-20 and work is in progress.

## 3.25 CONSTRUCTION OF NEW CLASS ROOMS AND LABORATORIES

The requirement of 331 new class rooms and 50 laboratories due to the introduction of new courses in the 54 newly started Government Arts and Science Colleges has been met with an administrative sanction of Rs. 79.63 crore and Rs.40.00 crore has been sanctioned during the year 2019-20 and construction work is in progress.

# 3.26 TO EQUIP INFRASTRUCTURE FACILITIES IN GOVERNMENT ARTS AND SCIENCE COLLEGES

The Government has accorded sanction for a sum of Rs. 51.07 crore towards carrying out

the infrastructure facilities in 10 Government Arts and Science Colleges for applying NAAC Accreditation and Rs. 2.93 crore towards purchase of furniture and equipments.

## 3.27 TO CARRY OUT REPAIR WORKS IN 92 GOVERNMENT COLLEGES

The Hon'ble Chief Minister has made an announcement on the floor of Assembly under Rule 110 that special grants of Rs.116.00 crore at the rate of Rs.58.00 crore per year for two years would be provided for 92 Government Science Colleges for continuing Arts and Accordingly, maintenance works. the has accorded administrative Government sanction of Rs.116.00 crore and sanctioned Rs.58.00 crore to execute maintenance works in 45 Government Colleges for the year 2019-20.

## 3.28 NATIONAL INSTITUTIONAL RANKING FRAMEWORK (NIRF)

The State Government encourages the Arts and Science College to undergo the process of accreditation and assessment through NAAC (National Assessment and Accreditation Council)

ranking through NIRF (National Institutional Ranking Framework). Due to the continuous effort of the Colleges in Tamil Nadu, 35 Arts and Science Colleges have found place within top 100 Institutions in the Nation. Presidency College, Chennai has secured 3<sup>rd</sup> rank in the nationwide NIRF ranking.

#### 3.29 NATIONAL SERVICE SCHEME (N.S.S)

National Service Scheme is being implemented successfully in higher educational Institutions in Tamil Nadu since September, 1969. This scheme is being implemented in Universities, Colleges and various Technical Education Institutions. During the financial year 2019-20, Government of India has allotted an amount of Rs.13.43 crore for this scheme. At present, National Service Scheme is functioning with 3,90,700 student volunteers in various educational Institutions.

#### **3.30 SPORTS**

Sports is an integral part of education in the Government Arts and Science Colleges in Tamil Nadu. The students have excelled in sports (in athletics and field events) winning prizes and medals at the National level-124, State level-271 and District level-689 during the year 2019-20.

#### 3.31 e-GOVERNANCE

Hon'ble Minister for Higher Education during the Higher Education Demand on 02.07.2019 has announced that implementation of 'e-Governance' will be introduced in Directorate of Collegiate Education at an estimated cost of Rs.1.00 crore to effectively administer the human resource and financial management of more than 1,500 Arts and Science Colleges and Colleges of Education. Accordingly, Government have sanctioned a sum of Rs.99.80 lakh.

#### 4. UNIVERSITIES

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

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

#### **4.1 UNIVERSITY OF MADRAS**

- **4.1.1** University of Madras was established in 1857. As an affiliating University, it had its jurisdiction over the then Madras Presidency, earning the reputation of 'mother of all South Indian Universities'. After the establishment of new State Universities, its jurisdiction encompasses four Districts Chennai, Thiruvallur, Chengalpattu and Kanchipuram in Tamil Nadu.
- **4.1.2** For many years since its inception, the University of Madras affiliated all types of colleges such as Arts, Sciences, Technology, Medicine, Education and many more; at present, it affiliates only Arts, Commerce, Management and Science Colleges and Research Institutions.
- **4.1.3** The University of Madras has been actively engaged in research and post-graduate teaching since 1900. It is an acclaimed University in the field of Arts, Science and Education and has 87 teaching and research departments and 121 affiliated colleges. It has the distinction of maintaining high accreditations

and has been placed in 'A' Grade by the National Assessment and Accreditation Council (NAAC) in 2014 with a score 3.32 / 4.00. It has also been recognized by the University Grants Commission as 'University with Potential for (UGC) Excellence' and also conferred as "Category II" status under Graded Autonomy. It also holds the credit for being the first to introduce the concept of autonomous colleges within the University system. Presently, 23 autonomous colleges are affiliated to the University of Madras, some of which have been identified by the UGC as "Colleges with the Potential for Excellence". The University has been placed at 20th position among the top Universities of the Country in the National Institutional Ranking Framework 2019 (NIRF) and it is one among the 3 Universities in the State.

**4.1.4** The University set up the Institute of Distance Education (IDE) in 1981 to provide wider access to higher education. It presently courses, 20 offers 15 UG PG courses, 19 Diploma/PG Diploma courses and 7 Certificate courses and all the courses are recognized by Distance Education Bureau [DEB],

- UGC. The Distance Education Stream of University of Madras has 70,452 students (Male–33,252, Female–37,189 and Transgender 11).
- **4.1.5** The University has on campus student enrollment of 3360 (Male 1401, Female 1959) in PG Programmes and 168 (Male 62, Female-106) Students enrolled in M.Phil. Programme and 124 students registered for Ph.D. Programme. The University has two constituent colleges at Nemmeli and Thiruvottiyur and the student strength is 1672.
- **4.1.6** The University of Madras has signed 14 Memorandum of Understandings with various foreign Universities during the past three years.
- **4.1.7** The University of Madras has been selected by the MHRD, Government of India for funding of Rs. 50.00 Crore under the scheme RUSA 2.0. The University has initiated the process to establish 'Entrepreneurship and Career Hub' under this scheme with the allocation of Rs.7.50 crore.
- **4.1.8** The University is also recognized by the National Council for Teachers Education

[NCTE] to offer B.Ed., Degree course through the Institute of Distance Education. The University will offer B.Ed., Degree course through Institute of Distance Education from the academic year 2020-21.

- **4.1.9** The University has completed a massive exercise of changing the syllabi of almost all major under-graduate and post-graduate programmes. As a result of this mammoth exercise, from the next academic year, students will have new course contents.
- (1) Syllabus for each paper is designed based on the model of 'Learning Outcome Based Curriculum Design' given by UGC.
- (2) Skill-based courses such as Entrepreneurship small business, Innovation and startups are designed for students of Commerce and related subjects to be introduced.

- (3) New Courses on Data Science, Artificial Intilligence, Internet of Things (IoT) are also to be conducted from the year 2020-21.
- **4.1.10** The University has established the "Dr. M.G.R. Centenary Centre for Social Development Studies" with the assent of the Hon'ble Governor of Tamil Nadu and an amount of Rs.5.00 crore was granted by the State Government during the 160<sup>th</sup> year Post Centenary Diamond Jubilee Celebration of the University of Madras.
- **4.1.11** The University of Madras is in the 3<sup>rd</sup> position out of the 388 Universities in uploading Ph.D. thesis in the Shodhganga, the electronic depository of the INFLIBNET of UGC and so far the University has uploaded 8,911 theses.

- **4.1.12** The University of Madras has installed the Solar Energy system in all its newly constructed buildings. Around 45 KVA solar energy is being generated in this system. This facility has been installed in the Chepauk and Guindy Women's Hostels as well.
- **4.1.13** The University of Madras has so far uploaded 30,257-degree certificates under the process of uploading all the degree certificates and other academic documents in the National Academic Depository (NAD).

## 4.2 Madurai Kamaraj University

- **4.2.1** Madurai University was established in the year 1965 and subsequently renamed in 1979 as Madurai Kamaraj University to acknowledge the immense contribution of Bharat Ratna Thiru K. Kamaraj. Madurai Kamaraj University was also conferred with the status of "University with Potential for Excellence (UPE)" by the University Grants Commission (UGC) in 2005 and is now striving to achieve the status of "Institute of Eminence". The University is functioning in a sprawling 528 acre campus.
- **4.2.2** The University has 77 Departments under 20 Schools. It governs 90 affiliated Colleges, 5 evening Colleges, 4 constituent Colleges, 1 Madurai Kamaraj University College and 14 approved Institutions spread over 4 Districts namely Madurai, Theni, Virudhunagar and Dindigul with 1,56,590 students on roll. Besides, Madurai Kamaraj University has a Distance Education Directorate with an enrolment of about 75,000 students. The University has completed its Golden Jubilee in the year 2016. The prestigious recognitions received by the University Faculty

Members include four Shanti Swarup Bhatnagar awards, eight Fellow of Indian National Science Acadmy, eight Fellow of National Academy of Sciences, 11 Fellow of Indian Academy of Sciences, two Fellow of The World Academy of Sciences, a Senior Spallanzani Fellow, two Raja Ramanna Fellowship (DAE-RRF) and 16 Tamil Nadu Scientist Awards. Four faculty members were awarded with Basic Science Research Faculty (BSR) by UGC. The University Departments are provided with 1 Gbps Internet connectivity. The whole MKU campus is provided with Wi-Fi connectivity and became the smart campus.

- **4.2.3** The University Schools / Departments offering 44 Post Graduate, 38 M.Phil. 45 Ph.D. and 13 Certificate, Diploma and PG Diploma Programmes.
- **4.2.4** In the year 2019 NIRF Ranking, Madurai Kamaraj University has been elevated to 45<sup>th</sup> Rank from 54<sup>th</sup> Rank in 2018 by the Ministry of Human Resource Development (MHRD), Government of India. In the overall category, among 3,127 Indian Universities and Institutions, MKU has secured 69<sup>th</sup> position.

- **4.2.5** Quacquarelli Symonds (QS), UK released its 16<sup>th</sup> edition of QS World University Rankings 2020 and Madurai Kamaraj University is placed in the rank band of 86-90 based on six parameters which include 'Academic Reputation' and 'Employer Reputation'.
- Under the Scheme 4.2.6 of Transdisciplinary Research for India's Developing Economy (STRIDE) UGC has sanctioned a research project for Rs.1.00 crore to the University in the year 2019 to establish an 'Integrated Resource Centre for Environment, Climate Change and Biodiversity (IRCECCB)' in Madurai Kamaraj University. UGC selected Madurai Kamaraj University as one among the 16 Universities in the Country to operate under UGC-STRIDE programme. This integrated resource centre was specifically proposed to help and protect the biodiversity and the dependent livelihood of millions of people which are affected nationwide due to climate change and other environmental issues.
- **4.2.7** In the year 2019, the Government of Tamil Nadu selected MKU as one of the

to establish an centres Entrepreneurship Development and Innovation Institute (EDII) of HUB with futuristic vision enrichina Entrepreneurial Quality Training Programme for University and its affiliated college students. EDII - HUB conducted TOP MANAGEMENT MEET & ORIENTATION workshop for affiliated and constituent colleges, three days Development programme to create awareness on Entrepreneurship among faculties, Awareness Programme on Tamil Nadu Student Innovators (TNSI) - 2019 and two days workshop on e-Leaders for students.

- **4.2.8** A sum of Rs.20.00 crore has been sanctioned and released under RUSA Phase 1 for the year 2017-18 and was effectively utilized. A sum of Rs.53.50 crore has been sanctioned under RUSA Phase 2 and 300 computers and 2 servers were purchased.
- **4.2.9** Through UGC grant of Rs.1.20 crore, a "Fitness Centre with Sports Science Backup" complex is being constructed. Further, Rs.1.20 crore has been released by UGC to

equip the complex with the state-of-the art sports instruments.

- **4.2.10** The digitalization of books, which are more than 60 years old and rare Tamil and English Literature, has been inaugurated with the support of the Directorate of Public Libraries in Dr. T.P.Meenakshi Sundaranar Library. This digitization work covers rare Tamil and English Literature books and Palm leaves of ancient Tamil Literature. After completing the digitization of those rare books, they would be uploaded in the web sites of Madurai Kamaraj University and Anna Centenary Library, Chennai. So far, 1,273 books have been digitized and quality checking is being done.
- **4.2.11** Madurai Kamaraj University Dr.T.P.Meenakshi Sundaranar Library has already uploaded 2229 full text theses in the Shodhganga site. Now, an amount of Rs.19.40 lakh has been sanctioned by UGC for the digitization of Ph.D thesis submitted before the year 2007.
- **4.2.12** Madurai Kamaraj University was recognized on 30.01.2020 by the renowned

Academic publishers Springer, Nature and Elsevier for being one of the best State Universities within the Tamil Nadu & Pondicherry region for having a very high utilization of Springer Nature e-resources in the year 2019.

- **4.2.13** A Heritage Consortium has been created with the objectives of collecting, documenting and disseminating knowledge related to our culture and also to take the research outcomes to the society.
- **4.2.14** An amount of Rs.47.00 lakh has been received from the Consortium for Educational Communication (CEC) for the development of Massive Open Online Courses (MOOCs). The EMRC hosts 7 Massive Open Online Courses through SWAYAM for UG programs during the year 2019.
- **4.2.15** As on date, the h-index of Madurai Kamaraj University is 90 as per Scopus. A total number of 314 research publications in Scopus indexed Journals were published by University faculty members from January to December 2019.

- **4.2.16** A total of 61 research projects at an outlay of about Rs.25.00 crore are being carried out by the faculty members of Madurai Kamaraj University, supported by National and International funding agencies including DST, DBT, SERB, ICSSR, UGC, ICMR and DAE.
- **4.2.17** An Industry Consultancy Cell is functioning very actively in which the faculty members are encouraged to undertake industry related services and Rs.10.37 lakh has been earned by offering Tissue Typing services to various hospitals from April November, 2019.
- **4.2.18**. Post Metric Scholarship of Rs.34.69 lakh, Higher Education Special Scholarship of Rs.16.64 lakh for the year 2018-19 and Prize Money awards of Rs. 36,000/- for the year 2017-18 were received and disbursed to SC/ST students of this University and Affiliated Colleges.
- **4.2.19**. During the current year, 6 Post-Doctoral Fellowships and 83 Research Fellowships to the tune of Rs.11.50 lakh have been awarded by premier funding agencies to

carry out various research projects in the University.

