



HIGHER EDUCATION DEPARTMENT

POLICY NOTE 2021 - 2022

DEMAND No. 20

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MINISTER FOR HIGHER EDUCATION

©
Government of Tamil Nadu
2021

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POLICY NOTE

DEMAND NO.20 - HIGHER EDUCATION 2021-22

1. INTRODUCTION

“Wisdom is a weapon to ward off destruction; it is an inner fortress which enemies cannot destroy”.

(Thirukkural 421)

1.1. VISION

The Government of Tamil Nadu envisages to establish itself as a model to other States in higher education by adopting progressive educational policy and reforms as per the guidance of our Hon'ble Chief Minister.

1.2. The development of any State depends mainly on highly qualified and skilled workforce, who shall satisfy the emerging demands and also the latest developments in the world. The Government shall, therefore, take

all possible measures to provide a gateway to number of opportunities for the youth and create purpose to one's life.

1.3. Access to higher education is indeed one of the hallmarks of the Tamil Nadu educational system. True to the spirit of egalitarianism and social justice, the policies are inclusive and seek to bring all sections into the ambit of education. The vertical and horizontal axes of growth are taken into consideration in working towards the development of higher education in the State, thereby striving towards achieving equitable and high quality education. In the face of many challenges, the Government strives to reach the youth of the State through strategic interventions in education to leverage their social, intellectual and economic wellbeing.

1.4. GER (GROSS ENROLMENT RATIO)

1.4.1. Tamil Nadu's impressive GER of 51.4 against the national average of 27.1, is a dividend of the inclusive policies in higher education in the State. Among the major States Tamil Nadu has achieved the "number one" position, in all categories of the national GER in higher education. The GER of women is 51 against the national value 27.3. The GER of Scheduled Caste men and women are 38.8 and 40.4 respectively. The GER of Scheduled Tribe men and women are 43.8 and 37.7 respectively, which are almost double the national average.

1.4.2. The exponential growth reflected in the GER could be traced to schemes like free education (in Government Arts and Science Colleges upto postgraduate level), first-generation tuition fee waiver, post matric scholarships, distribution of free of cost laptops to polytechnic college students and financial

assistance to economically weaker students from Chief Minister's Public Relief Fund and free SIM cards for all students of Government, Government Aided Colleges and students who avail scholarship in Self financing Colleges are provided with 2 GB data per day to attend online classes during the pandemic.

1.5. LEARNING, TRAINING AND INNOVATION SUPPORT

1.5.1. COVID-19 posed its share of challenges to every sphere of life, including higher education. As with all the departments of the State, the Higher Education Department also came up with a humanitarian response to the people of the state by reaching out through online education, the faculty of colleges were trained to optimize the use of online platforms in keeping the students intellectually engaged at a difficult time in the history of the State, the nation and the world at large.

1.5.2. Apart from training the faculty and conducting regular online classes, colleges and universities made a significant contribution through online programs to nurture the talents of students by conducting various activities, training programmes, webinars and competitions.

1.5.3. The Tamil Nadu State Council for Higher Education (TANSCHE) extended 100% financial support to meritorious research projects undertaken by the faculty of colleges. A sum of Rs.25 crore was released to support 89 projects. It is indeed commendable that these projects are oriented towards development and address 16 of the 17 Sustainable Development Goals (SDG).

BUDGET ESTIMATE FOR THE YEAR 2021 - 22

Under Demand No.20 Higher Education,
the Total Outlay: Rs.5369.09 crore.

Sl. No.	Head of Department	Amount Allotted (Rs. in crore)
1.	Higher Education Department, Secretariat	6.58
2.	Directorate of Collegiate Education	3126.43
3.	Directorate of Technical Education	1317.54
4.	Universities	767.98
5.	Tamil Nadu Archives	14.27
6.	Tamil Nadu State Council for Science and Technology	3.82
7.	Tamil Nadu Science and Technology Centre	5.51
8.	Science City	2.76
9.	Tamil Nadu State Council for Higher Education	123.86
10.	Tamil Nadu State Council for Technical Education	0.34
	Total	5369.09

2. TECHNICAL EDUCATION

2.1. INTRODUCTION

Technical Education plays a vital role in human resource development of the country by creating skilled manpower, enhancing industrial productivity and improving the quality of life. It is instrumental in bringing about economic growth of the developing countries by way of creating suitable manpower in tune with the needs of the industry and society.

Technical Education imparts degree and diploma courses and programmes in engineering & technology, management, architecture, town planning, pharmacy, applied arts & crafts, hotel management and catering technology.

Engineering education integrates scientific and engineering principles. It not only contributes in economic growth, but also contributes to medical care, national security

systems and other beneficial areas. The aim of polytechnic education is to create a pool of skill-based manpower and to serve as a bridge between technicians and engineers. Polytechnic education has responded to the challenges of industrialization for self-reliance.

The Directorate of Technical Education was established on 14th October 1957. It monitors and coordinates the development of technical education and plays an important role in 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 and Office Automation.

The State has large number of technical institutions at Degree and Diploma level as indicated below:

NUMBER OF TECHNICAL INSTITUTIONS IN TAMIL NADU (2021-22)				
Category	Degree level Colleges	Diploma level Colleges		Total
	Engineering and Architecture Colleges	Polytechnic Colleges	Hotel Management & Catering Institutions	
Government Colleges	10	51	-	61
Government Aided Colleges	3	34	-	37
Self Financing Colleges	554	406	14	974
Affiliated Type Colleges	-	4	-	4
Anna University Colleges	20	-	-	20
TOTAL	587	509		1096

2.2. ACHIEVEMENTS AND INITIATIVES

2.2.1. GOVERNMENT TECHNICAL INSTITUTIONS

10 Government Engineering Colleges and 51 Government Polytechnic Colleges are functioning in Tamil Nadu under the control of Directorate of Technical Education. The Government of Tamil Nadu have established four new Government Engineering Colleges and 29 new Government Polytechnic Colleges in the last 15 years to provide technical education for the economically weaker sections of the society.

At present, 39,765 diploma students are studying in 51 Government Polytechnic Colleges, 13,422 Under Graduate students are studying in 10 Government Engineering Colleges, 738 Post Graduate students are studying in six Government Engineering Colleges and 932 research scholars are pursuing their Ph.D.

2.2.2. UNDER GRADUATE (UG) AND POST GRADUATE (PG) COURSES IN GOVERNMENT ENGINEERING COLLEGES

There are 10 Under Graduate Engineering Courses in the 10 Government Engineering Colleges and 17 Post Graduate Engineering Courses in six Government Engineering Colleges. The above courses not only aid the students to strengthen their fundamental knowledge, but also help them to gain the required knowledge in Engineering as per the needs of Industries and thereby make them employable.

2.2.3. WAIVER OF TUITION FEES FOR DIPLOMA STUDENTS

Students who take up diploma courses in Government Polytechnic Colleges hail from a humble background, so they pursue technical education to find employment in industrial sectors, in order to earn their livelihoods and support their families. Hence from the year

2008-09 onwards, Government have exempted the diploma students studying in Government Polytechnic Colleges from paying the tuition fees. So far 4,26,828 students have been benefited under this scheme.

2.2.4. ISSUE OF FREE TEXT BOOKS

From the academic year 2007-08 onwards, free text books are being distributed to all the first year diploma students of Government Polytechnic Colleges. Books for all the four major subjects in the first year diploma programme namely English, Engineering Mathematics, Engineering Physics and Engineering Chemistry are being distributed to help the polytechnic students to excel in their studies. So far 1,36,933 students have been supplied text books amounting to Rs.198.61 lakh, free of cost.

2.2.5. IMPLEMENTATION OF SHIFT SYSTEM IN GOVERNMENT POLYTECHNIC COLLEGES

Government of Tamil Nadu have issued orders to implement shift system in 14 Government Polytechnic Colleges from the academic year 2009-10 with an additional sanctioned intake of 3,360. Because of introduction of shift system, meritorious poor students from rural areas were benefitted by enrollment in diploma courses. So far 33,027 students have been benefitted under this scheme.

2.2.6. ISSUE OF FREE BUS PASS

To make it convenient to reach the institution from their homes, all diploma students studying in Government Polytechnic Colleges are given free bus pass by the Government. So far 4,19,828 students have been provided with free bus pass.

2.2.7. E-LEARNING VIDEO MODULES UPLOADED IN "YOUTUBE" BY DoTE FOR THE BENEFIT OF DIPLOMA STUDENTS

E-learning video modules prepared by Polytechnic Lecturers played a vital role in facilitating all the Diploma students especially from rural areas to learn their diploma subjects anytime and anywhere. All the 720 Video modules were prepared through Educational Multi-Media Research Centre (EMMRC) of Anna University. The e-learning modules prepared and uploaded were very useful during the pandemic for the students to continue their education without interruption. Also preparation of e-learning resources enabled the faculty to enhance the teaching learning process.

2.2.8. UPGRADATION OF DIPLOMA CURRICULUM AND SYLLABI FOR BETTER EMPLOYMENT

The Curriculum and syllabi for diploma in Engineering & Technology and special programmes are revised once in four years by the subject experts to cater to the needs of the industry. The syllabus has been revised for first year diploma programmes under N-Scheme and implemented in the academic year 2020-21. Subsequent to that, syllabus revision committees have been constituted for various diploma programmes, comprising a senior faculty from polytechnic college, a professor from higher learning institution and practicing professionals (industry experts) in the respective field of engineering industries. These committees have revised the curriculum and syllabi for II & III year diploma programmes, based on the inputs of industry experts to enhance the employability of diploma holders.

The recommendations of the experts and the action taken to incorporate the same in the curriculum are given below:

Branch	Suggestions / Recommendations of the Industrial Experts	Action Taken on the Recommendations
Civil Engineering	To include new trends in Concrete Technology with admixtures and mix design	The new Subject Concrete Technology has been introduced
	To include Energy audit Environmental impact assessment, Energy Conservation and green building technology.	A new subject Sustainable and Green building Technology has been introduced
Mechanical Engineering	To include new trends in technologies like Industrial Robotics, 3D printing and Industrial Automation domains.	Two new elective subjects (i) Industrial Robotics and 3D printing and (ii) Mechatronics (theory and practical) has been introduced.
	To include Shop floor management courses, as more shop floor engineers are required in manufacturing industries.	Production and Quality management subject has been introduced.

Electrical & Electronics Engineering	To include Non-Conventional Energy Sources and alternate energy sources.	Renewable Energy Sources Subject has been introduced
	To include Energy Efficient Modules and Energy saving and auditing.	Energy Conservation and Audit has been introduced.
Electronics Communication Engineering	To Include IoT	IoT - Block diagram of Home Automation has been introduced
Computer Science Engineering & Information Technology	To include IT administration along with hands on experience.	System Administration and Network Services System with Practical subjects has been introduced.
	To include Web Programming for web development.	Web Design And Programming has been introduced.
	To include Network QOS/Traffic Engineering, Maintenance and Synchronization	Computer Networks and Cyber Security has been introduced.

The revised curriculum and syllabi will be implemented from the academic year 2021-22 for second year diploma students. The revised

curriculum and up-graded syllabi contents will help the student community in securing better employment and also fulfill the expectations of the industries.

During the previous academic year, new diploma courses like Fire Technology & Safety, Technician X-Ray Technology, Medical Laboratory Technology, Food Processing & Preservation have been started and curriculum & syllabi have been designed to enhance the employability of the students.

2.2.9. DISTRIBUTION OF FREE OF COST LAPTOPS

The Scheme of distribution of free of cost Laptop Computers was introduced by the Government of Tamil Nadu 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 10th standard, free of cost Laptops are distributed to them in first year of study.

Totally 2,03,802 free of cost Laptop Computers have been distributed to the students of Government / Government Aided Engineering and Polytechnic Colleges.

2.2.10. POST MATRIC SCHOLARSHIP SCHEME

Post Matric Scholarship Scheme jointly implemented by the Central and State Governments for the students belonging to SC, ST and SC converted into Christianity was introduced with an objective to uplift the socially disadvantaged students by providing them access to free higher education at all levels. 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 minority institutions). Directorate of Technical Education is co-ordinating with Adi Dravidar and Tribal Welfare Department for successful implementation of this scheme. So far, an amount of Rs. 4,889.46 crore has been provided as Post Matric Scholarship for 7,79,097 Engineering College students and Rs.1,356.70 crore for 4,73,558 Polytechnic College Students.

2.2.11. FIRST GENERATION GRADUATE TUITION FEE CONCESSION

To enable students from all sections of society to take up professional courses, the Government have taken several initiatives and one such initiative is tuition fee concession to "First Generation Graduate" students admitted in Engineering Colleges in the State through Single Window Counselling. So far 22,13,556 students

have been provided tuition fees concession to the tune of Rs.44,08.54 crore benefited under this scheme.

2.2.12. OPPORTUNITY FOR SRILANKAN TAMIL REFUGEES IN ENGINEERING ADMISSION

The Sri Lankan Tamil refugee students staying in Tamil Nadu are also permitted to participate in the Counselling for admission to B.E./B.Tech and Post Graduate courses viz., M.B.A./M.C.A./M.E./M.Tech. on par with students of the State.

Also for the eligible Sri Lankan Tamil refugee students, concession in tuition fee has been extended as applicable to the First Generation Graduate students selected for professional courses through Single Window Counselling in Tamil Nadu. So far 310 students have secured admission under this scheme.