- **4.2.20** The University was awarded with a total amount of Rs. 9.00 crore in the DST-PURSE Phase -I Programme and Rs. 7.35 crore in the Phase II for the year 2017-2022. Many Department recognized by DST-PURSE and UGC-SAP Programmes.
- **4.2.21** An agreement (MoU) between Madurai Kamaraj University and Rural Electrification Corporation Limited (RECL) has been signed in the year 2018 to establish a Solar PV system with 1 MWp capacity in the University campus at a total cost of Rs.7.50 crore. The RECL released a sum of Rs.2.84 crore as 1<sup>st</sup> Instalment. The establishment of solar power panel will be completed this year.
- **4.2.22** The Networking Resource Centre in Biological Sciences (NRCBS) is a unique UGC supported programme, which provides hands on training to young researchers in the advanced areas of biological sciences and in Phase II Rs.10.00 crore has been sanctioned for the years 2018-2023.

- **4.2.23** Madurai Kamaraj University has been selected by Tamil Nadu Government as a collaborating centre for Archaeological Research and more particularly in ancient DNA research.
- **4.2.24** A Heritage Consortium has been created with prime objectives of collecting, documenting and disseminating the knowledge related to our culture and also to take the research outcomes to the society.
- **4.2.25** The EMRC, Madurai Kamaraj University hosted 37 UG courses in the SWAYAM Platform. As of now, Madurai Kamaraj University has uploaded about 3.3 lakh student data in the National Academic Depository (NAD) portal.

### 4.3. ANNA UNIVERSITY

- **4.3.1** Anna University, the single largest Technical University in India, continues to be leader in Technical Education in the Country. This prestigious University was established on 4<sup>th</sup> September, 1978, as a unitary type University by integrating four well known technical Institutions in the city of Madras (now Chennai), College of Engineering, Guindy (CEG), Alagappa College of Technology (ACT), Madras Institute of Technology (MIT) and School of Architecture and Planning (SAP). Now it is an affiliating type of University with all the engineering colleges of the State under its umbrella.
- The University has 4 campuses (CEG, AC Tech, SAP and MIT), 13 Constituent Colleges and 3 Regional campuses situated in Tirunelveli, Madurai Coimbatore. and 551 Government, Government aided Self and financing Colleges are affiliated to Anna University. Anna University offers 28 UG and 77 PG programmes with 15,515 (9,129-Male and 6386-Female) students on roll in the University

Departments, 43 UG & 59 PG Programmes in Affiliated Institutions with 3,79,763 students on roll and 2,297 (1264-Male & 1033-Female) PG students on roll in Distance Education programme. Anna University is proud of having 12,129 Ph.D. scholars (Male-7229 and Female – 4900) on roll.

- Anna University has achieved 7<sup>th</sup> Rank among the Universities, 12<sup>th</sup> Rank among Architecture Institutions, 9th Rank among Engineering Institutions and 14th Rank in the category and overall 43<sup>rd</sup> Rank in Management category under NIRF 2019 (National Institutional Ranking Framework India Rankings 2019) released by the MHRD, Government of India. As per QS Ranking 2019, Anna University has been ranked in the range between 751-800 worldwide, 169th at Asia level, 13th at all India level and 87th at BRICS level. As per QS World University Ranking (2020) Anna University has moved 24 places to 373rd rank in Engineering and Technology category.
- **4.3.4** Anna University introduced 4 UG courses in its Regional Centres at Tirunelveli,

Madurai and Coimbatore, to facilitate 720 students to enroll in the University Colleges of Engineering.

The Central Water Commission (CWC) Government of India, has sanctioned a sum of Rs.4.10 crore for capacity building under its flagship program of Dam Rehabilitation and Improvement Program (DRIP), funded by the World Bank. Centre of Excellence (CoE) has been established at MIT campus of Anna skill development. University in technical Additionally five Technical Skill development Institutes(t- SDIs) at University College of Engineering - Kancheepuram, University College Engineering-Villupuram, Thanthai Periyar Institute Government of Technology-Vellore, Polytechnic College-Taramani Central Murugappa Polytechnic College- Avadi have been established through Public Private Partnership (PPP) in collaboration with Siemens and Design tech Limited at a cost of Rs.546.84 crore with the Tamil Nadu State contribution as 54.68 crore through Tamil Nadu Rs Skill Development Corporation Limited. The Government in collaboration with Siemens has also established 14 laboratories at MIT Campus.

- 4.3.6 Based on the Memorandum of Agreement ("MOA") signed between University, Siemens Chennai and Mumbai, Siemens has established machine tool technology equipment as Sinumerik 828D hardware kit and Sinutrain - CNC simulation software to conduct training program on these technologies at University College Engineering, Nagercoil and Dindigul. Siemens will provide hardware & software that can be used to upgrade the training infrastructure. These programmes will help in bridging the gap the institution and between the industry requirement.
- **4.3.7** The university team had participated in the Aero India Drone Olympics conducted as a part of Aero India 2019 by the Indian Airforce, Ministry of Defence and won one gold medal and two silver medals in different categories of competition.
- **4.3.8** Currently, there are 14 Departments of Anna University which were recognized by the

- U.G.C. to receive support under the Special Assistance Programme for a period of 5 years. The total grant sanctioned is Rs.16.98 crore.
- **4.3.9** The Department of Science and Technology has recognized 17 Departments of the University under the Fund for Improvement of Science & Technology Infrastructure (FIST) scheme to receive infrastructural grants amounting to a total of Rs.18.04 crore.
- 4.3.10 University with Potential Excellence (UPE) in Bio Medical Engineering and Instrumentation has come out with the commercial prototype of a new semi- automated Physician's Aid for Antibiotic Selection (PAAS) and got it clinically validated in a National Accreditation Board for Testing and Calibration (NABL) accredited reputed Laboratories Microbiological lab. It is ready for now commercialization.
- **4.3.11** A high throughput model and an automated version of the Physician's Aid for Antibiotic Selection (PAAS) have also been developed to facilitate clinics and hospitals to

manage efficacious antibiotic therapy against even multi drug resistant bacteria.

- **4.3.12** The Small Molecular Analytics, Artificial Intelligence based Bio-medical imaging Electronic platform, System Design Manufacturing facility, Electrical & Mechanical & Calibration facility and Testina Manufacturing Mechanical Unit have heen established to enable the complete fabrication of marketable Bio-medical devices from laboratory prototype & concepts at the cost of Rs. 20 crore. These advanced and state of the art facilities will also serve as national facilities to support indigenous design, development & manufacturing by MSMEs and Startups.
- **4.3.13** The Centre for Aerospace Research (CASR) team had been shortlisted as one of the five teams to participate in the final phase of the Mehar Baba prize competition being organised by the Indian Air Force towards design and development of collaborative Unmanned Aerial Vehicles (UAVs) which will have potential to create humanitarian assistance and disaster relief.

- **4.3.14** Post Doctoral Fellowship (PDF) opportunities created at Anna University under Centre for International Relations.
- **4.3.15** A sum of Rs.50.00 crore has been approved by Project Approval Board (PAB) for RUSA Phase 2.0 to Anna University towards Research, Innovation and Quality Improvement. Out of the above, a sum of Rs.15.00 crore was sanctioned to create a Career, Innovation and Entrepreneurship Hub at Anna University.
- **4.3.16** A Memorandum of Understanding has been signed for collaborative work on UAV technology between North Eastern Space Application Centre (NESAC) under Department of Space and CASR to expand UAV related activities for the benefit of North Eastern Region by NESAC.
- **4.3.17** Anna University revised its CBCS (Choice Based Credit System) curriculum (R-2019) according to the AICTE model curriculum which gives more scope to learners to participate in co-curricular activities like Smart India Hackathons and web based learning

through platforms like SWAYAM, MOOCS, NPTEL etc.

- **4.3.18** Anna University has streamlined its Assessment procedures which has enabled students to know their academic progress using a secured online platform called SEMS (Secured Examination Management System).
- **4.3.19** The Department of Science and Technology, Government of India, has sanctioned a Five Year Project (2018-23) titled, "Medical Device Development and Commercialization", for a total grant of Rs.3.98 crore to the National Hub for Healthcare Instrumentation Development (NHHID), Anna University, Chennai.
- **4.3.20** Anna University has filed 158 patents and secured 41 patents of which, 29 patents are National and 12 patents International. Anna University has signed 14 MoUs during the period 2019-20 out of which 2 are International MoUs and 14 are at National Level.

- **4.3.21** An amount of Rs.1.45 crore and Rs.1.28 crore (University fund) has been sanctioned for construction of various buildings and providing infrastructure facilities respectively at Anna University during the year 2019-20.
- 4.3.22 Based on the announcement made by the Hon'ble Deputy Chief Minister during the vear 2019-20, Rs.40.00 crore has sanctioned by the Government towards purchase of equipments in 16 Constituent Colleges and Construction of Hostel building at University College of Engineering, Dindigul and Regional campus, Madurai. Out of Rs.40.00 crore, a sum of Rs.33.00 crore has been allocated for purchase of equipments to all the University Constituent Colleges and steps were taken for purchase. Tender has been floated for Rs.7.00 crore for the construction of Hostel buildings at University Constituent College, Dindigul and Regional Campus, Madurai

### **4.4 BHARATHIAR UNIVERSITY**

- **4.4.1** Bharathiar University was established in February 1982 with 9 academic Departments. Currently the University has 13 Schools housing 39 Departments. Through these Departments, 54 PG Programmes are offered besides M.Phil. and Ph.D. programmes. During the academic year 2019-20, 2776 PG students, 78 M.Phil. scholars and 210 Ph.D. scholars are admitted.
- Colleges are **4.4.2** 131 affiliated to Bharathiar University. Among them, Government colleges, Airforce 1 is College, 3 are Constituent Administrative Colleges, 16 are Aided Colleges and the remaining 85 are Self-Financing Colleges and 13 Management Colleges. The Bharathiar University has 29 Colleges with Autonomous Status under its purview. Also, 33 Research Institutions are functioning under Bharathiar University.
- **4.4.3** Currently 1,13,844 students are studying in Undergraduate, Postgraduate, Diploma and Research Programmes in the University Departments, Affiliated Colleges,

Research institutions and School of Distance Education.

- **4.4.4** During the academic year 2018-19 1,483 students benefited under the Post Matric Scholarship with the sanctioned amount of Rs.1.10 crore.
- **4.4.5** During the academic year 2018-19, the University received a financial assistance of Rs.2.51 crore from University Grants Commission (UGC) and Rs.8.06 crore from other agencies and for the year 2019-20 Bharathiar University received Rs.0.53 crore from UGC, Rs.3.04 crore from other agencies.
- **4.4.6** The National Assessment and Accreditation Council (NAAC), India has accredited the University with 'A' Grade in 2003 and reaccredited in the year 2010 with 'A' grade. Bharathiar University has been accredited consecutively in third cycle with 'A' grade in 2016.
- **4.4.7** Bharathiar University has been ranked as 14<sup>th</sup> at National level under Universities category by the National

Institutional Ranking Framework (NIRF), Ministry of Human Resource Development (MHRD), Government of India for the year 2019.

- **4.4.8** Clarivate Analytics (Web of Science) has awarded Bharathiar University in the Seventh Edition as the best State University for the year 2019 for quoting and referring the large number of Research Articles written by the Professor's of Bharathiar University by Researchers in the World.
- **4.4.9** Bharathiar University has 8,680 publications with the citations of 93,962 with the "h" index of 103 as per SCOPUS database as on December 30, 2019. The University has the 'h' index of 57, according to Scopus data, with 29,336 citations during 2014 to till date. This is the highest among the Arts and Science Universities in the State of Tamil Nadu in India.
- **4.4.10** Bharathiar University (www.b-u.ac.in/visaka) excelled in Government of India's Digital Financial Literacy 'VISAKA' and achieved Second Rank among Top Best 20 Institutions out of 4896 Institutions in India. Towards this, an

award has been given to Bharathiar University by MHRD during the VISAKA National Convention at Vigyan Bhawan, New Delhi.

- **4.4.11** Bharathiar University has been allotted Rs.3.64 crore by UGC, to work on Solar Energy through UGC-Centre with Potential for Excellence in Particular Area (CPEPA).
- **4.4.12** Bharathiar University has been awarded Rs.9.00 crore by DST-PURSE program during the first phase and Rs.17.25 crore during the second phase, for procuring the sophisticated state-of-the-art research instruments based on the cumulative h-index (SCOPUS).
- **4.4.13** Twelve departments of the University have received the Special Assistance Program supported by University Grants Commission, Government of India and 10 Departments have received the DST-FIST grant by Department of Science and Technology, Government of India with a large funding of Rs.19.81 crore.

- **4.4.14** Under RUSA Phase I, Rs.20.00 crore was utilized for the infrastructure development of the University. In Phase II, Rs.35.00 crore has been allotted to set up the Bharathiar Cancer Theranastics Research Centre under research, innovation and quality improvement plan.
- **4.4.15** The Defence Research & Development Organization-Bharathiar University - Centre for Life Science (DRDO-BU-CLS) was established as a joint venture by DRDO, Ministry of Defence, Government of India and the Government of Tamil Nadu at Bharathiar University campus as an autonomous research institute to pursue high degree of both basic and applied research. The University has received Rs.45.37 crore with 15 Research Projects through this centre.
- **4.4.16** An amount of Rs.15.00 crore was allotted by MHRD, Government of India under RUSA 2.0 to establish Entrepreneur, Innovation and Career Hub.

- a) 86 Projects/Training/Workshop in various disciplines with entrepreneurship, innovation and career as focus is being sanctioned.
- b) An amount of Rs.3.00 crore has been earmarked for creating Technical,
   Entrepreneurship centre and Skill development centre.
- c) It is planned to establish an IncubationCentre at a cost of Rs.3.00 crore under RUSA2.0 programme.