2.2.13. FINANCIAL ASSISTANCE TO ECONOMICALLY WEAKER STUDENTS FROM CHIEF MINISTER'S PUBLIC RELIEF FUND

To encourage and motivate the meritorious students from economically weaker section to pursue their under graduate engineering courses, the Government provides financial assistance of Rs. 50,000 per students. The financial assistance given per student has been enhanced from Rs.25,000/- to Rs.50,000/- per year from 2017-18 onwards. The eligibility criterion of applying for this financial assistance is also extended to the students availing first generation tuition fee waiver. So far financial assistance to tune of Rs.75.25 lakh has been provided to 280 students.

2.2.14. GRANT OF POST GRADUATE ASSISTANTSHIP TO THE STUDENTS STUDYING IN GOVERNMENT ENGINEERING COLLEGES

In order to encourage the bright students to opt for teaching profession and research and for scaling-up Post Graduate education, demand-driven Research & Development and Innovation, the Government have sanctioned a stipend of Rs.6,000/- per month to the Post Graduate students studying in Government Engineering Colleges. So far an amount of Rs.16.34 crore has been provided as stipend to 2,269 Post graduate Students.

2.2.15. ESTABLISHMENT OF VIDEO CONFERENCING CENTRE AT THE DIRECTORATE OF TECHNICAL EDUCATION

Video Conferencing Centre at the Directorate of Technical Education has been established at a cost of Rs.1.19 crore to meet the growing digital educational requirements.

Lectures were delivered through Video Conferencing by eminent professors which helped the students during the pandemic and also served as a tool for effective management of Government Institutions during pandemic through online meetings.

2.2.16. TRAINING PROGRAMME FOR ENHANCING THE ENGLISH TEACHING SKILLS OF ENGLISH TEACHERS IN ENGINEERING AND POLYTECHNIC COLLEGES

Training Programme for enhancing the English skills for 2,000 English teachers in Engineering and Polytechnic Colleges is being conducted in various places in Tamil Nadu at a cost of Rs.60 lakh. This training will enable the teachers to provide quality language teaching to the students of Engineering and Polytechnic Colleges, thereby improving their reading, writing and speaking skills. As on date, 1,350 English Teachers have participated in the

Training Programme conducted at 18 centres in Tamil Nadu. Due to COVID-19 pandemic, five online training programmes have been conducted so far and it is proposed to conduct another three online programmes for the completion of training to all the 2,000 English teachers.

2.2.17. TAMIL NADU ENGINEERING ADMISSION THROUGH ONLINE

The Government notified the Director of Technical Education as appropriate authority for admission to every Government seat in Engineering Institutions from the year 2019-20, in order to improve the co-ordination between the Tamil Nadu Engineering Admissions Facilitation Centers (TFC's) at District level and Nodal agency.

Online Registration for Engineering Admission and Online Counselling for the year 2019-20, have been conducted by Directorate of

Technical Education. A total of 1,41,827 students registered through online and 75,257 students were admitted through online counselling.

Due to the COVID-19 pandemic, for the year 2020-21, all the activities related to admission such as registration of applications, uploading of certificates, certificate verification, assigning random numbers to the registered students, release of rank list, counselling for special category, general counselling, vocational counselling, supplementary counselling, SCA to SC counselling, publication of provisional allotment were conducted through online mode. For the year 2020-21, a total of 1,77,409 students registered through online and 68,397 students were admitted through online counselling.

Inter-se-merit, where more than one student has got the same marks in the common merit list, is resolved using the following parameters:-

- i. Percentage of marks in Mathematics
- ii. Percentage of marks in Physics
- iii. Percentage of marks in optional subject
- iv. Date of birth
- v. Random number assigned

It was observed that in the year 2020-21, random number was used for 1,037 students to fix the inter-se-merit for deciding the College and Course. It was decided to re-examine the parameter for fixing inter-se-merit. Percentage of total marks in the qualifying examination and percentage of total marks in 10th standard examination were added as an additional parameter to resolve the tie and when this was applied for the year 2020-21, the

usage of random number reduced to 20 candidates.

Hence, in order to reduce the usage of random numbers and to increase fairness of fixing the inter se-merit based on the student's academic performance, the rule 5 of the Tamil Nadu Admission in Engineering Institutions Rules, 2007 was amended vide G.O.(Ms) No.158, Higher Education (J2) Department, dated 10.8.2021, where inter-se-merit is fixed as below:

- i. Percentage of marks in Mathematics
- ii. Percentage of marks in Physics
- iii. Percentage of marks in optional subject
- iv. Percentage of total marks in the qualifying Examination
- v. Percentage of total marks in 10th Standard Examination
- vi. Date of birth
- vii. Random number assigned.

Also other admissions like First year admission to B.Arch, Lateral entry and Part time admission to B.E./ B.Tech, First year admission to MBA/MCA courses, First year admission to Government Arts and Science colleges, First year / Lateral entry / Part-Time admission to Government Polytechnic Colleges are to be conducted through online mode for the academic year 2021-22.

2.2.18. TECHNICAL EDUCATION QUALITY IMPROVEMENT PROGRAMME (TEQIP)

TEQIP Phase-III (TEQIP-III) is a World Bank funded project being implemented by Ministry of Education, Government of India. Seven Government and Government Aided Colleges are mentor Institutions and they mentor eight institutions in other States through twinning of institutions.

Mentor institutions received a grant of Rupees seven crores for each institution and each Mentee institution got a grant of Rs.15 crore. In order to teach Engineering students during COVID-19 pandemic lockdown, a workshop on "Design, Develop and Deliver Online Courses through MOODLE Platform" was organized for 1,183 Faculty from 13 Government and Government Aided Engineering Colleges in Tamil Nadu. The faculty members prepared Video Lectures based on the above training for odd semester subjects of B.E. Degree classes. Similar efforts are now being exercised for preparing Video lectures for all the even semester B.E. Degree subjects.

Mentor Institutions in Tamil Nadu	Mentee Institutions in other States
Government College of Technology, Coimbatore	Government Engineering College, Jagdalpur, Chhattisgarh
	National Institute of Technology, Arunachal Pradesh
Government College of Engineering, Salem	Government Engineering College, Raipur, Chhattisgarh
Alagappa Chettiar Government College of Engineering and Technology, Karaikudi	University College of Engineering and Technology (UCET), Vinoba Bhave University, Hazaribag, Jharkhand
Thiagarajar College of Engineering, Madurai	Hacourt Buttler Technical University (Formerly HBTI), Kanpur, Uttar Pradesh
PSG College of Technology, Coimbatore	Assam Engineering College, Kamrup, Assam
Coimbatore Institute of Technology, Coimbatore	MBM Engg College, Jodhpur, Rajasthan
Government College of Engineering, Bargur	Bineswar Brahma Engineering College, Kokrajhar, Assam.

A student team from Government College of Technology, Coimbatore built a robust All-Terrain Vehicle at a cost of Rs.7.50 lakh from TEQIP funding and competed at Baja-SAE

(Society of Automobile Engineers) INDIA event at IIT Ropar and secured overall 8th position among 83 teams from all over India. Another student team also participated at the international Baja-SAE INDIA and Baja-SAE Arizona organized by SAE International with a new innovative model vehicle consisting of pneumatic shocks and Driveshaft as a link suspension system at a cost of Rs.14 lakh with TEQIP funding and the team secured 21st position among 100 teams from different countries.

Government College of Technology, Coimbatore commissioned the 20kWp (Two Nos. of 10kWp) Solar Power Voltaic Thermal (SPVT) system in the campus successfully under the Indo German Energy Programme and TEQIP funding at a cost of Rs.17 lakh. This system generates 3,000 Units of Electricity in a month thereby bringing green energy into the campus.

2.2.19. TRAINING PROGRAMME FOR PRINCIPALS AND PLACEMENT OFFICERS OF ENGINEERING AND POLYTECHNIC COLLEGES

In order to facilitate the students to acquire placement opportunities, a one day training programme along with field visit to IIT Research Park, MIT-Siemens Skill Training Centre was organized for Principals and Placement Officers of Engineering and Polytechnic Colleges. Nearly 2,000 members including Principal and Placement Officers participated in the training programme.

During the academic year 2020-21, out of the qualified, 3,324 final year students, in the Government and Government Aided Engineering Colleges, 2,060 students (62%) were placed in various reputed companies through campus recruitment.

In the Government and Government Aided Polytechnic Colleges during the academic year

2020-21, out of 16,300 qualified final year students, 11,936 students (73.22%) were placed in various companies through campus recruitment.

2.2.20. GATE COACHING TO B.E. STUDENTS STUDYING IN GOVERNMENT ENGINEERING COLLEGES

The GATE (Graduate Aptitude Test in Engineering) examination is the gateway for postgraduate admissions in India and entry-level positions in Indian Public Sector Undertakings (PSU)'s. GATE online lectures were prepared by the TEQIP Institutions for six major courses namely Mechanical, Civil, Electrical and Electronics, Electronics and Communication, Computer Science and Engineering and Chemical Engineering. Regular GATE online coaching classes were also conducted for nearly 2500 students of Tamil Nadu. As a result, the percentage of graduates

who qualified in GATE increased to 10.3% during GATE-2020-21; it was only 4.91 % in GATE-2019-20. Similar efforts are being continued for GATE-2021-22 to improve the percentage of GATE qualified students from Tamil Nadu.

2.2.21. CONSTITUTION OF HIGH LEVEL COMMISSION

In order to assess and analyze the reasons for less number of Government School Students getting admitted into professional courses i.e. Engineering / Agricultural / Veterinary / Fisheries and Law Courses etc. in Universities, Government and Self Financing Colleges and to recommend remedial measures to ensure due representation of the Government School Students, the Government constituted a High Level Commission under the Chairmanship of the Hon'ble Justice Thiru. D. Murugesan (Retired), Former Chief Justice of the High Court of Delhi and consisting of 8 Members and one

Member Secretary vide G.O.(Ms)No.138, Higher Education (J2) Department, dated 15.6.2021. The Commission submitted its report to the Hon'ble Chief Minister on 20.07.2021. Action is being taken on the recommendation of the Commission's report.

3. COLLEGIATE EDUCATION

3.1. Prior to the year 1965, the Directorate of Public Instruction was in existence with only 123 Colleges. With a view to exclusively administer the Collegiate Education, the erstwhile Directorate of Public Instruction was bifurcated into Directorate of School Education and Directorate of Collegiate Education in 1965. After the formation of the Directorate of Collegiate Education, the number of Arts, Science and Educational Colleges have grown substantially and as on date, 887 Arts and Science Colleges, 649 Colleges of Education, four Oriental Colleges, 11 Physical Education Colleges, and two Schools of Social Work totalling 1553 Colleges are functioning under the control Directorate of Collegiate Education.

3.2. WOMEN EMPOWERMENT

The objective of Higher Education Department is to motivate and encourage women to stand on their own and to achieve greater heights. This department envisages the opening of women colleges based on need to reduce the number of dropouts among women students.

Further, free coaching is provided at Queen Mary's College, Chennai and Arulmigu Meenakshi Government Arts College for Women, Madurai for women candidates appearing for All India Services and Central Services Examinations.

3.3. GROSS ENROLMENT RATIO (GER)

The GER of the State of Tamil Nadu is 51.4 percent as against the National average of 27.1 percent. It is pertinent to note that the Shift system introduced during the year 2006-07

has paved the way to increase the GER of the State over the years. In order to achieve a higher GER, it is intended to start more colleges and new courses suiting the current trends and requirements.

3.4. INCLUSIVE EDUCATION

Higher Education is an important tool through which social and economic changes can be brought into the lives of the poor and marginalized people of the society. The Government shall give utmost importance to protect the interest of the economically and socially weaker sections of the society by providing easy access to quality higher education through Government and Government Aided institutions.

3.5. GRADING AND RANKING OF COLLEGES

The Colleges are subject to assessment and accreditation process through various

criteria by agencies like National Assessment and Accreditation Council (NAAC) and National Institutional Ranking Framework (NIRF).

Four Government Colleges have found place within the top 100 colleges as per NIRF ranking and 10 Government Colleges have been graded 'A' as per NAAC score.

The Government shall take all possible measures to ensure more colleges being assessed by NAAC and ranked by NIRF during the forthcoming years.

3.6. FREE EDUCATION

Considering the plight of the poor and marginalized students and to promote Higher Education among them, the Government have waived the payment of tuition fees upto U.G. Level for the students in Government and Government Aided Colleges from the year 2007-08. The scheme has been extended to the

students studying in P.G. Level in Government Colleges from the year 2010-11.

3.7. JOB FAIR

The Government have been conducting Job Fairs since 2008 in Government and Government Aided Colleges to open up more job avenues for students. To achieve this goal, the Placement Cell in the colleges shall be revamped and enthusiastic teachers shall be placed in charge of Placement Cells to guide the students to secure employment.

3.8. STIPEND FOR TAMIL MEDIUM STUDENTS

The Scheme of providing stipend to students pursuing Higher Education in Tamil Medium was introduced in the year 1971-72. A stipend of Rs.900/- per annum is being provided under this scheme and 47,072 students were benefitted last year.

3.9. FREE BUS PASS

Considering the difficulties of students hailing from poor background and to encourage them to pursue Higher Education, the Government introduced the Free Bus Pass Scheme during the year 2007-08 and this scheme is continued till date.

3.10. SPECIAL COACHING TO SC/ST AND MBC STUDENTS

The students studying in Government Colleges, particularly in rural areas belonging to SC/ST and MBC communities, face some initial difficulties in learning English, Mathematics and Science subjects. In order to make them fully conversant and achieve high marks in the subjects, the Government issued orders to give special coaching to these students after the class hours and also during weekends. This will enable

them to compete with other students and face the University examinations with confidence. This special coaching is being continued till date for the benefit of the students.