### 4.5 BHARATHIDASAN UNIVERSITY

- **4.5.1** Bharathidasan University, named after the great revolutionary Tamil Poet Bharathidasan, was established in the year 1982. With the ultimate aim of creating a *brave new world*, Bharathidasan University ensures the pursuit of excellence in teaching, learning, research and extension of knowledge through Higher Education. The mission of the University is to promote scholarly, scientific and critical inquiry among the learners to move forward in the frontiers of knowledge.
- **4.5.2** The University was ranked 67 and 60 in NIRF India Rankings in University category for the years 2017-18 and 2018-19 respectively. In April 2019, the University was accredited with A+ Grade at 3.32 CGPA in the 3<sup>rd</sup> cycle by the NAAC.
- **4.5.3** The University has 4 Faculties, 16 Schools, 37 Departments, 29 Specialized Centres, 8 Central Facilities and 9 Cells, conducting more than 100 programmes at different levels. The University affiliates a total number of 152 colleges (Government-25, Aided-

- 19, Self-Financing-88, Constituent Colleges-6, Approved Institutions-13 and one Uni-Faculty Institution). At present 2,232 students are pursuing their higher studies and research in the University Departments. 1,182 Ph.D. Degrees were awarded during the year 2019-20. As many as 5,952 students are pursuing their studies and research in the constituent colleges.
- **4.5.4.** Bharathidasan University Entrepreneurship, Innovation and Career Hub (BECH) was inaugurated by the Hon'ble Prime Minister of India on 03.02.2019 through video conferencing as a part of Digital Launch of RUSA 2.0.Department of Science and Technology sanctioned Rs. 17.35 crore under PURSE to the University for the duration of four years. At the Rs.6.28 first instance crore (Equipment Rs.5.19 crore, Contingency, Fellowship, Travel Rs.1.09 crore) was released to the University.
- **4.5.5** A new 24x7 full-fledged Hospital was established in both the campuses, with two ambulances, resident doctors and nurses. Clean Green Initiative (CGI) cell was established and an e-Vehicle to segregate the bio-waste was

commissioned. To ensure an eco-friendly ambience, 76 cycles were provided free of cost to both staff and students to commute within the campus. Garden Library was inaugurated for the use of University staff as well as the public so as to promote the reading culture. Children's Corner with books, e-resources and facilities with play materials was established in the General Library.

- **4.5.6** Bharathidasan University received the prestigious best University (First) award under National Service Scheme (NSS) from the Hon'ble President of India at Rashtrapati Bhawan in New Delhi.
- **4.5.7** An amount of Rs.5.00 crore was sanctioned to the University by the State Government for the construction of the University Science Instrumentation Centre during the year 2019.
- **4.5.8** The University achieved world records citation from four academies in the world Elite World Records (USA), Asian Records Academy (Singapore & UAE), India Records Academy and Tamilan Book of Records

- for enrolling more than 1.40 lakh Tamil Nadu school students for skill development programmes in Information Technology in Institute of Entrepreneurship and Career Development (IECD) during the year 2019 and has been given the coveted hat trick world record.
- **4.5.9** A total of 34 research projects have been funded by various funding agencies including University Grants Commission (UGC), Council of Scientific and Industrial Research (CSIR), Department of Science and Technology (DST), Department of Bio Technology (DBT), Department of Atomic Energy (DAE), Defence Research and Development Organisation (DRDO), Board of Research in Nuclear Sciences (BRNS), Indian Council for Social Science Research (ICSSR) and Indian Council for Medical Research (ICMR) to the tune of Rs.28.27 crore during this year.

# 4.6 MOTHER TERESA WOMEN'S UNIVERSITY

- **4.6.1** The Mother Teresa Women's University was established through the Tamil Nadu Legislative Special Act 15, by the then Chief Minister Dr. M.G. Ramachandran, as the first Women's University in the State of Tamil Nadu. It was named after the Nobel Laureate and beatified Saint Mother Teresa. This unique University is committed to the development and empowerment of women belonging to all strata of society via Higher Education. The University functions exclusively for women, by women and of women with focus on Women's Studies under its triple arm Teaching, Research and Extension. The motto of the University "Towards Equal Status" envisions the empowerment of women via Higher Education.
- **4.6.2** The University has 17 Departments with three Research and Extension Centres at Chennai, Madurai and Coimbatore. The University has 54 faculty members. 747 Students are pursuing Ph.D Programme. The University which was unitary became an affiliating type in 2002. The Women's Colleges

in Theni and Dindigul Districts are affiliated to Mother Teresa Women's University. There are 12 Colleges functioning under this University which include 3 Government Arts Colleges, 2 aided, 1 Constituent and 6 Self Financing Colleges. There are 22,044 students studying in University and affiliated Colleges. The Directorate of Distance Education has been offering 16 programmes since 1988 at Kodaikanal. Totally 3,464 women students are studying through Distance Education Mode.

- **4.6.3** A Multipurpose hall at a cost of Rs.1.50 crore in Mother Teresa Women's University Research and Extension Centre, Madurai was inaugurated by the Hon'ble Chief Minister on 05.09.2017.
- **4.6.4** The University has been nominated as the Nodal agency to conduct the State Eligibility Test in Tamil Nadu for three years (2016-2018). The University has conducted TNSET 2016, TNSET 2017 and TNSET 2018 examinations as the eligibility test for Assistant Professors in the field of higher education. There

are 210 research scholars who received their Ph.D. degree from 2017 to 2019.

- **4.6.5** The Ministry of Science and Technology (CURIE) has sanctioned Rs.70.00 lakh for Computer Workstations/ Servers(4), Compute Nodes (20), LED Display, Projector, biometric Access and Printer for department of Computer Science, Mother Teresa University. Faculty Member, Women's Department of Physics has received UGC Raman Post-doctoral Fellowship.
- **4.6.6** The Department of Biotechnology & Tamil Nadu State Council for Science and Technology have facilitated to get Geographical Indication (GI) tag for Kodaikanal Malai Poondu. The University has received an amount of Rs.15.09 lakh from UGC towards Shodhganga Project, to digitalize Ph.D. theses. The Central Government Scheme UBA (Unnat Bharat Abiyan) has been implemented and about five villages have been adopted. Center for Gandhian Studies, Vivekanandha Studies, Incubation and Technology Transfer Centre have organized

numerous activities focusing on Teaching, Research and Extension.

- **4.6.7** The Faculty Members have published papers in 375 International journals and 66 in National level journals.
- **4.6.8** The University has received financial assistance from various funding agencies like ICSSR, DST, UGC- DAE, DST-SERB, CICT, CST-CURIE, UBA, Inspire Fellowship, IPR, and TNSCST(Student Project) and received a total amount of Rs.1.40 crore. The University is also carrying out the research projects at a cost of Rs.48.67 lakh sponsored by the above agencies.
- **4.6.9** Rs.20.00 crore has been sanctioned under RUSA scheme for infrastructure and other facilities upgradation viz., Library, Ladies Hostel, Computer Centre, Canteen and Science Laboratories.
- **4.6.10** The Tamil Nadu Government have sanctioned Rs.30.00 crore to the University for the Construction of Seminar Hall, Class rooms, Common Instrumentation Centre, Quarters for Officers and Compound Wall.

- Out of 1,152 4.6.11 students admitted in University Departments and Colleges, 883 students Constituent scholarships received to the tune οf lakh from postmatric scholarship Rs.57.12 scheme during 2019-20.
- 4.6.12 The NSS units of our affiliated colleges has adopted 27 villages. MoUs have been signed with 6 foreign Universities and 28 National Institutions. The University has coordinated free UPSC and IBPS Coaching classes for UG and PG students, sponsored by the Employment and Training Department of District Employment Office, Dindigul for 400 hours from August 2019 to January 2020.
- **4.6.13** Players of Mother Teresa Women's University, Kodaikanal have participated in the All India /South Zone Inter University Tournaments / Tamil Nadu Chief Minister's State Level Tournaments from 2017- 18 to 2019-20 and received Cash Award of Rs.6,90,000/- by 84 players in 7 Kabaddi events Rs.37,500/-, by 7 players in Athletic Events and Rs.32,000/- by 14 players as Sports

Scholarship . In All India Women's University Level Tournaments, the University stood in the Second Position with Gold 6, Silver 10 and Bronze 10 with overall individual championship trophy.

### 4.7. ALAGAPPA UNIVERSITY

- **4.7.1** Alagappa University is a State University established on 9<sup>th</sup> May 1985 by the Special Act passed by the Tamil Nadu State Legislature. It has 4 Faculties, 44 Departments, 10 Directorates & Centres and 3 University Constituent Colleges. Besides, it has 43 Affiliated Colleges, 6 Evening Colleges spreading over two Districts of Sivagangai and Ramanathapuram.
- **4.7.2** 203 Programmes in University Departments, 117 programmes in Affiliated Colleges, 66 programmes in Distance Education and 146 programmes in collaborative mode are offered at the University. All programmes in the University Departments and Affiliated Colleges are of Semester pattern under Choice Based Credit System (CBCS) with Continuous Internal Assessment (CIA) to ensure quality education. Around 1.07 lakh students are pursuing higher studies in the University through Regular and Distance Education mode (4,880 students in University Departments, 49,076 in Affiliated & Constituent Colleges and 53,625 students in Distance Education and Collaborative mode).

- **4.7.3** Alagappa University has been awarded A+ Grade by NAAC (CGPA: 3.64 out of 4) in the Third Cycle of assessment in May 2017. Alagappa University is the first State University which has obtained A+ status in the State of Tamil Nadu. Alagappa University has been placed in the 24<sup>th</sup> position in QS India 2020 Ranking and in the 28<sup>th</sup> position under NIRF 2019 Ranking declared by the MHRD, New Delhi.
- 4.7.4 Alagappa University has been conferred the status of Category I University in February 2018 under the UGC (Categorization of Universities for Grant of Graded Autonomy). Five viz., Politics Departments, & Public Journalism Administration, & Mass Communication, Theatre & Film Studies, Disaster Fisheries Science and Management have been recently established.
- **4.7.5** The Department of Bioinformatics of Alagappa University has been identified by the MHRD for designing the curriculum reforms to the global standard by inviting two subject experts from the foreign Universities / reputed Institutions. Alagappa University has introduced

D.Litt. and D.Sc. programmes. Overseas Post-Doctoral and Ph.D. fellowships have been offered to attract research scholars from abroad. UGC has approved the establishment of Pandit Deen Dayal Upadhyay Chair with the financial support of Rs.1.50 crore in 2018.

- **4.7.6** DST has awarded Rs. 7.00 crore to Alagappa University under 2<sup>nd</sup> phase of the PURSE scheme, covering the period 2016-17 to 2019-20. Under MHRD LEAP (Leadership for Academicians Programme) programme, seven senior faculty members were selected and have undergone training programmes in India and Foreign Universities. UGC has sanctioned Rs.1.00 crore for UGC STRIDE Component 1 scheme during 2019 and two faculty members of the University have received MHRD SPARC project partnering with professors from USA and China.
- **4.7.7** Nine MoUs have been signed during last two years (2018-20) with various Universities / Research Institutes / Associations in UK, USA, South Korea, China, Australia, Malaysia, Taiwan, Oman, Singapore and Norway

for research and faculty – student exchange programmes.

- **4.7.8** Alagappa University is one among top 10 Universities in India and has been allotted Rs.100.00 crore under RUSA Phase 2.0 scheme in November 2018. Out of which, 45% is earmarked for Capital expenditure and 55% for the quality improvement of Teaching and Research.
- **4.7.9** The Hon'ble Prime Minister of India inaugurated through video conferencing the Entrepreneurship, Innovation and Career Hub at Alagappa University during 3<sup>rd</sup> February 2019 under RUSA 2.0 scheme.
- **4.7.10** Work has been taken up towards construction of new buildings and maintenance at a cost of Rs.27.50 crore and Rs.4.50 crore under RUSA phase 2.0 scheme. Under component 4, quality improvement of teaching and research, 44 Professors from 17 QS ranked Universities from Abroad contributed for curriculum revision on par with global standards. 101 faculty members and 51 scholars have been given financial support for presenting research

papers in the International Conferences held abroad.

- **4.7.11** Under RUSA 2.0 scheme, merit scholarships / fellowships have been given to 317 PG students, 163 Ph.D. scholars, 35 Post Doctoral Fellows and 8 Senior Post Doctoral Fellows. 10 Research scholars have been given financial support to undertake research work in top ranked Foreign laboratories. Further, Rs.25.00 crore has been allotted for Theme Based Research work in the cutting edge research areas.
- **4.7.12** Digital Evaluation of answer scripts was introduced in the University from May 2019 examinations. Consequently, results of the University Departments were published within a very short span of 15 days.
- **4.7.13** As part of e-Governance initiatives, University has Alagappa established the of On-line Programme to Directorate offer through on-line mode in programmes collaboration with the partnering institutions identified by the participating Countries. Massive Open Online Courses (MOOCs) platform under

SWAYAM portal is being availed by about 3468 from all Departments. students Each been provided with Department has DTH connection and necessary accessories for the benefit of MOOC students. As of now, Alagappa University has uploaded about 3.2 lakh student data in National Academic Depository (NAD) portal.

## 4.8. MANONMANAIAM SUNDARANAR UNIVERSITY

4.8.1. Manonmaniam Sundaranar University is a dynamic Higher Education Institution, set in a rural milieu in the southernmost tip of Indian peninsula. It is catering to the academic needs of four southern Districts of Tamil Nadu viz., Tirunelveli, Kanyakumari, Thoothukudi The University was established in Tenkasi. 1990, by the Government of Tamil Nadu. The re-accredited by University is National Assessment and Accreditation Council (NAAC) and awarded 'A' Grade with a CGPA OF 3.13 out of 4. The Manonmaniam Sundaranar University is ranked as 5 among NAAC accredited State Universities. The University is ranked as 93 among Indian Universities in NIRF ranking during the year 2019 from the previous year of 194. Manonmaniam Sundaranar University has been ranked as 5 in the category of 'Government Residential Universities' in the 'Swachh Campus Ranking 2019' for Higher Educational Institutions organised by the Ministry of Human Resource Development.

- **4.8.2** There are 27 Departments (including 5 Centres in the University) which include the of Distance and Directorate Continuing Education and Directorate of Vocational Education. The Directorate of Vocational Education is offering skill based Diploma and Certificate courses in various skill sectors 21 Community Colleges through 66 Extension Learning Programme (ELP) P.G. Extension Centre Centres. One functioning at Nagercoil. Sri Paramakalyani Centre of Excellence in Environmental Sciences is functioning at Alwarkurichi and the Centre for Marine Science and Technology is functioning at Rajakkamangalam.
- **4.8.3** Around 99,407 students are pursuing their UG, PG, M.Phil. and Ph.D. programmes for the academic year 2019–20 in 24 Aided Colleges, 5 Government Colleges, 5 Manonmaniam Sundaranar University Colleges, 4 Constituent Colleges, 45 Self Financing Colleges and 8 Autonomous Colleges.
- **4.8.4** The University has 7 Departments under UGC's Special Assistance Programme

(SAP) and 5 Departments under Department of and Technologies (DST) programme. The University received a sum of Rs.20.00 crore under the RUSA Phase I scheme. Rs.1.68 crore, given by the State Government was utilized for the infrastructural development and purchasing equipments for the Department of Physical Education. A new Women's Hostel was built utilizing the funds given by the University Grants Commission and University fund to the value of Rs.2.09 Sundaranar University Manonmaniam planned to develop a Central Instrumentation Facility (CIF) consisting of the state-of-the art scientific equipments needed to conduct hi-tech research by the various departments, with an estimated cost of Rs.3.14 crore.