3.11. STIPEND FOR Ph.D. SCHOLARS

To promote the Research and Development activities among Post Graduate students in Government and Government Aided Colleges, a stipend is provided for Full-time Ph.D. Scholars for a maximum period of three years since 1998. Under this scheme, the Research Scholars are availing Rs.60,000/- per annum.

3.12. ACTIVITIES OF NATIONAL SERVICE SCHEME (N.S.S)

The National Service Scheme (NSS) has emerged as a great student movement in the country with its implementation starting from Universities to Schools with the prime objective of personality development of students through

its meaningful activities. The young students are brought up with good qualities like concern for fellow human beings, national integration, patriotism, leadership qualities, self-confidence, tolerance, etc.

It is befitting to mention that around 1.50 lakh NSS volunteers have extended a great support to the District Administrations to fight the COVID-19 pandemic by involving in various awareness and containment activities both online and in the field level.

3.13. COMPUTER LITERACY PROGRAMME (CLP)

The century is marked by information explosion and the digital platform has become an important medium for the dissemination of knowledge. Hence, it is imperative that students belonging to all disciplines should be digitally literate.

During the year 2000, the Government started Computer Literacy Programme in Government Colleges by offering courses in basic computer skills like Windows, MS Office, Linux, etc., after college hours. This has enhanced the computer knowledge of the students and paves way for digital literacy. Many students who have completed this course have been recruited in various organizations.

3.14. DISASTER MANAGEMENT

The Government in Revenue and Disaster Management Department has allotted a sum of Rs.1.24 crore to the Directorate of Collegiate Education for imparting training and awareness programmes to NCC Nodal Officers and Students in Colleges to the Coastal Disaster Risk Reduction Project. To implement the above project, a committee of five NCC Officers was constituted and the training and awareness programmes were conducted. To carry out the

preparedness/ preventive measures to contain the outbreak of COVID-19, an amount of Rs.60 lakh was sanctioned to the Collegiate Education Department, by the Commissioner of Revenue Administration and Disaster Management/State Relief Commissioner. This amount was utilized for the purchase of Masks, Sanitizers, Thermal Scanners etc.

3.15. e-GOVERNANCE

For the implementation of e-Governance in the Directorate of Collegiate Education, the Government have sanctioned a sum of Rs.99.80 lakh for Phase-I and Rs.132.23 lakh for Phase-II. The Tamil Nadu e-Governance Agency is developing the software for office administration and integration of Regional Joint Director Offices and Colleges.

3.16. RENOVATION OF HERITAGE BUILDINGS

The Government have undertaken the renovation of Heritage Buildings in Government Arts College, Ooty, His Highness The Rajah's College, Pudukkottai and Institute of Advanced Study in Education, Saidapet, Chennai. A sum of Rs.16.89 crore has been sanctioned towards the renovation of Heritage Buildings and the works are expected to be completed this year.

3.17. CONSTRUCTION OF NEW BUILDINGS

An amount of Rs.10.94 crore has been sanctioned for the construction of new building in LRG Government Arts college Tirupur and Rs.148.65 crore for construction of 725 class rooms in 48 Government Arts and Science colleges.

3.18. CONVERSION OF UNIVERSITY CONSTITUENT COLLEGES INTO GOVERNMENT COLLEGES

In the first phase (2019-20), 14 University Constituent Arts and Science Colleges and subsequently in the second phase (2020-21), 27 University Constituent Arts and Science Colleges were converted into Government Arts and Science Colleges.

3.19. FILLING UP VACANCIES OF TEACHING AND NON TEACHING STAFF.

The Government shall take necessary steps to fill up the vacant posts of Assistant Professors through Teachers Recruitment Board and Non teaching posts through Tamil Nadu Public Service Commission.

3.20. INDUCTION TRAINING PROGRAMME FOR ASSISTANT PROFESSORS

In order to cope with the changing trends and technological developments in Higher

Education, teachers have to refresh their teaching methodology and subject knowledge. To impart quality education to the students, the newly recruited Assistant Professors in Government Arts and Science Colleges shall be given four weeks of induction training in collaboration with TANSCHÉ and Universities.

3.21. ONLINE REGISTRATION OF APPLICATIONS

Considering the prevailing COVID-19 pandemic situation, online registration facility is being provided to the students seeking admission in Government Arts and Science Colleges. This online registration portal has reduced the hassles of students and provides easy access even through their smartphones. This portal has enabled registration of 3,04,547 applications for the Academic Year 2021-22.

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
14. Dr. J Jayalalithaa University

4.1. UNIVERSITY OF MADRAS

4.1.1. The University of Madras, one of the oldest higher education institutions in India, was established on 5th September 1857. As an affiliating University, it had its jurisdiction over the then Madras Presidency. Now, the jurisdiction of the University covers the districts of Chennai, Thiruvallur, Chengalpattu and Kanchipuram. It is an acclaimed University in the field of Arts and Science education and has 87 teaching and research departments / research Centres with 128 affiliated colleges.

4.1.2. University of Madras has been recognized by the University Grants Commission (UGC) as 'University with Potential for Excellence' and completed Phase I and Phase II projects.

4.1.3. The University has been placed at 22nd position among the top Universities of the country in the National Institutional Ranking

Framework 2020 (NIRF) and one among the top three Universities in the State.

4.1.4. The Institute of Distance Education (IDE) offers 15 UG courses, 20 PG courses, 19 Diploma / PG Diploma courses and seven Certificate courses. It also offers M.Sc. (IT) and B.B.A. courses to students in Africa through the Pan African e-Network Project.

4.1.5. The University faculty have achieved 12,994 publications in the Scopus listed peer reviewed journals with impressive citations of 1,38,330 and h-index of 132 so far.

4.1.6. The University has initiated the process to establish 'Entrepreneurship and Career Hub' under Rashtriya Uchchar Shiksha Abhiyan (RUSA) 2.0 and the Government of Tamil Nadu have sanctioned a sum of Rs.7.50 crore as a part of its contribution. In addition, Rs.35 crore has been sanctioned under the RUSA 2.0 for Research and Innovation to

carry out cutting edge research in the frontier areas as well as inter disciplinary research by the University Departments.

4.1.7. A Memorandum of Understanding was signed with the Consortium for Educational Communication (CEC), an Inter-University Centre of UGC, New Delhi.

4.1.8. The University proposes to establish a state-of-the-art “Educational Multimedia Research Centre” to prepare animation videos and electronic course contents and create virtual class rooms.

4.1.9. The University also proposes to establish a state-of-the-art “Centre for Anti-infective Research” (CAIR) with multidisciplinary approach to carry out dedicated research on deadly infectious diseases like COVID-19.

4.2. MADURAI KAMARAJ UNIVERISTY

4.2.1. Madurai University was established in the year 1965 and then renamed as Madurai Kamaraj University in 1979 to honour the enormous contribution of Bharat Ratna Thiru. K. Kamaraj to education. More than one crore students have been graduated from Madurai Kamaraj University in the last 55 years. Madurai Kamaraj University was bestowed with the status of "*University with Potential for Excellence (UPE)*" by the University Grants Commission. It has secured 60th Rank among Universities in India and an overall 84th rank among 3127 Indian Universities and Institutions in NIRF Ranking-2020 by the Ministry of Education, Government of India.

4.2.2. The University comprises 77 departments under 20 Schools. There are 106 Colleges, five Evening Colleges, one MKU College and 14 approved institutions affiliated to

Madurai Kamaraj University from four districts namely Madurai, Theni, Virudhunagar and Dindigul.

4.2.3. Madurai Kamaraj University offers 54 Post Graduate, 41 M.Phil., 51 Ph.D programmes and 18 Diploma/ P.G. Diploma/ Certificate courses. Currently, the total UG/PG students and research scholars on the roll are 4650.

4.2.4. The University has developed ‘MKU Mobile app’ - a Learning Management Systems (LMS) for easy access to materials related to academic and research activities and also to connect with other Universities.

4.2.5. Madurai Kamaraj University confers ‘Tamil Semmal Award’ to the Tamil scholars based on the Merit and transparent selection.

4.2.6. Under RUSA Phase-2 programme, a sum of Rs.53.50 crore has been sanctioned to

Madurai Kamaraj University. Out of this, for component 10 (Research, Innovation and Quality Improvement), a sum of Rs.17.50 crore has been released, out of Rs.35 crore sanctioned in the first phase to carry out 58 novel and innovative research projects in the emerging areas.

4.2.7. A centralized computer lab consisting of 300 computers with LAN connections and CCTV cameras has been established.

4.2.8. A Honey-Bee production equipment has been installed in Botanical Garden of School of Biological Sciences at a cost of Rs.3.99 lakh. A food processing and hotel management laboratory has been established in the Centre for Tourism and Hotel Management at a cost of Rs.16 lakh.

4.2.9. School of Biological Sciences of Madurai Kamaraj University is involved in DNA research of the skeletal and biological remains of

the archaeological excavations of the Government of Tamil Nadu. The ancient DNA research is supported with the MKU-RUSA funds of Rs.3 crore with the project titled "Antiquity and Peopling of the Deccan - an Ancient DNA approach".

4.2.10. The University has also taken the following initiatives :-

- The Library is fully automated by RUSA funds and digitalized rare books with the help of Directorate of Public Libraries.
- A Neem Tree Forest was developed with 4000 trees with the help of the forest department.

4.3. ANNA UNIVERSITY

4.3.1. Started as a Survey School in May 1794, College of Engineering, Guindy, is one of the most venerable British Indian educational institutions and one of the oldest professional training schools in India. On 17th May, 1794, the Survey School was started with just eight boys in a building near Fort St. George. The Survey School metamorphosised into Anna University, the single largest technical university in the nation which continues to be a leader in technical education in the country. Established in 1978 as a unitary type of university to promote teaching and research in the field of Engineering, Technology, Architecture and Applied Sciences, the University departments are housed in the four prestigious institutes namely College of Engineering, Guindy, Alagappa College of Technology, Madras institute of Technology and School of Architecture and Planning.

4.3.2. Now, being an affiliating type of University, it has added 13 Constituent Colleges and three Regional Campuses in Tirunelveli, Madurai and Coimbatore along with 520 affiliated colleges that includes Government, Government aided and Self-financing Colleges. Anna University, Chennai has 34 University Departments grouped under eight Faculties and 46 Autonomous Centres with well-equipped research laboratories and infrastructural facilities. Anna University offers 28 UG and 77 PG programs with 13,525 students on roll in the University Departments, 46 UG & 63 PG Programmes in affiliated institutions with 5,10,122 students on roll including 11,053 Ph.D. scholars.

4.3.3. In the NIRF ranking-2020, Anna University has been positioned 12th among the Universities, 18th among Architecture Institutions, 14th among Engineering Institutions, 20th in the overall category and

59th in the Management category. Based on the World's largest collection of peer reviewed literature, Quacquarelli Symonds Index (QS Index) ranking 2021 has placed Anna University between 751-800 worldwide, 196th at Asia level, 16th in our nation and 87th among BRICS Universities.

4.3.4. Currently, there are five Departments of Anna University that have been recognized by the U.G.C. to receive support of Rs.4.76 crore under the Special Assistance Programme for a period of 5 years.

4.3.5. Centre for Nano Science and Technology received an Indo – Japan Collaborative project “Investigation on the growth process and defects studies of semiconductor materials for high-temperature thermos electric applications” from DST, India for two years from 2021 to 2023.

4.3.6. A novel sanitizer to eliminate COVID Virus from Mask, PPEs, Dresses by spraying has been developed and the technology has been commercialized through M/s. Jetinks Pvt. Ltd.

4.3.7. Department of Textile Technology, Anna University, Chennai has developed a reusable mask based on polyester fleece fabric meant for filtration of particles of size 3.0 microns and above.

4.3.8. Automated External Defibrillator (AED) and web-based audiometer has been developed by Anna University which was funded by Department of Science and Technology.

4.3.9. A foot abduction brace with a compliance monitor for clubfoot deformity in children has been developed in collaborative co-ordination with IISc, Bangalore and CMC Vellore. This is funded by DST.

4.3.10. CUIC Conducted Tamil Nadu State Level Placement Program (TNSLPP) at different zones, for the benefit of students from affiliated colleges and University / Constituent Colleges under Anna University. A total of 1571 students were placed in various multinational companies.

4.3.11. Anna University has applied for three patents and out of the earlier applications Anna University has secured 11 patents during 2020-21. Anna University has signed 1 MoU with a foreign Institute and 13 MoUs with Institutions / Industries at the National Level.

4.3.12. The Department of Media Sciences is creating awareness on COVID-19 at the community level through Anna Community Radio (CR), the first campus-based CR in India. Apart from this, the department also trains the community to identify fake news using digital tools and techniques through its dedicated

programmes on fact-checking through Anna Community Radio.

4.3.13. An amount of Rs.43.75 crore has been allotted by the University for Construction of various buildings and providing infrastructure facilities at Anna University during the year 2020-21.

4.3.14. An amount of Rs.5.86 crore has been sanctioned and released to Anna University by the State Government for various projects under TANII.

4.3.15. Director General of Civil Aviation (DGCA) has granted Authorization to Centre for Aerospace Research (CASR), Madras Institute of Technology, Anna University, for establishing a Remote Pilot Training Organization (RPTO) which enables CASR to conduct Remote Pilot Training and issue license/certificate on behalf of DGCA which is mandatory for flying any type of RPAS

(Remote Pilot Aircraft System) in the country as per the new regulations stipulated by the Government.

4.3.16. An e-governance project has been initiated by Anna University to bring the different Sections of Anna University under single data centre operations. An MoU has been signed with Alumni of 1971 batch of the College of Engineering who are sponsoring the software for the phase-I of this project.