**4.8.5** In July 2019, five Tripartite MoUs were signed by Manonmaniam Sundaranar University, Indian Council of Medical Research and Tirunelveli Government Medical College involving 5 Departments of the University, namely, Statistics, Chemistry, Bio-Technology and Center for Information Technology and

Engineering to plan and execute multidisciplinary research.

- **4.8.6** The Integrated Classroom Complex was opened by the Hon'ble Governor of Tamil Nadu on 22<sup>nd</sup> August, 2019 in the presence of Hon'ble Higher Education Minister for the welfare of the students of the five-year integrated Postgraduate Programmes. This classroom complex has 26 classrooms and is built with a floor space of 49,592 sq.ft at the cost of Rs.9.20 crore.
- **4.8.7** As recommended by the University Grants Commission (UGC), the University has introduced Massive Open Online Course (MOOCs) through the SWAYAM portal in 2018 promoting the Digital India Initiatives which includes MOOCs as well as e-PG Pathshala Learning. 44 MOOCs and 26 e-PG Pathshala courses were completed by the PG students (664) in the University.
- **4.8.8.** One Megawatt Solar Power Plant has been installed in the Manonmaniam Sundaranar University (MSU), Tirunelveli at a cost of Rs.5.25 crore. This is the first installed solar

power plant among the State Universities of Tamil Nadu. MSU's achievement serves as a benchmark for other Universities in Tamil Nadu for solar energy production. The solar power plant has been erected in 3.75 acres with 3080 solar panels and generates approximately 4000 units of electricity per day and its consumption is 1,20,000 units per month. The electricity generated from this power plant has been consumed internally.

- **4.8.9** The State Government has sanctioned a grant of Rs.20.00 crore to Manonmaniam Sundaranar University to expand its research infrastructure and the implementation plan has already been drafted and work is in progress.
- **4.8.10** An Integrated Center of Excellence (ICOE) is being formed to make available model frameworks, Standard Operating Procedures, Datasets and documentation of innovative ideas and suggestions. This ICOE will streamline all Multi-Disciplinary research clusters. The proposed Central Instrumentation Facility (CIF) will be a huge add—on support for this endeavor.

**4.8.11.** The University has a well equipped indoor stadium and Gymnasium for the use of Students. "Manovani" Online Radio station is functioning in the University. In addition to these, facilities such as Health Centre, Guest House, Post Office, Bank, ATM, Students' with round Amenities centre the ambulance service and Day Care Service for Women are also available in the University campus. The University encourages transgender candidates higher education to pursue programmes by waiving fees.

## **4.9 PERIYAR UNIVERSITY**

- **4.9.1** The erstwhile Post Graduate Extension Centre of University of Madras was elevated as Periyar University at Salem in 1997 by enacting the Perivar University Act, 1997. The University and its Departments are working with objectives of developing knowledge in various fields to realize the maxim inscribed in the logo "Arivaal Vilayum Ulaqu" (Wisdom the World). The University is Maketh progressing exponentially and has recognized by the accrediting agencies such as University Grants Commission and National Assessment and Accreditation Council and National Institutional Ranking Framework, Ministry of Human Resource Development, Government of India.
- **4.9.2** At present, the University has 5 Science Schools and 3 Arts Schools comprising 27 Departments offering 29 Postgraduate programmes and 27 Research programmes. In the University Departments, 153 faculty members are working under various categories. The Postgraduate Centre of Periyar University at

Dharmapuri is performing well with 8 Departments with 20 faculties. The University has 4 constituent colleges at Harur, Pappireddipatti, Edappadi and Senthamangalam which are functioning smoothly with adequate number of regular staff and students.

- **4.9.3** The University has revamped the curricula with the objective of making it outcome programmes offered in the based. The "SWAYAM" and "MOOC" platforms are adopted in the revised syllabi. The question paper patterns are revised with objective, analytical and descriptive types with an aim to prepare the students to address the competitive examinations for hiaher studies and employment. Adding a cap to the objectives of the University, it has introduced skill based programmes such as AR/VR in Computer Science, Textiles and Food Science Departments.
- **4.9.4** The University is accredited with "A" grade by NAAC in 2015 and ranked 68<sup>th</sup> in the NIRF 2019 among the Universities in India. The Departments of Mathematics, Physics, Geology, Microbiology, Food Science and Nutrition,

Biotechnology were recognized by DST under FIST program and the Departments of Computer Science, Chemistry, Mathematics, Geology, Journalism and Mass Communication are recognized under UGC – Special Assistance Programme (SAP).

- **4.9.5** The University has procured sophisticated equipments such as Single Crystal XRD, SEM, Solar Stimulator, GCMS etc. under RUSA Scheme in 2018-19. The funds to the tune of Rs.5.82 crore were mobilized between 2017 and 2019 through 56 funding projects and special schemes from the National funding agencies. The purchase of materials required for the Departments procured are through Government Electronic Marketing (GeM) and the University stand among the top State Universities in purchase through GeM.
- **4.9.6** Faculty Lecture Programmes for the University faculty and the Faculty Training Programmes for the affiliated college teachers were conducted from 2018 onwards and 2000 teachers benefitted. Workshop for the Research

Scholars of University and Affiliated colleges was conducted in 2019.

- **4.9.7** The University has signed several MoUs with national and international institutions and some of the significant MoUs are with University of South Brittany, France for mutual exchange of Faculty members, Curtin University Sarawak, Malaysia for student's internship programme and University Teknologi Petronas, Malaysia for internship and faculty exchange. Using this MoU, 5 students from Department of Geology have visited Curtin University Sarawak, Malaysia for 30 days internship during the academic year 2018-19.
- **4.9.8** Renowned Professors scheme from abroad universities to visit Periyar University has been introduced in 2019-20 for collaboration, teaching and research. The University has introduced poor children scholarship in the Departments and the entire fees for studies and hostel is borne by the University from the year 2018-19.
- **4.9.9** The Best Teacher and Best Researcher award was introduced in the year

2018-19 and 6 teachers were bestowed with these awards so far. Further, the University provides 50% travel expenses to encourage the teachers and research scholars to participate and present papers in the International Academic programmes.

- **4.9.10** The University has sanctioned 143 University Research Fellowships. University Postdoctoral Fellowship has been introduced in the year 2019-20 for the duration of two years for 12 Departments in the first phase is in vogue.
- **4.9.11** The infrastructure facilities have been made in the Periyar University campus to the tune of Rs.15.245 crore and inaugurated by the Hon'ble Chief Minister on 30.01.2020 through Video Conferencing.
- **4.9.12** The Government has sanctioned a sum of Rs.5.21 crore for construction of

additional buildings for Periyar University Constituent College of Arts and Science, Edappadi, Salem District and the construction work is nearing completion. The Government has sanctioned a sum of Rs.7.875 crore for the construction of buildings for Periyar University Constituent College of Arts Science, Senthanmangalam. The construction work has been completed and the college has been opened by the Hon'ble Chief Minster on 05.03.2020

#### **4.10 TAMIL NADU OPEN UNIVERSITY**

The Government of Tamil Nadu 4.10.1 established the Tamil Nadu Open University (TNOU) in 2002 to introduce and promote Open and Distance Learning (ODL) systems in the educational pattern of the State of Tamil Nadu and for the coordination and determination of such standards to provide a non-formal channel of education complementary to the formal transfer of credits, education and training in the various fields of Arts and Crafts. The Tamil Nadu Open University has been offering cost-effective socially relevant Open and Distance Learning programmes to the disadvantaged groups such as rural people, working people, housewives, Differently abled persons, Backward Classes, Scheduled Caste and Scheduled Tribe Students. The University has been offering 76 Academic programmes starting from Preparatory, Certificate, Diploma, Degree and Master Degree level. The current student admission of Tamil Nadu Open University is 31,646.

- **4.10.2** The University reaches out to its learners through a network of **532** centres comprising 170 Learning Resource Centres (LRC), 243 Community Colleges, 75 Learner Support Centres (LSC), 9 Jail Study Centres (JSC) and 35 Partner and other Institutions (PI).
- **4.10.3** The University has received the Estrade Education Award, Mumbai, for innovations in ICT use in ODL during 2017. Under GOI initiative EK Bharat Ek Shresthta, TNOU in association with IIT-Kharaghpur organized a Cultural Programme by involving artists from the Tamil Nadu and Jammu & Kashmir on 30<sup>th</sup> and 31<sup>st</sup> January 2018 and invited participants from Tamil Nadu in which around 18 students were from TNOU.
- **4.10.4** Under National Academic Depository (NAD), an initiative of the Government of India for digitalization of Certificates, the University has uploaded 65,637 Degree Certificates in the NSDL Data Base Management.
- **4.10.5** The MHRD initiative of "Unnath Bharat Abhiyan" which aims at transformational

changes in rural development was implemented by TNOU in the year 2018. Basic amenities are being developed in 5 Villages viz., (i) Periyanahalli, (ii) Baisuhalli, (iii) Boomandahalli, (iv) Kerakodahalli and (v) Gumbarahalli in Dharmapuri District.

- **4.10.6** Induction Programmes were conducted in order to involve promotional activities viz., introduce new skill oriented/employability oriented programmes, enhancing admission, delivering quality education including Online Admission process at Chennai, Villupuram, Madurai, Tirunelveli, Coimbatore, Dharmapuri, Nilgris and Tiruchirappalli.
- **4.10.7** In compliance with the UGC ODL Regulations 2017, the University got the approval for 38 PG and 42 UG programmes for the year 2018. As a part of empowerment for the past five years, Tamil Nadu Open University has awarded degrees to 2,25,852 students, out of which 97,460 students are women.
- **4.10.8** As a part of Rehabilitation to the Jail inmates, a Community College in the name of Mahatma Gandhi was established at 9 Prisons

(including 3 Women Prisons) for offering skill related diploma programmes. So far, 1,380 Jail inmates have received their Skill related Diplomas and at present 51 Jail inmates are undergoing the Skill related Diploma Programmes in Prisons. As a part of Gross Enrollment Ratio (GER) Tamil Nadu Open University has admitted 1,98,692 students in the past 5 years.

- **4.10.9** As announced by the Government of Tamil Nadu, an exclusive Centre for Online Education has been set up in the University to offer online programmes and the University has also completed the formalities to establish TNOU's Learning Support Centre (LSC) and Examination Centres in 91 Government Arts and Science Colleges in the State.
- **4.10.10** 3 additional Floors in the Academic Block at a cost of Rs.23.00 crore which includes an Auditorium with a seating capacity of 650 seats and a Conference hall with the seating capacity of 120 seats and the Guest House in the MPDD Block have been inaugurated

by the Hon'ble Chief Minister of Tamil Nadu on 30.01.2020 through video conferencing.

**4.10.11.** Supplementary Examination was conducted during September 2019 for the first time in the history of TNOU from which nearly 600 students were benefitted and obtained degrees.

## **4.11. THIRUVALLUVAR UNIVERSITY**

- **4.11.1** Thiruvalluvar University was started by the Government of Tamil Nadu by enacting the Act No.32 of 2002 in the Legislative Assembly. The University is now functioning with 7 Departments with 43 teaching faculties. It has colleges viz., Thiruvalluvar 4 constituent University College of Arts and Science at Arakkonam, Tittagudi, Kallakurichi, Tirupattur and one PG Extension centre at Villupuram. There are 286 students studying in PG, M.Phil., and Ph.D., degree courses in the University Departments and a total of 9,523 students and 364 students are studying in the Constituent Colleges and PG Extension Centre respectively. In 124 affiliated colleges, a total of 1,55,216 students are studying in UG, PG and M.Phil. degree courses. Thiruvalluvar University has been accredited with a CGPA of 2.25 on a seven point scale at "B Grade" valid for a period of 5 years from 2018, by National Assessment and Accreditation Council.
- **4.11.2** The Department of Biotechnology has received Best Researcher Award and

Outstanding Faculty Award from AIMST University, Kedah, Malaysia in 2018. Further, the Department of Biotechnology has undertaken two projects worth Rs.70.00 lakh from the AYUSH and SERB sponsored by Government of India. The Department of Zoology has received a patent entitled 'A Process for producing silver nano surgical suture thread' on 10<sup>th</sup> August 2018 by the Government of India. A Project grant of Rs.19.20 lakh has been sanctioned by DST-SERB as Post Doctoral Fellowship to Department of Biotechnology.

- **4.11.3** The State Government have granted Rs.29.00 crore to Thiruvalluvar University for institution of 3 new courses and for construction of infra-structural facilities, like additional class rooms and students hostel. Accordingly, in this University 3 new Departments namely, Computer Science, Physics and Commerce is to be established during 2020-21 along with the existing 7 Departments.
- **4.11.4** The State Government has also sanctioned a sum of Rs.3.50 crore to Thiruvalluvar University for the establishment of

laboratories infrastructural facilities in 6 University Colleges and the PG Extension Centre at Villupuram (Rs.50.00 lakh for each college and P.G. Extension Centre).

- **4.11.5** Three research projects have been sanctioned by the Department of Science and Technology during 2019-20 at the cost of Rs.18.10 lakh.
- **4.11.6** The University had organized 2 Entrepreneurship Training Programmes through Skype with CAP Digisoft Solutions Inc. More than 250 students of the University Departments participated.
- **4.11.7** The University has introduced MOOC online courses for PG, M.Phil. and Ph.D. students of their own choice and training for the faculty members were given to develop e-content of their respective subjects.
- **4.11.8** The University annually arranges for sanction of SC/ST Post Matric Scholarship for the 1<sup>st</sup> year students of the self financing colleges and BC/MBC/SC/ST Scholarships to the students of the University Departments.

- **4.11.9** The faculty and students of the University Departments have attended 64 National and International Conferences and published 138 research papers in various journals for the last ten months.
- **4.11.10** Thiruvalluvar University in association with Vellore District Employment Office has organized a meeting to provide Free Coaching classes for various Competitive Examinations.
- **4.11.11** e-Content and video lectures have been developed by the faculty members for various subjects and the same has been uploaded for access by students of the University and the affiliated Colleges. This University is conducting Bridge Courses for 1<sup>st</sup> year P.G. students and NET/SET/UPSC coaching classes for 2<sup>nd</sup> year P.G. students regularly by each Department every day.