4.4. BHARATHIAR UNIVERSITY

4.4.1. Bharathiar University was established with nine academic departments in 1982. Now, the University is running with 38 Departments under the 14 schools, which offers 58 P.G, M.Phil and Ph.D. programmes. In the academic year 2020-21, the student strength is 2874 P.G. students, 53 M.Phil. and 956 Ph.D. scholars. The University is affiliated with 133 colleges (16 Government colleges, 16 Government Aided colleges, one Airforce Administrative college, 13 Management colleges and 88 Self-financing Colleges) in which 29 colleges with autonomous status and 34 colleges with research institution status.

4.4.2. Bharathiar University has been accredited consecutively with "A" Grade in the third cycle by National Assessment and Accreditation Council (NAAC) for the period 2016–23.

4.4.3. Bharathiar University has been ranked as 13th among Indian universities and stands 21st in the overall category by the National Institutional Ranking Framework (NIRF), Ministry of Education (MoE), Government of India for the year 2020.

4.4.4. The University is proud to have 14 faculty members who are listed under World Top 2 % Scientists by the Survey made by the Researchers from Stanford University, USA, based on the leading scientific database SCOPUS.

4.4.5. Bharathiar University has 10,305 publications with citations of 1,45,091 with the "h" index of 122 as per the SCOPUS database.

4.4.6. Six patents were granted in the name of Bharathiar University and 13 more patents were filed.

4.4.7. In the year 2020-21, the University has been awarded 35 projects with a grant of Rs.8.50 crore by Tamil Nadu State Council for Higher Education (TANSCHÉ) to encourage collaborative research among State Universities and to improve the NIRF rankings of all State Universities of Tamil Nadu.

4.4.8. Bharathiar University has been awarded with Rs.17.25 crore by the DST-PURSE programme during the second phase, based on the cumulative h-index (SCOPUS) by the Department of Science and Technology, Government of India, for procuring sophisticated instruments.

4.4.9. Bharathiar University is one among the 16 Universities in India to receive Rs.50 crore under RUSA 2.0 (Phase II) programme under research, innovation and

quality improvement plan, Ministry of Education, Government of India.

4.4.10. Bharathiar Centre of Excellence established to honour the great National poet Bharathiyar, after whom the University is named, promotes the literary legacy and achievements of Bharathiar.

4.4.11. With the aim of preserving the ancient heritage of herbal medicine, the University has already started establishing the Herbal Garden to nurture medicinal plants.

4.4.12. The University has signed a MoU with the Vector Control Research Centre (VCRC), Pondicherry for sharing the research expertise of the Scientists and Faculty members and attracting more funding through ICMR projects.

4.5. BHARATHIDASAN UNIVERSITY

4.5.1. Bharathidasan University, proudly bearing the name of a great revolutionary Tamil Poet, 'Bharathidasan', established in 1982 relentlessly pursues the progressive aim of, 'Creating a *Brave, New World*', a strident dictum coined by the great poet.

4.5.2. 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 a scholarly, scientific, and critique-minded disposition among the learners to traverse forward into the frontiers of ever emergent knowledge and enrich them as the citizens of the state, the nation, and the world by offering a globally competitive learning opportunities and creative experiences through

quality programmes of teaching, research, and extension.

4.5.3. The University has four Faculties, 16 Schools, 37 Departments, 29 specialized Centres, eight Central Facilities, and nine Cells, conducting more than 100 programmes at different levels. At present, 2,984 students are pursuing their higher studies and research in the University Departments. During the year, 7,824 Ph.D. Scholars are pursuing their research, both in the University Departments and in the Autonomous and Affiliated Colleges. As many as 2,60,234 students are pursuing their studies in the Affiliated and Constituent Colleges.

4.5.4. The University affiliates a total number of 159 colleges (34 Government Colleges, 19 Government Aided Colleges, 70 Self-Financing Colleges, 22 Autonomous Colleges, 13 Approved Institutions and one Uni-Faculty Institution).

4.5.5. In 2020-21, online clouds service named after the University as “BARD CLOUD” has been made available for benefit of faculty and students to access curriculum contents. For the first time in Tamil Nadu, Online examinations were conducted for more than 90,000 students using Amazon Web Services technology. Hon’ble President of India, gave away the Best University Award for exemplary service of the National Service Scheme (NSS). The Bharathidasan University Entrepreneurship Career Hub (BECH) was registered as a company under Companies Act 2013 - Section 8 – Special Purpose Vehicle (SPV). During the year, a total of 34 research projects have been funded by various funding agencies including UGC, CSIR, DST, DBT, DAE, DRDO, BRNS, ICSSR and ICMR to the tune of Rs. 28.27 crore.

4.5.6. The University proposes to make the Learning-Evaluation process thoroughly LOBE based and to launch On-line or MOOCs courses.

4.6. MOTHER TERESA WOMEN'S UNIVERSITY

4.6.1. Mother Teresa Women's University is the unique and first Women's University in the State of Tamil Nadu. It was established on 2nd March 1984 under the Tamil Nadu Legislative Special Act 15 to empower women through higher education. The University was named after the Nobel Laureate for Peace, St. Mother Teresa and is functioning effectively from the time of inception. The saying of the Great Poet Bharathiar "Towards Equal Status" became the motto of University to attain the vision of Gender Equality and the University is marching towards the upliftment of women through Higher Education.

4.6.2. The University has 16 departments with three Research and Extension Centres at Chennai, Madurai, Coimbatore and a Training Centre for Women Empowerment at Pallapatti Campus (SIPCOT Industrial Complex), Nilakottai,

Dindigul District. The University, which was unitary, became an affiliating type in 2002. The Women's Colleges in Theni and Dindigul Districts come under the affiliation of Mother Teresa Women's University. There are 12 Colleges which include three Government, two Aided, one Constituent College of Education and six Self Financing Colleges. There are 20,267 students studying 60 Under Graduate, 851 Post Graduate, 24 M.Phil. and 186 Ph.D. programmes in University Departments and in 1452 Distance Education and also in 17694 affiliated colleges.

4.6.3. DST-CURIE funded Centre for Artificial Intelligence Laboratory (AI) for an amount of Rs.70 lakh, has been set up with a vision to promote Machine Learning among students, Research Scholars and academicians. The AI club is also formed to conduct a series of programmes at International & National levels, hackathons, Faculty Development Programmes etc.

4.6.4. Innovation state-of-the-art Laboratory Mycotechnology research works under the Department of Biotechnology has 300 Basidiomycota species Specimen collection. From those mycelia, 40 are maintained to reveal the potentials through research work.

4.6.5. The University organizes training programme on Mushroom cultivation technology for rural people and offers Diploma courses for students.

4.6.6. Standardization of wild mycelia for packaging material is in progress.

4.6.7. Essential oil of 20 Eucalyptus species was extracted to conduct a Research on their activities against dermal fungi. One Patent is applied for a room freshener composition.