**4.11.12** Thiruvalluvar University has developed its campus as an ideal place for practicing and showcasing environment sustainable practices. Especially, Herbal Garden has been established in which nearly 600 saplings including medicinal valued plants among other plants have been planted in the University campus. For the first time, Apiculture (Bee keeping) and Mushroom cultivation have been introduced in the campus.

# 4.12. TAMIL NADU TEACHERS EDUCATION UNIVERSITY

- 4.12.1 The Tamil Nadu Teachers Education University was established to promote Excellence in Teacher Education. The objective of the University is to promote Excellence in Teacher Education and to organize seminars and conferences frequently to update the knowledge of teacher educators in the University/Colleges. The University has affiliated Colleges of Education comprising Government and 14 Government Aided Colleges of Education and 698 Self-financing Colleges of Education.
- **4.12.2** The NCTE granted recognition to offer two-year M.Ed Degree Programme at the Tamil Nadu Teachers Education University from the academic year 2017-18.
- **4.12.3** In the year 2019, the University has applied to NCTE through online, for grant of recognition to offer one unit of Four Year Integrated Teacher Education Programmes (ITEPs)-Upper Primary-Secondary Science Streams each to Constituent Colleges of

Education at Edappadi (Salem) and V.Maruthur (Villupuram) besides one unit at the University campus from the academic year 2020-21.

- **4.12.4** In the year 2018, the MHRD sanctioned a project under "Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)" for setting up of Faculty Development Centre (FDC) and to organize training programme with the financial outlay of Rs.5.38 crore to the Tamil Nadu Teachers Education University. A sum of Rs.3.90 crore was provided in the outlay for setting up of Faculty Development Centre (FDC) in the University and the foundation stone was laid on 08.01.2020 and the construction work is under progress.
- **4.12.5** The University has constituted Internal Quality Assurance Cell in the year 2019 as per the guidelines of National Assessment and Accreditation Council (NAAC). The University has started publishing a monthly e-Newsletter in the name of "TNTEU News Tracks" from the month of December 2019 onwards. The University has successfully uploaded the Online Performance

Appraisal Report (PAR) for the academic year 2018-19 as required by the National Council for Teacher Education, during the year 2019.

- 4.12.6 The Indian Council of Social Science Research has sanctioned Rs.1.75 lakh for organizing a National Seminar/Conference on "Skill Development and Goal Setting Strategies for Urban and Rural Students" at the Department of Pedagogical Sciences, during the year 2019. The Indian Council of Social Science Research, MHRD, New Delhi has sanctioned Rs.2.50 lakh during the year 2019 for organizing National Seminar on "Fill the Mind Gap by Occupational Skills" to the Department of Educational Technology.
- **4.12.7** The Department of Education, Pondicherry University has sanctioned Rs.1.25 lakh under the MHRD's Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) Scheme during the year 2019 to the University to carry out research on "Effectiveness of the Interactive Mathematical Software Geogebra on Achievement in Mathematics among 10<sup>th</sup> Standard Students."

- **4.12.8** The Central Institute of Indian Languages, Mysore has sanctioned Rs.40,000/-for conducting a workshop on Item Writing to the Department of Educational Planning and Administration, during the year 2020.
- **4.12.9** The University has conducted 3 days capacity building workshop for IQAC co-ordinators through Faculty Development Centre under PMMMNMTT, on 29.08.2019 to 31.08.2019. The University has also conducted District and Zonal level sports and cultural meets on 10.02.2020 and 11.02.2020.

#### 4.13 ANNAMALAI UNIVERSITY

- **4.13.1** Annamalai University was established in the year 1929 as a unitary, multifaculty, residential University. The University administration was taken over by the State Government by the enactment of Annamalai University Act, 2013. The University was accredited with 'A' Grade by NAAC in 2014.
- **4.13.2** The University offers various on-campus programmes, which include Ph.D., M.Phil., Postgraduate, Undergraduate, P.G. Diploma and Diploma courses through 52 Departments of Teaching under the Faculties of Arts, Science, Marine Sciences, Indian Languages, Education, Fine Arts, Engineering and Technology, Agriculture, Medicine and Dentistry.
- **4.13.3** Till date, 1,158 Teaching and 2,933 Non-Teaching Surplus Staff have been deployed to Government Arts and Science Colleges / Government Engineering Colleges / Government Polytechnics / various State Universities and Government Organizations, for a period of 3 years on agreement basis.

- **4.13.4** In the academic year 2019-20, the University had on its roll 1,62,985 students in total, of which 21,866 students are in the Regular Mode (On-Campus) and 1,41,119 students are in the Distance Mode (Off-Campus).
- **4.13.5** The Choice Based Credit System facilitates choice of electives across disciplines. Value Added Courses are also offered in addition to the prescribed curriculum to enhance the employability skills of students.
- **4.13.6** Outcome Based Education has been successfully implemented for all Programmes offered across all the disciplines of study. The Bloom's Taxonomy Model has been incorporated with mapping of Programme Specific Outcomes (PSOs), Programme Outcomes (POs) and Course Outcomes (COs).
- **4.13.7** The National Institutional Ranking Framework, NIRF-2019 has ranked the University in the band 101-150 in the overall category as well as in the University Category. In the Pharmacy Category the ranking is 12<sup>th</sup> at

the All India level. In the Medical Category, the rank secured is 25.

- **4.13.8** "The Times Higher Education World University Ranking 2020" has ranked Annamalai University in 1000+ for Overall category. In the Subject category Ranking, 2019, the University is ranked in the band of 501-600 for Life Sciences, 601+ in Pre-clinical, clinical & Health Subjects and 801+ in Physical Sciences.
- **4.13.9** "The QS World University Ranking 2020" has ranked Annamalai University in the band of 291 300 in Asia Ranking and 39 in India Ranking.
- **4.13.10** "The CWTS Leiden Ranking 2019", on scientific impact of Universities and Universities involvement in Scientific Collaboration & Scientific Performance, has ranked the University at 23<sup>rd</sup> position based on the number of publications, and 7<sup>th</sup> based on the proportion of publications.
- **4.13.11** Among the top 212 ranked Institutions for Higher Education in India, the

"SCImago Institutional Ranking (2019)" has ranked Annamalai University as 9<sup>th</sup> in Tamil Nadu and 29<sup>th</sup> in India.

- **4.13.12** Annamalai University has to its credit a total Research Publications of 21,549 which stands testimony to the progress in research. The number of publications as per Scopus is 12,818 with a h-index of 118. Web of Science reports 7,252 Publications with a h-index of 106. The Publication as per PubMed is 3129 and Google Scholar is 19,180. The number of Publications in IEEE is 315.
- **4.13.13** Annamalai University has received a sum of Rs.22.14 crore as grant from various Government Funding Agencies such as UGC SAP, DST-FIST and DST-PURSE.
- **4.13.14** Annamalai University has also received a sum of Rs.7.50 crore as RUSA grant.
- **4.13.15** Thrust has been given recently to network the Alumni as much as possible to harness their experience and expertise for the benefit of the present students especially with

regard to industrial internship, placement training and placement.

- **4.13.16** Alumni contributions amounting to Rs.2.20 crore has been received from the Alumni of Annamalai University for the year 2019-20 in order to establish State- of-the- Art, Seminar Halls and to repair and renovate Heritage Buildings.
- **4.13.17** Under RUSA Scheme, Solar Plant with 200 kWp capacity, which was installed on roof of Shri. Sigappi Aachi Building (Central Valuation Hall) of Annamalai University at a cost of Rs. 1.92 crore, during 2018-19 is partially catering to the power requirements.
- **4.13.18** Annamalai University is the only educational Institution approved by AICTE as National Employment Enhancement Mission (NEEM) facilitator which enables the University to conduct "Internship Programmes" for all Engineering Students.
- **4.13.19** Job Fair was conducted during the month of March 2019. 55 Companies

participated in the Job Fair and about 1,596 students received placement orders.

- **4.13.20** The Centre for Skill Development is offering 2 new B.Voc. Courses, namely, Airport Operations and Aquaculture with an intake of 30 students from the academic year 2018-19 with approval and financial support from UGC.
- **4.13.21** Annamalai University and Directorate of Public Libraries, Chennai have jointly taken up the digitization of rare manuscripts, palm leaf scripts and very old and rare publications that are available at the Sir C.P. Ramaswamy Iyer Central Library, Annamalai University.
- **4.13.22** All the Programmes (B.Sc., M.Sc. & Ph.D.) offered by the Faculty of Agriculture have been accredited by the ICAR, New Delhi.
- **4.13.23** The National Board of Accreditation (NBA) have accredited the B.E. Programmes in Civil, Civil & Structural, Mechanical and Electronics & Communication.

#### **5. TAMIL NADU ARCHIVES**

- **5.1** Tamil Nadu Archives formerly known as Madras Record Office was established in 1909. As it is a hub of vast collection of records from various Departments of the erstwhile Board of Revenue, the Secretariat, records from Collectorates, District Courts and the Departments dating from 1670, it is not mere a storehouse of data but a repository of great knowledge. As a storehouse of vast and diverse collection of rare books dating from 1633 and valuable documents in Dutch, Danish and Persian language, the Tamil Nadu Archives is a non-negotiable destination for knowledge of history of the land in its various dimensions. This Library has an extensive collection of 2.3 lakh books and periodicals that attracts researchers, academicians and historians from universities and colleges across the globe for research and reference.
- **5.2** The District Gazetteers of various Districts of Tamil Nadu are published by the Tamil Nadu Archives periodically. To facilitate preservation of records across the State, 6 District Record Centres are functioning in Thanjavur,

Coimbatore, Cuddalore, Madurai, Salem and Tiruchirappalli. As preservation of knowledge is preservation of civilization, the Tamil Nadu Archives has taken up the onerous task of preserving documents for future generations. The Archives employs scientific tools to achieve this and through scanning, microfilming, binding, digitizing and other traditional tools which preserves the knowledge that has been stockpiled with the institution very effectively.

- **5.3** In continued effort towards digitization, of mended records has Scanning implemented during the year 2016-2019 at a cost of Rs.40.00 lakh. Scanning and microfilming of records with the Central Assistance of Rs.47.00 lakh being Central Government share of 75% and 25% State Government share was implemented during the year 2016-17. A sum of Rs.40.43 lakh has been sanctioned during the year 2018-19 under Central Financial Assistance for Microfilming of records.
- **5.4** Tamil Nadu Archives implemented a project to improve web access to its records and internal networking systems at a cost of

Rs.67.00 lakh over 2 years from 2015-2017 with funding from the Tamil Nadu Innovation Initiatives Fund. The efforts towards digitization have been a continuous process. With the e-Governance Initiative Fund of Rs.105.00 lakh for setting up a digital archiving, the Tamil Nadu Digi Archives was established in 2017, through Tamil Nadu e-Governance Agency.

- **5.5** The Archives has proposed Tamil Nadu Innovation Initiative Schemes for digitization of East India company records, land records and to establish a research and digital information dissemination Centre in the 2019-20 for Rs.12.68 crore. The Planning has Commission approved an outlav Rs.2.46 crore. The Government has sanctioned a sum of Rs.1.00 crore in 2019-20. Consistent efforts are being made to digitize all the records so as to provide online access of records to public / stakeholders / Government Departments.
- **5.6** A Research Hall functions in Tamil Nadu Archives and bonafide scholars from the Universities in India and other Countries are admitted to collect required information and data

for research from the original sources available in Tamil Nadu Archives. From the year 2011, 2,458 research scholars have enrolled.

**5.7** The Tamil Nadu Archives has started issuing copies from its holdings under Right to Information Act, 2005 from the year 2011. In average, the Archives receives 50-80 applications every day and 1200-1500 applications every month. As such, for the past 9 years, more than 65,400 applicants have been benefitted by obtaining required information from Tamil Nadu Archives.

## 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 co-ordination of higher education at the State level and co-ordination of the State level programs with those of the University Grants Commission. The main functions of TANSCHE are preparing prospective plans for Academic Activities, Administrative Reforms, Promoting inter disciplinary Research, Encouraging Art, Culture, Sports and Externships and Industrial Collaborations.

## 6.2 IMPORTANT ACTIVITIES DURING THE YEAR FROM 2017-18 to 2018-19

**6.2.1** Constitution of 'State Integrated Boards of Studies' to provide bank of subjects to play a major role in deciding equivalence for courses and help in the mobility of students and faculty across Institutions.

- **6.2.2** Chairpersons of the State Universities Board of Studies meet periodically for degree equivalence related problems faced by the recruitment bodies and submit their recommendations. In the year 2017-18 alone, remarks on more than 280 items have been sent to the Tamil Nadu Public Service Commission Equivalence Committee for taking decisions regarding equivalence of subjects.
- **6.2.3** Creation of 'Soft Skill Centre' in 62 Government Arts and Science colleges to orient and prepare students for employment.
- **6.2.4** Publication of peer reviewed research articles 'Journal of Humanities and Social Sciences' and 'Journal of Modern Sciences' biannual to expose students and research scholars to the latest knowledge in the field, to share expertise and disseminate knowledge.
- **6.2.5** The Tamil Nadu State Council for Higher Education successfully developed a Bridge Course book titled "The Wor(I)d in Your Stride" for 19 autonomous Government Arts and Science Colleges for first year undergraduate

students for interactive English communication development skill.

- **6.2.6** Networked Digital Library system enables the students to encourage the use of e-books and the resources available in all Colleges and all State Universities.
- **6.2.7** Under Tamil Nadu Innovative Initiatives (TANII), Tamil Nadu State Council for Higher Education has been sanctioned Rs.62.40 lakh for the project, Content and Language Integrated Learning (CLIL) to enhance the Communication Skills.

#### 6.3 ACTIVITIES DURING THE YEAR 2019-20

- 6.3.1 the year 2018-19, Τn an regarding announcement sanction Rs.25.00 crore as Research grant 13 to Universities was made by the Hon'ble Minister for Higher Education. Accordingly, out of 209 applications received from 13 State Universities for research funding and proposals worth Rs.14.22 crore were selected for funding.
- **6.3.2** A new Equivalence Committee was setup under the Chairmanship of the Principal

Secretary to Government, Higher Education Department for the purpose of issuing equivalence to the courses offered by the educational Institutions for the purpose of employment in public services and for pursuing higher studies. A total of 372 issues have been resolved through 105 Board of Studies meetings so far.

**6.3.3** Tamil Nadu State Council for Higher Education (TANSCHE) has constituted the "State Integrated Boards of Studies" in the year 2014, to provide compatibility in courses offered by various Universities, Autonomous Colleges & Deemed Universities in the State. During 2019, State Integrated Boards of Studies (SIBOS) met more than thrice to revise, revamp and update curriculum on par with the world class universities had elaborate discussions and designed new outcome based subject banks for 21 UG courses and 20 PG courses which were uploaded in the TANSCHE website and all State Universities were directed to strictly follow the new State Integrated Boards of Studies subject bank in order to reduce equivalence related problems in future.

- **6.3.4** Every academic year, 25 teachers of University Constituent / Government Arts and Science colleges to encourage their research interest in the developing fields are selected under Minor Research Project scheme. In the academic year 2019-20, 25 teachers were selected and Rs.1.00 lakh per teacher provisionally sanctioned for their Research Project.
- **6.3.5** Student Mini Project is being sanctioned to the final year PG students of University Constituent/Government Arts and Science Colleges to cultivate research interest and promote research attitude among students. Every year, 50 Students Mini Projects are selected with a sanction of Rs.15,000/- for each project amounting to Rs.7.50 lakh per year.
- **6.3.6** The Special Care for Slow Learners to prevent College Dropouts Scheme is being implemented in 24 Government Arts and Science Colleges and University Constituent Colleges to enable students to complete graduation within the stipulated duration of the programme and to prevent the college dropouts. A sum of

- Rs.1.25 lakh per college is allocated every year for this scheme. This special coaching has enhanced the pass percentage of the students in these Colleges.
- **6.3.7** Partial financial assistance was given for Universities / Colleges to organize seminars/ workshops/ conferences at the National and International levels. During the year 2019-20, Rs.7.70 lakh is sanctioned and 46 Government / Aided Colleges and Universities have benefitted out of the scheme.
- **6.3.8** The University Business Collaboration been established in 6 State Centres have Universities - University of Madras, Alagappa University, Bharathidasan University, Bharathiar University, Madurai Kamaraj University and Manonmaniam Sundaranar University to build "Academia-Industry Interface" an and collaborative activities. More than 150 MoUs have been signed between the Universities and Industries to update their curriculum and upscale the students, to meet the demands of the industrial sector.

**6.3.9** State Universities have Centres for International Affairs and have academic collaborations with the Universities in Foreign Countries in terms of Collaborative Research, Faculty Short Term Visits, Student Fellowships, signing of MoUs with foreign Countries etc. Periodical meetings are held with the Registrars/ Coordinators of the International Relations Centre through Video Conferencing enabling the sharing of innovations/ academic tie-ups with Universities. The Universities have International Collaborations with more than 70 Countries for the academic/ research activities.

#### 7. RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA)

**7.1** RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA) scheme is jointly executed by Central and State Governments with Central Share and 40% State share. The objective of RUSA is to enhance the quality of Higher Education of the Country as a whole. In RUSA, Phase-1.0 which was implemented during 2015, an amount of Rs. 428.30 crore was approved by Ministry of Human Resource (MHRD) Development out of which Rs.256.98 crore is Central Share Rs.171.32 crore is State share. A sum of Rs.357.575 crore has been released from the approved amount of which the centre making a contribution of Rs.220.785 crore and the state its contribution of Rs.136.79 crore. The amount utilized so far from the released amount is Rs. 315.99 crore (88.37%).

#### 7.2 RUSA (Phase -2.0)

In 2<sup>nd</sup> Phase of RUSA during the year 2018, an amount of Rs.615.78 crore was approved by MHRD for 66 institutions, of which

Rs.370.58 crore is contributed by the Centre and Rs.245.20 crore by the state to upgrade infrastructure and for universities to promote research, innovation & quality improvement. Out of the approved amount, Rs.116.027 crore has been released of which Rs.71.727 crore is the contribution of the Centre and Rs. 44.30 crore is the State's contribution.

#### 7.3 APPROVED COMPONENT OF RUSA, PHASE-2.0

## 7.3.1 Component 4. Enhancing Quality and Excellence in Selected State Universities

Alagappa University which has a NAAC score of 3.64 has been selected under this component for Rs.100.00 crore out of which Rs.40.00 crore has been released. Out of Rs.100.00 crore an amount of Rs.15.00 crore is earmarked for creating an Entrepreneur hub and crore is allocated for research, Rs.85.00 innovation, quality enhancement and excellence. Entrepreneur Hub can promote the employability of vouth from the periphery Ramanathapuram, Virudhunagar, Sivagangai, Karaikudi, Theni and Thoothukudi. Alagappa University has also proposed to establish research collaboration with foreign Universities under this grant. Out of the released amount of Rs.40.00 crore, an amount of Rs.35.43 crore has been utilized so far.

## 7.3.2 Component-10 Research, Innovation and Quality Improvement

Rs.300.00 crore for 6 State Universities viz., Anna University, Annamalai University, Bharathidasan University, Bharathiyar University, Madurai Kamaraj University and University of Madras have been selected under this component for an amount of Rs.50.00 crore each. Out of the approved grant, Rs.15 crore is earmarked for the creation of Entrepreneur hub and Rs.7.50 crore has been released to each of the universities. Each university has reserved an amount of Rs.35.00 crore for research, innovation and quality improvement. These 6 Universities are moving forward to establish collaboration with foreign Universities in their thrust areas of research.

#### 7.3.2.1 Functioning of Entrepreneur Hub

The Hon'ble Prime Minister innaugrated Entrepreneur Hubs in 7 Universities on 3<sup>rd</sup> February 2019. This Entrepreneur Hub will facilitate easy access of employability for the young graduates. In addition, Entrepreneur hubs can enable the students to be JOB GIVERS than JOB SEEKERS. 130 skill development courses have been organized by the above Universities and 10,012 students have been benefitted.

## 7.3.3 Component 3 Infrastructure Grants to Universities

Tamil University, Thanjavur and Tamil Nadu Physical Education and Sports University, Chennai have been approved Rs.20.00 crore each to upgrade their infrastructure facilities. Out of this, Rs.10.00 crore has been sanctioned to each of these Universities and Rs. 6.20 crore has been utilized so far by the respective Universities. Thiruvalluvar University has been approved recently for funding under this component during the 16<sup>th</sup> Project Approval Board meeting.

#### 7.3.4 Components-8,9, 11 & 13

- 7 Government Arts and Science colleges (autonomous) were approved to receive Rs.35.00 crore at Rs.5.00 crore each under component 8 to enhance excellence.
- 10 Government Arts and Science colleges having NAAC score of 2.5 and above were approved for Rs.20.00 crore at Rs.2.00 crore each under component 9 to upgrade their infrastructure, out of which, Rs.1.00 crore to each 4 Colleges has been utilized so far.
- State as a whole has been approved for equity initiatives under the component 11 for Rs. 5.00 crore and 2 women colleges, Rani Anna Government Arts college, Tirunelveli and Sri Meenakshi Government Arts college, Madurai were approved at Rs.2.50 crore each to construct women's hostel. Out of the approved amount Rs.1.25 crore each has been released and utilized so far.
- State as a whole has been approved for faculty improvement under component 13 for Rs.7.00 crore and 2 Universities,

Bharathidasan University and Madurai Kamaraj University were approved for Rs.3.5 crore each to establish training centre. Out of the approved amount Rs.1.75 crore each has been released.

RUSA has encouraged educational Institutions to move towards accreditation and autonomy in consultation with the Central Government.

#### 8. SCIENCE CITY

**8.1** Science City was formed in the year 1998 by the Government of Tamil Nadu with the objective of popularising the current science and technological developments among the students of Schools and Colleges, Researchers, Teachers and also the members of the Public.

To achieve the aforementioned objectives, Science City organises workshops, seminars and training programmes in science with the help of Eminent Scientists / Technologists / Academicians.

#### 8.2 PROGRAMMES DURING 2019-2020

#### **8.2.1 Summer Training Programmes**

The Summer Training Programmes were organised in the disciplines of Physics, Chemistry, Biology and Mathematics for a period of 21 days during June 2019. Students pursuing these disciplines in Government and Government aided Colleges of the State were selected to undergo this training. The objective of this programme is to promote research and create the scientific temper. It was ensured that

75% students were from rural Tamil Nadu and the remaining 25% students were selected from Colleges in and around Chennai.

#### 8.2.2 Science Workshops

Science City organised a Hands-on Training Programme on "Laboratory Techniques in Plant Sciences / Animal Sciences and Biotechnology" for students pursuing third year B.Sc., in Government and Government Aided colleges in and around Chennai. The programmes were organized for 4 days each during August 2019.

#### 8.2.3 Science Lectures and Demonstrations

Science City organized science based lectures and demonstration in basic Sciences for the benefit of students studying in classes 8 to 12 in Government Schools. 13 such programmes were organized in 6 Government Schools between 14<sup>th</sup> and 31<sup>st</sup> October, 2019.

#### 8.2.4 National Seminar on Basic Sciences

Science City organised a series of five seminars in the disciplines of Environmental Science, Botany, Physics, Chemistry and Zoology for the benefit of postgraduate students studying in Government and Government aided Colleges. One seminar in each discipline was organized for 5 days during November 2019. A total of 900 postgraduate students participated and benefitted from this programme.

#### **8.2.5** Awards

#### a. Scientist Awards

Scientists who have achieved in various disciplines of Science are honoured with the "Tamil Nadu Lifetime Achievement Award for Scientists", "Tamil Nadu Senior Scientists Award" and "Tamil Nadu Young Scientists Award". These Scientists are chosen for their outstanding work in their respective branches of Science.

## b. Best Science Teacher Award for School teachers

The outstanding Science Teachers working in Government / Government Aided Schools in Tamil Nadu who have immensely contributed in the field of teaching Science and guided the

students in science will be given "Best Science Teacher Award".

#### c. Rural Innovator Award

The "Rural Innovator Award" will be given to unique innovations of individuals hailing from rural areas of Tamil Nadu. This Award has been instituted to encourage rural Scientists to come up with new inventions that would be beneficial to society.

The aforementioned three awards will be given during the "Chennai Science Festival 2020".

- **8.2.6** In order to create awareness and popularise Science among School / College students and members of the public in Tamil Nadu, Science City will be bringing out a monthly magazine "Engum Ariviyal" exclusively in Tamil.
- **8.2.7** Eminent scientists who contributed significantly in the area of science will be identified and their expertise and other related particulars will be incorporated in the

"Tamil Nadu Scientists Directory". This will be uploaded in the Science City website shortly.

#### 8.2.8 Chennai Science Festival 2020

The Chennai Science Festival is being organised by the Science City every year continuously since 2008. The Chennai Science Festival involves an array of activities such as a mega Science Exhibition, popular lecture, panel discussion, Science based competitions and so on. The festival is organized for four continuous days and is well attended by more than 5000 visitors, specifically students from Government and Government Aided Schools.

#### 8.2.9 New activities / schemes approved by the State Planning Commission for the year 2019-20, 2020-21, and 2021-22

- Creating "Innovators Hub" in 200
  Government / Government aided schools
  across Tamil Nadu.
- 2. Identifying young Innovators from the 200 Innovation Hubs and organizing "Tamil Nadu Students Science Congress".

3. Organizing Summer Training programmes in Physics, Chemistry, Biology, Mathematics, Environmental Sciences and Earth Science for students pursuing 1<sup>st</sup> year of the postgraduate programme in Colleges / Universities across Tamil Nadu.

## 9. TAMIL NADU SCIENCE AND TECHNOLOGY CENTRE

Tamil Nadu Science and Technology (TNSTC) was established by the Government of Tamil Nadu in the year 1983, as an autonomous body, under the Chairmanship of the Hon'ble Minister for Higher Education. The main objective of the centre is to popularize Science and Technology among the people in general and students in particular. In Chennai, B. M. Birla Planetarium was established in the year 1988. Tamil Nadu Science and Technology Centre has established four Science Centres in Tamil Nadu. Periyar Science and Technology Centre, with eight thematic galleries on Science and Science Parks, was established at Chennai in 1990. Anna Science Centre-Planetarium was established in Tiruchirappalli in 1999. A District Science Centre in Vellore was established in 2011. A Regional Science Centre at Coimbatore was established in coordination with National Council of Science Museums, Department of Culture, Government of India, with 4 galleries, in 2013.

## 9.2 IMPORTANT ACHIEVEMENTS IN 2017-18 AND 2018- 19

#### 9.2.1 Conduct of Science writing workshop

- In the year 2018, Tamil Nadu Science and Technology Centre organized a science writing workshop in coordination with the Department of Science and Technology, Government of India to train young science researchers.
- Through this initiative, Ph.D. students and post-doctoral scholars in all science and technology streams are encouraged to participate in a National competition. The top 100 in this annual competition receive a cash award of Rs.10,000 each, along with a certificate. At the National level, the top three science stories are awarded cash prizes of Rs.1.00 lakh, Rs.50,000 and Rs.25,000 respectively.

#### 9.2.2 SAKURA Exchange Programme

- Under the aegis of the Sakura Exchange Programme, students who won the INSPIRE Award for their performance in National level competitions and Project Competitions (held in New Delhi) were given the opportunity to visit research Institutions in Japan.
- Till date, 15 students from Tamil Nadu have visited Japan under this programme through Tamil Nadu Science and Technology Centre.
- In the year 2019, a student from Chinnalapatti, Dindigul was selected for the Award and visited scientific Institutions in Japan during April 2019. For the year 2020, a student from Karur District has been selected under the scheme.

## 9.2.3 Conduct of Statewide Science Talent Test

In commemoration of the National Science Day, every year Science Talent test is being conducted at different parts of the State, in Tamil and English. Over 2000 school students from 8<sup>th</sup> and 9<sup>th</sup> standards participated in the contests organized in the month of November 2018 and 2019. The winners were provided with book prizes and certificates on National Science Day.

## 9.3 ACTIVITIES / SCHEMES UNDERTAKEN DURING THE YEAR 2019-2020

# 9.3.1 Establishment of a Digital Planetarium with new hemispherical dome at Periyar Science and Technology Centre, Chennai

In order to present the visuals of astronomical objects and celestial events in a dynamic and immersive way, a digital State of the-art-Technology Hybrid Planetarium System has been established at a cost of Rs.10.00 crore.

The Hybrid – Digital Planetarium was inaugurated by the Hon'ble Chief Minister on 19<sup>th</sup> November 2019.

## 9.3.2 Establishment of 'Science on a Sphere' facility at Periyar Science and Technology Centre, Chennai:

Science On a Sphere (SOS) is a spherical projection system which enables the visitors to visualize the climatic changes, wind directions, temperature changes etc., across the Globe. A Science on a Sphere facility which is a miniature illuminated model of the Earth has been established at a cost of Rs.2.50 crore at Periyar Science and Technology Centre, Chennai. It was inaugurated by the Hon'ble Chief Minister of Tamil Nadu on 19th November 2019.

## 9.3.3 Annular Solar Eclipse - Public Observational Programmes and organization of Workshops for Science Communicators

A rare annular solar eclipse occured on 26<sup>th</sup> December 2019 which was seen mainly from parts of Tamil Nadu. Before the event,

Tamil Nadu Science and Technology Centre in coordination with VigyanPrasar, Department of Science and Technology, Government of India, New Delhi organized two-day workshops for Science Communicators in Madurai, Udumalpet, In addition, one-day training Thanjavur. for the College programmes teachers Coimbatore, Dharmapuri, Uthakamandalam, Tirupur, Erode, Karur, Dindigul, Sivaganga, Tiruchirappalli and Pudukkottai on 'Annular Eclipse and safe observational methods' were conducted. Telescopes, solar goggles, Welders glasses, artificial tree, pin-hole image projecting were distributed to aadaets all the ten Government Arts and Science Colleges. Chennai at B. M. Birla Planetarium over 6,000 persons viewed the eclipse safely using the telescope projection and other methods.

# 9.3.4 Establishment of Innovation Hubs in Regional Science Centre, Coimbatore and in Anna Science Centre, Tiruchirappalli.

The objective in view is to encourage science talent in young minds and help them

channelize their innovative scientific ideas. Equipment for carrying out experiments are provided here for the students to innovate. Work towards establishing an Innovation Hub in a newly constructed building in Regional Science Centre, Coimbatore was completed at a cost of Rs.1.80 crore.

Similar Innovation Hub is being developed at Anna Science Centre, Planetarium, Tiruchirappalli at a cost of Rs.1.50 crore. For this purpose, a building of 3000 sq.ft. (by PWD,Technical Education Division) has been completed. The projects are being implemented on 50:50 cost sharing basis by National Council of Science Museums (NCSM), Government of India, (Ministry of Culture) and Tamil Nadu Science and Technology Centre, Chennai. The facilities will be inaugurated this year.

#### 9.3.5 INSPIRE Award MANAK Scheme

Tamil Nadu Science and Technology Centre, in coordination with Department of Science & Technology and National Innovation Foundation (NIF)-India is implementing INSPIRE Award – MANAK (Million Minds Augmenting National

Aspiration and Knowledge) programme Tamil Nadu with the cooperation of the Department of School Education. This is a National Programme implemented for attraction of talent amongst students to study science and pursue careers in research. Under this scheme, presently, an award of Rs.10,000/- (known as INSPIRE MANAK Award) is given to preparation selected student for project/model of showcasing idea participation in the District Level Exhibition & Project Competition (DLEPC). In Tamil Nadu during the past ten years, 80,244 students were honoured with this award. For the year 2019-20 all over the State, 2,302 students were selected by Department of Science and Technology (DST) and National Innovation Foundation (NIF). For these students, District Level contests have already been completed during January 2019. 306 students were selected for the State Level. The State Level Contest will be convened in April 2020. The winners will attend the National Level Exhibition and Project Competition in New Delhi.

#### 9.3.6 Tamil way Science Communication Initiative (Ariviyal Palagai Programme)

In order to communicate Science concepts through Tamil, Tamil Nadu Science Technology Centre in coordination with Vigyan Prasar, Department of Science and Technology, Government of India, New Delhi organized a two day seminar titled "Science in Tamil - Science Communication, Popularization and Extension: Road ahead" during August 2019. In this seminar, about 200 eminent scientists, science communicators, media personnel and book publishers participated. It was proposed to popularise Science through the medium of Tamil by launching the monthly issue of 'Ariviyal Palagai' magazine and also to translate more than 20 original science books into Tamil. The programme was conducted with the financial assistance of Rs. 10.30 Lakh from Vigyan Prasar.

#### 9.3.7 State Level Math Talent Test

In order to encourage students to learn mathematical concepts, a State Level Math Talent Test was organized during January 2020 for the school students in the 5<sup>th</sup> to 8<sup>th</sup> classes. From different places of Tamil Nadu, a total of over 11,000 students participated in the contest. The winners will receive prizes and certificates. Similarly in the years 2018 and 2019, over 6000 students participated each year.

## 9.3.8 Conduct of Exhibition on Water Matters

Tamil Nadu Science and Technology organised a traveling exhibition on Water Matters in collaboration with the US Consulate General Chennai, the Smithsonian Institution, USA and Care Earth Trust, Chennai. The exhibition was inaugurated on 10<sup>th</sup> February 2020. Water Matters exhibition addresses water management practices through interactive exhibits and over 50 panels spread over 300 square meters. This exhibition inspires young people about key issues related to water.

## 9.3.9 Establishment of Science Centre in Kanyakumari

In order to cater to the needs of the people living in Kanyakumari and its adjoining Districts, a Science Centre will be established by Tamil Nadu Science and Technology Centre in Kanyakumari District. Estimated cost up of the Science Centre setting is Rs.15.20 crore. The Capital cost for the above scheme will be shared by Ministry of Culture, Government of India and Government of Tamil Nadu on 50:50 basis. The Government of India has approved the proposal and the work will be commenced shortly.

## 10 TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

10.1 The Tamil Nadu State Council for Science and Technology was formed in the year 1984 as an autonomous apex body by the Government of Tamil Nadu for the development of Science and Technology sector of our State. Various Science and Technology schemes are being implemented by the Council in the areas such as research & development, extension and outreach programmes.

The Government has allocated a sum of Rs.3.52 Crore to the Council during the year In addition, Rs.4.16 Crore has been 2019-20. received from Department of Science and Technology (DST), Government of towards core-grant support to the Council and specific projects in Science and Technology. The above grants enabled the Council to effectively implement Science and Technology Schemes benefitting various stakeholders such as farmers, scientists, researchers, students and public.

#### 10.2 STUDENT PROJECTS SCHEME

The objective of the scheme is to utilize student talent for the tremendous development of Science and Technology. year students of U.G / P.G Engineering/P.G courses of Science / Medicine / Agriculture / Veterinary / Social Sciences are provided with a maximum grant of Rs.10,000/- for carrying out research projects. During the year 2019-20, a budgetary support of Rs.53.68 lakh enabled the support 722 student projects to benefitting 1,700 students of our State. The Department of Science and Technology, Government of India has sanctioned a sum of Rs.89.76 lakh for three years from 2017-18 onwards for this project, and will be continued for this year also.

#### 10.3 TECHNOLOGY DEMONSTRATION PROJECT

project namely Rural Urban Connectivity Centres for Technology Research Livelihood Dissemination. and Sustainability has been sanctioned by the Department of Science and Technology, Government of India at a cost of Rs.5.00 crore for 3 years from 2017-18 onwards. The project has four Technology Demonstration components such as Cold storage, Poly House, Mushroom cultivation and Energy from waste. These units are being established and will be used by students, researchers and farmers. Department of Science and Technology, Government of India sanctioned the also project Photovoltaic - Wind Hybrid Power System to Green Energy -Harness at а cost Rs. 1.94 crore for two years from 2019-20 for demonstrating the use of this system in three places.

#### 10.4 SCIENCE AND TECHNOLOGY PROJECTS

The objective of the scheme is to support researchers and scientists of our State to carry out research projects relevant in the field of science and Technology. Under this scheme, financial support is provided to carryout research in sectors such as Agricultural Sciences, Biological Sciences, Environmental Sciences, Engineering and Technology, Medical Sciences, Physical Sciences, Social Sciences and Veterinary Sciences. During the year 2019-20,

action was taken to support 14 research projects at a cost of Rs.35.00 lakh. During the year 2020-21, another 15 research projects will be supported at a cost of Rs.35.00 lakh. Department of Science and Technology, Government of India has sanctioned a sum of Rs.50.00 lakh for the year 2018-19 as project related grants to the State Council and 25 research projects. During the year 2019-20, a sum of Rs.1.00 crore was sanctioned as project related grant and action was taken to support new projects.

#### 10.5 YOUNG STUDENT SCIENTIST PROGRAMME

School students from 9<sup>th</sup> standard are motivated to take up Science & Research in future as their career. 40 students from each district participate in this programme. Selected students from various districts are housed in a reputed College/ University with research facilities and exposure is given on various aspects of Science and Technology. During the year 2019-20, action has been taken to implement the scheme in 16 Districts to benefit

640 students with a budget of Rs.25.00 lakh.

### 10.6. YOUNG SCIENTISTS FELLOWSHIP SCHEME

The objective of the scheme is to enable researchers to update their knowledge In this scheme, scientists and research. researchers of our State below 40 years of age are provided with a fellowship of Rs.10,000/- per month for a period of 2 to 6 months in addition their regular salary by their parent Institutions. They take-up training or learn instrumentation techniques/ sophisticated modern research methodologies or collaborative research work with senior scientists in the host Research Centers located in other States. During the year 2019-20, action was taken to support 12 researchers with at a cost of Rs.3.00 lakh.

### 10.7 PARTIAL ASSISTANCE FOR SEMINAR / SYMPOSIUM / WORK SHOP

Partial financial assistance is provided to educational and research Institutions in the

organize seminar, symposia State to and workshops in the field of Science and During the year 2018-19, the Technology. budget allocation for the programme for financial assistance for conduct of Seminar/ Symposia/ Workshop was enhanced from Rs.10.00 lakh to Rs.25.00 lakh thereby supporting benefitting 9500 beneficiaries. programmes During the year 2019-20, action has been taken to support 125 programmes benefitting 9,500 students with a budget of Rs.25.00 lakh.

### 10.8 POPULARISATION OF SCIENCE AND TECHNOLOGY

The objective is to popularize S&T among people of our State. Financial support is provided to Universities, Colleges and Voluntary Organizations to propagate Science through conduct of Science Exhibitions, Training Programmes and Lectures on various aspects of Science and Technology. During the year 2019-20, the Council supported 56 organizations at a cost of Rs.10.00 lakh benefitting 4,500 people.

#### 10.9 TRAVEL GRANT FOR YOUNG SCIENTISTS

The scheme provides opportunities to young to present scientists their research International/ National conferences. Young universities, scientists and researchers in colleges and research institutions of Tamil Nadu below 40 years of age are provided with 50% of air fare in case of international conferences and 100% train fare in case of National conferences. During the year 2019-20, action was taken to support 10 scientists with a total cost of Rs.2.50 lakh.

### 10.10 ASSISTANCE FOR SCIENCE AND TECHNOLOGY PUBLICATIONS

The objective is to bring more S&T publications in Tamil. This financial assistance is provided to organizations, scientists and authors for publishing science magazines for the benefit of children to enable science and technology publications in Tamil and also to bring out science related books in Tamil for the general public. During the year 2018-19, the budget allocation for the programme for science and technology publications in Tamil was enhanced

from Rs.0.50 lakh to Rs.3.00 lakh thereby supporting around 15 publications. During the year 2019-20, action was taken to support 15 publications with a budget allocation of Rs.3.00 lakh.

### 10.11 TAMILNADU SCIENTISTS AWARD (TANSA)

scientists and State researchers are recognized and honoured through TANSA Award Scheme. The Award consists of a cash prize of Rs.50,000/- and a citation. TANSA is given in 10 disciplines of (i) Agricultural Science(ii) Biological Science (iii) Chemical Science Engineering and Technology Environmental Science (vi) Medical Science (vii) Mathematical Science (viii) Physical Science (ix) Social Science and (x) Veterinary Science. During the year 2019-20, action was taken to select budget 10 scientists with а Rs.7.00 lakh.

#### **10.12 CREATION OF SCIENTIFIC AWARENESS**

The objective of this scheme is to create awareness among the self- help groups, farmers

and students in the field of organic farming manure like vermicompost, spirolina production, value added products like millets, organic cleaning materials and so on. Action was taken to organize 10 programmes in the year 2019-20 in 10 Districts at a cost of Rs.6.50 lakh benefitting 1,750 people.

## 10.13 QUALITY IMPROVEMENT OF SCIENCE EDUCATION IN RURAL SCHOOLS

The objective of this scheme is to train the school teachers who are handling the Science subjects of 6<sup>th</sup> to 8<sup>th</sup> standards to update their knowledge of the current syllabus and new areas. This programme is conducted for a period of 5 days with equal importance to practicals. During the year 2019-20, action was taken to organize 10 programmes in 10 Districts with a budget of Rs.9 lakh. The programme benefitted 500 teachers.

### 10.14 DISSEMINATION OF INNOVATIVE TECHNOLOGY

The objective of this scheme is to provide livelihood skills through science and technology training. During the year 2019-20, action was taken to support 18 programmes at a cost of Rs.9.00 lakh benefitting 480 people.

### 10.15 APPLICATION OF SCIENCE AND TECHNOLOGY IN RURAL AREAS

The objective of the scheme is to transfer science and technology benefits to end users. For this, through selected educational and research institutions, the applications of science and technology are demonstrated in the rural areas in order to make it accessible to rural masses. During the year 2019-20, action was taken to organize 10 programmes in 10 Districts at a cost of Rs.10.00 lakh, the beneficiaries being 4,000 people.

# 10.16 SCIENCE AND TECHNOLOGY CAPACITY BUILDING FOR INDUSTRIAL NEEDS

Through this scheme, final year Polytechnic and Engineering students are trained and motivated for self-employment. This programme is organized with the active collaboration of industries and colleges including Polytechnics. During the year 2018-19, the budget allocation enhanced from Rs.10.00 thereby Rs.22.50 lakh 15 supporting benefitting 4,500 final vear programmes students. During the year 2019-20, action was taken to organize 15 programmes covering 15 Districts and benefitting 4,500 students at a cost of Rs.22.50 lakh.

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

The objective is to financially support relevant research taken up by research students in colleges which do not have funding. Proposals received from research students of

various colleges are evaluated and selected students are supported. During the year 2018-19, the financial assistance for the programme to support research scholars in colleges was enhanced from Rs.15.00 lakh to Rs.30.00 lakh benefiting 10 research scholars instead of 5. During the year 2019-20, action has been taken to support 10 research scholars with a budget of Rs.30.00 lakh.

# 10.18 IMPROVEMENT OF SCIENCE AND TECHNOLOGY INFRA-STRUCTURE FACILITIES AT GOVERNMENT COLLEGES

Through this scheme, infrastructural facilities such as laboratory equipment and instrument facilities in Government colleges of our State are improved through financial support. During the year 2019-20, action was taken to implement this programme with the budget of Rs.15.00 lakh benefitting 3 Government Colleges.

### 10.19 INDIA INTERNATIONAL SCIENCE FESTIVAL (IISF)

The 5<sup>th</sup> edition of IISF-2019 was organized for 4 days during November, 2019 at Science City, Kolkata. The Tamil Nadu State Council for Science and Technology displayed all the activities of the Council, achievements and its contributions to science and technology.

#### **10.20 PATENT INFORMATION CENTRE**

With the financial support from Department of Science and Technology (DST), Government of India, a Patent Information Centre (PIC) has been established in the Council. Through the PIC, 14 Intellectual Property (IP) Cells are formed so far in the Universities and higher educational Institutions of Tamil Nadu for the welfare of the academicians to promote IP filings. During the year 2019-20, Geographical Indications (GI) tag of our State namely, "Dindigul Lock" was obtained. In association with Mother Teresa University (G1) tag for "Kodaikanal Malai Poondu" was obtained through Information Centre. the Patent PIC facilitated 33 patents, 11 designs, 26 copyrights and 1 trade mark from various strata of our State. 23 awareness programmes were organized in various parts of our State.

### 10.21 CELEBRATION OF NATIONAL MATHEMATICS AND SCIENCE DAY

Tamil Nadu State Council for Science and Technology with financial assistance of National Council for Science and Technology Government of India has celebrated the "National Mathematics Day (22nd December)" to mark the birth anniversary of great Indian Mathematical Genius Srinivasa Ramanujan and Science Day (28th February)" to commemorate the valuable contribution made by Scientist Bharat Ratna Sir C.V. Raman, in Vellore, Kanchipuram and Namakkal Districts during 2019-20. Quiz programmes, workshops, exhibitions and awareness rally were organized. About 5,000 active students of 100 Schools from different districts participated in different events and about 20,000 students and general public visited the whole event.

### 10.22 STEM ACTIVITIES FOR SCHOOL CHILDREN

STEM is an initiative which aims at ensuring the learning of Science practically through hands-on demonstrations technical and experience. Interested students from standard VI to VIII, studying in schools are selected and they are given detailed exposure in the field of Science, Technology, Engineering Mathematics. The students will be trained for 3 days for obtaining maximum exposure to the science related technology. The Department of Science and Technology, Government of India has supported this initiative with a sum of Rs.19.00 lakh for the year 2019-20.

#### 11. TAMIL NADU STATE URDU ACADEMY

- **11.1** The Government of Tamil Nadu established Tamil Nadu State Urdu Academy for promotion of Urdu language in the State. The Hon'ble Minister for Higher Education is the Chairperson of the Academy. At present, Urdu language is offered in Colleges in the State.
- **11.2** The Functions of the Academy include conduct of Mushairas in association with National Chamber of Commerce and grant of award and cash prize to the poets and State rank holders in Urdu language.

### 12 TAMIL NADU STATE COUNCIL FOR TECHNICAL EDUCATION

**12.1** As a large number of institutions of technical education came up in the State of Tamil Nadu, the State Government decided to establish a separate Council for Technical Education to advise the Government in matters relating to Technical Education in the State and the Tamil Nadu State Council for Technical Education Act, 2010 was enacted in the Tamil Nadu Assembly.

#### 12.2 ACTIVITIES

Tamil Nadu State Council for Technical Education (TANSCTE)

- Coordinated the conduct of Special Training programe in English language (Bridge Course) at Anna University.
- Distributed Educational resources available with Tamil Nadu State Council For Technical (TANSCTE), Education on Technical English, Engineering Physics and Engineering **Mathematics** to 500 Engineering Colleges.

- In active collaboration with Anna University and TEQIP Facilitation Unit at DOTE, organized an international seminar on "Present Trend of Hybrid Pedagogy in English Language" imparted by Professors from Cambridge was organized.
- the conduct of Technical Coordinated behalf of Tamil Nadu Examination on Service Commission Public for recruitment of Technical Assistants Tamil Nadu Fisheries Engineering Subordinate Service in the year 2017-18.
  - Offered Technical opinion to Tamil Nadu Public Service Commission regarding the equivalence of various Technical Degrees on more than 25 issues for the purpose of prescribing qualification for employment in Tamil Nadu Government Services.
  - Conducted Placement Officers Training Program for all Principals of Engineering, Polytechnic Colleges and their Placement Officers along with field visit to IIT Research Park, Tharamani and SIEMENS

Research Lab, Chrompet during September – October 2019.

 Created a Road map containing 10 Key Result Areas for improvement of Technical Education was prepared as a perspective plan and submitted to Government for approval for implementation.

**K.P.Anbalagan**Minister for Higher Education

#### **TECHNICAL EDUCATION**

#### DETAILS OF STUDENTS ADMITTED TO FIRST YEAR B.E. / B.TECH. / B.ARCH. DEGREE COURSES IN ENGINEERING COLLEGES FOR THE YEAR 2019-20

TYPES OF COLLEGES	Institutions	ос		BC (Others)		BC (Muslim)		MBC / DNC		sc		SC (A)		ST		TOTAL		ıl ted
	No. of Ins	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	Total Admitted
Government Colleges	10	56	28	968	630	108	26	641	277	321	233	66	29	23	5	2183	1228	3411
Govternment Aided Colleges	3	244	84	956	551	58	27	343	166	197	110	38	16	14	7	1850	961	2811
Self Financing Colleges	554	8102	3092	29311	15262	3315	851	14789	6077	8218	5150	1341	979	338	203	65414	31614	97028
Anna University Constituent Colleges	20	320	174	1546	944	194	63	975	489	523	321	60	44	12	17	3630	2052	5682
TOTAL	587	8722	3378	32781	17387	3675	967	16748	7009	9259	5814	1505	1068	387	232	73077	35855	108932

### TECHNICAL EDUCATION DETAILS OF STUDENTS ADMITTED TO FIRST YEAR DIPLOMA COURSES IN POLYTECHNIC COLLEGES FOR THE YEAR 2019-20

TYPES OF INSTITUTIONS	No. of Colleges	00	•	BC (O	thers)		C slim)	MBC/	DNC	S	С	sc	(A)	s	Т	тот	ΓAL	рe
		BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	Total Admitted
Government Institutions	51	114	26	4081	580	493	31	4415	556	2403	444	213	86	81	15	11800	1738	13538
Government Aided Institutions	34	308	40	4404	466	589	29	2670	239	1093	170	165	37	25	5	9254	986	10240
Affiliated Institutions	4	13	-	70	-	6	-	82	-	54	-	3	•	3	-	231	-	231
Self Financing Institutions	404	3372	409	17431	1343	2805	107	13587	914	12663	1678	1256	237	396	83	51510	4771	56281
Hotel Management & Catering Technology Institutions	14	-	-	12	-	2	'	11	-	5	-	-	•	-	-	30	,	30
Total	507	3807	475	25998	2389	3895	167	20765	1709	16218	2292	1637	360	505	103	72825	7495	80320

### COLLEGIATE EDUCATION NUMBER OF STUDENTS ADMITTED IN ARTS AND SCIENCE COLLEGES AND COLLEGES OF EDUCATION DURING THE YEAR 2019-20

Types of Colleges	ADMITTED STRENGTH										
Types of Colleges	UG	PG	M.Phil.	B.Ed.	Ph.D.	Total					
Government Colleges	83432	16580	1286	927	691	102916					
Government Aided Colleges	75519	13992	1235	1730	612	93088					
University Constituent Colleges	14399	1325	3	-	22	15749					
Self Financing Colleges	145080	19160	5148	51350	764	221502					
Total	318430	51057	7672	54007	2089	433255					

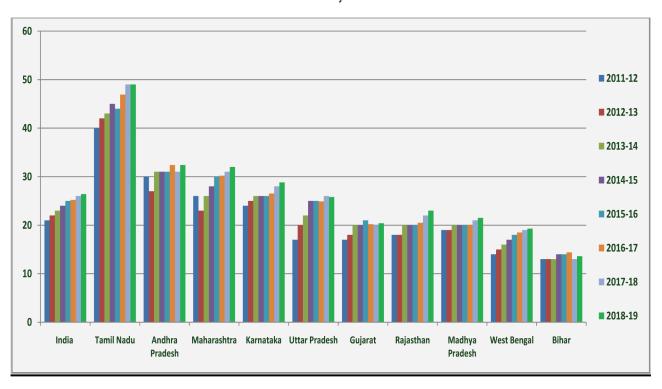
#### UNIVERSITIES NUMBER OF STUDENTS STUDYING IN THE UNIVERSITY CAMPUS DURING THE YEAR 2019-20

OL NI-	Name of the Heliconsite	Studen	ts Strength	Total	
SI. No.	Name of the University	Male	Female	Total	
1	University of Madras	1,401	1,959	3,360	
2	Madurai Kamaraj University	729	719	1,448	
3	Anna University	4,958	3,359	8,317	
4	Bharathiar University	1,221	1,843	3,064	
5	Bharathidasan University	918	1,314	2,232	
6	Mother Teresa Women's University	-	726	726	
7	Alagappa University	1,715	3,165	4,880	
8	Manonmaniam Sundaranar University	771	1,547	2,318	
9	Periyar University	710	1,276	1,986	
10	Tamil Nadu Open University	37	45	82	
11	Thiruvalluvar University	80	206	286	
12	Tamil Nadu Teachers Education University	35	40	75	
13	Annamalai University	11,739	10,127	21,866	
	TOTAL	24,314	26,326	50,640	

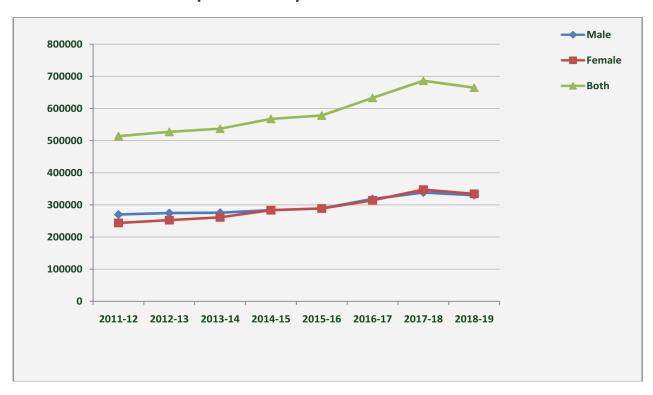
#### UNIVERSITIES NUMBER OF STUDENTS STUDYING IN THE DISTANCE EDUCATION DURING THE YEAR 2019-20

		Stu				
SI.No	Name of the University	Male	Female	Trans- gender	Total	
1	University of Madras	33,252	37,189	11	70,452	
2	Madurai Kamaraj University	7,063	5,502	-	12,565	
3	Anna University	1,264	1,033	-	2,297	
4	Bharathiar University	14,397	13,773	-	28,170	
5	Bharathidasan University	11,888	21,034	-	32,922	
6	Mother Teresa Women's University	-	3,464	-	3,464	
7	Alagappa University	27,083	26,542	-	53,625	
8	Manonmaniam Sundaranar University	5,361	5,830	1	11,192	
9	Periyar University	6,914	6,305	-	13,219	
10	Tamil Nadu Open University	13,658	17,985	3	31,646	
11	Thiruvalluvar University	-	-	-	-	
12	Tamil Nadu Teachers Education University	-	-	-	-	
13	Annamalai University	70,276	70,843	-	1,41,119	
	TOTAL	1,91,156	2,09,500	15	4,00,671	

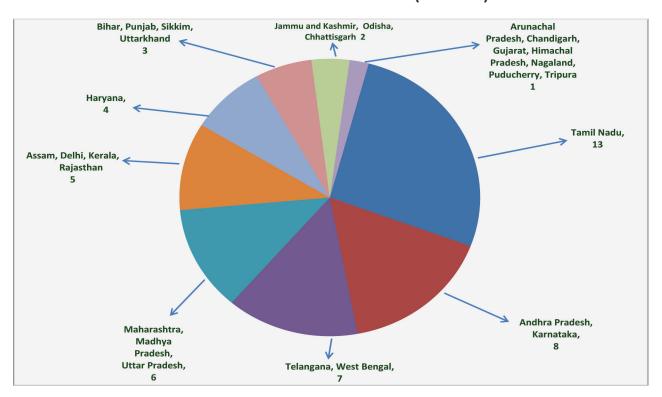
#### **GROSS ENROLLMENT RATIO IN INDIA, TAMIL NADU AND MAJOR STATES**



#### **ENROLLMENT (GENDER WISE) FOR SC AND ST CATEGORY STUDENTS**

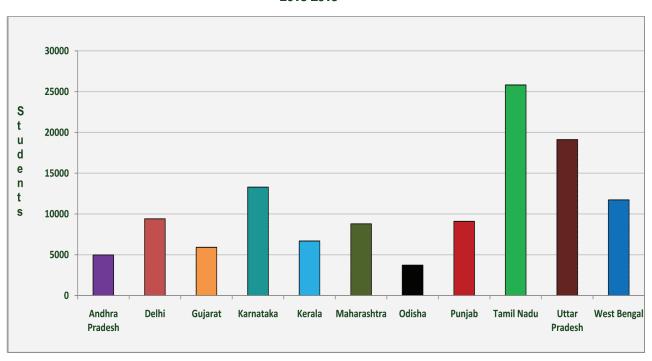


#### STATE-WISE DUAL MODE UNIVERSITIES (2018-2019)



#### STUDENTS ENROLLMENT AT PH.D. LEVEL DEGREE FOR THE YEAR $\,$

2018-2019



### STUDENTS ENROLLMENT AT M.Phil. LEVEL DEGREE FOR THE YEAR 2018-2019