4.6.8. The University has been updated with automation facilities in the administration of the University.

4.6.9. University Central Library has got access to digitalized e-resources, Green library, Electronic Thesis and Dissertation Laboratory with uploaded theses of Mother Teresa Women's University in Shodhganga website from the Shodhganga (UGC-INFONET) Project grant of Rs.15.09 lakh.

4.6.10. Gandhi Museum, Yoga Centre and creation of corpus e-content are the notable activities for the year 2020-21.

4.6.11. Incubation and Technology Transfer Centre (ITTC) developed Innovative Products like AI-based Bison Detection on Real-Time Video Streams, Old Age Home Management System etc.

4.6.12. The Government of Tamil Nadu has sanctioned Rs.30 crore for the ongoing construction works of the seminar hall, classrooms, quarters and compound wall.

4.6.13. Nine Research Projects funded by TANSCHÉ for an amount of Rs.2.28 crore, have been commenced from May, 2021.

4.6.14. ICSSR, UGC-DST, DST-SERB and TNSCST funded for the ongoing Research Projects for an amount of Rs.17.62 lakh.

4.6.15. Faculty members published 114 Research Papers and 68 publications indexed in scopus/web of science/pubMed.

4.6.16. The University conducted 29 workshops / seminars on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship Development and Skill Development.

4.6.17. The University proposes to establish the Centre for Women Empowerment, Centre for Innovative Research & Start-ups, Children's Library, Children's Play Corner and Centre for National Women Entrepreneurs.

4.7. ALAGAPPA UNIVERSITY

4.7.1. Alagappa University was established in May 1985 by the Special Act passed by the Tamil Nadu State Legislature. It has four faculties, 44 Departments, 10 Directorates & Centres and three University Constituent Colleges. Besides, it has 50 Affiliated colleges (including six Evening colleges), spreading two districts namely Sivaganga and Ramanathapuram.

4.7.2. The University offers 203 Programmes in the University Departments, 117 in Affiliated colleges, 75 in Distance Education and 146 programmes in collaborative mode of education. Around 1.03 lakh of students are pursuing the higher studies through the above streams.

4.7.3. Alagappa University is the first State University that has obtained A+ status in the State of Tamil Nadu. Alagappa University is placed

24th position in Quacquarelli Symonds India 2020 Ranking and 36th position under NIRF 2020 Ranking declared by the Ministry of Education, New Delhi and 199th position in Quacquarelli Symonds Asia Ranking (QS Index).

4.7.4. UGC has sanctioned Rupees one crore to Alagappa University under the UGC- STRIDE scheme and two of University's faculty members have received MHRD-SPARC project partnering with professors from the USA and China.

4.7.5. The University has entered into MoU with 17 Institutes of Eminence during the last three years (2018-19, 2019-20 and 2020-21) in England, USA, South Korea, China, Australia, Malaysia, Taiwan, Oman, Singapore and Norway for research and faculty student exchange purpose.

4.7.6. Alagappa University is one of the top 10 Universities in India and has been allotted

Rs.100 crore under RUSA-Phase 2.0 scheme. Out of which, 45% is earmarked for Capital expenditure and 55% for the quality improvement of Teaching and Research. The Government of Tamil Nadu has contributed 40% of the share of total allotment under this scheme.

4.7.7. The University has established a Digital Education Cell and encouraged around 3,400 students to register for Massive Open Online Courses (MOOCs) under the SWAYAM portal. NPTEL recognized the University as one of the top institutions for promoting MOOCs.

4.7.8. The University has adopted 91 Villages through its departments and affiliated colleges towards achieving Open Defecation Free (ODF), improved sanitation, cleanliness, hygiene, prevention of usage of plastics, solid & liquid waste management and youth empowerment

under Village Extension Programme and Centre of Swachh Bharat and Swasth Bharat.

4.7.9. Recognizing the above extension activities, Mahatma Gandhi National Council for Rural Education (MGNCRE), New Delhi, has chosen Alagappa University as Mentor Institution for Mainstreaming Swachhta Action Plan and Jal Shakti Abhiyan (JSA) in rural areas through community engagement.

4.7.10. Ministry of Education has chosen 13 top US Universities for overseas research collaboration. This University has signed MoU with Cornell University and also initiated the process of signing MoU with Drexel University, North Eastern University and Stanford University, for undertaking research Students faculty exchange program in the areas of Biotechnology, Nanotechnology, Material Science, Humanities and Management.

4.7.11. The University has established a Centre of Excellence for Skill Development as an Entrepreneurship, Innovation and Career Hub for Youth Empowerment.

4.7.12. Teaching and learning processes are undergoing evolutionary changes in the era of Information Technology. In order to meet the national and global needs, it is proposed to introduce several innovative and interdisciplinary programmes. The University has entered into an agreement with select Universities abroad to offer training to the trainers and students by inviting experts in these unique and commercially potential areas.

4.7.13. The University has planned to establish a world class State Level Research Consortium to address the solution for real life situation in health care, energy, disaster management, biodiversity, agriculture,

Information Technology, Artificial Intelligence, Machine Learning, Skill Development and Socio-economic development of our State with more focus on interdisciplinary approach on various disciplines.

4.7.14. As part of social responsibility, the University shall focus on identification and promotion of local talents in select areas such as Ceramic and Art Design (Aathangudi tiles), Chettinad Heritage (Catering & Tourism), Craft work (Wood & Metal) and Trading (Share market).

4.8. MANONMANIAM SUNDARANAR UNIVERSITY

4.8.1. Manonmaniam Sundaranar University is a reputed institution of higher learning in Tirunelveli, the educational hub of Southern Tamil Nadu, with a campus area of 550 acres. The University was established in 1990, as a teaching-cum-affiliating University. The University is named after the Tamil poet Prof.P.Manonmaniam Sundaranar Pillai, the author of the famous verse drama, Manonmaniam. The University caters to the needs of the four southern districts of Tamil Nadu, viz., Tirunelveli, Thoothukudi, Kanyakumari and Tenkasi.

4.8.2. There are 23 Departments and five Centres in the University besides the Directorate of Distance and Continuing Education and Directorate of Vocational Education. Through Community Colleges and Extension Learning Program (ELP) Centres, Directorate of Vocational

Education is offering skill based diploma and Certificate courses in various skill sectors. P.G. Extension Centre of Manonmaniam Sundaranar University is at Nagercoil.

4.8.3. An amount of Rs.1.88 crore was received as Special Assistance Under SAP-DRS II from UGC. Further, this university has received BSR fellowships from UGC for conducting applied research in the fields of Statistics, Marine Sciences and Physics. One of the predominant roles of the University is to contribute to the existing knowledge through publication-specific activities. In the bibliometric calculi, this university has made substantial contributions. In SCOPUS, the number of citations for this University is 1,815, with an h-index of 54. In the Web of Sciences, the citation index is 1564, with an h-index of 56.

4.8.4. The University aims to create digital archives on Bharathiyar to document all his works, including his hand written works and articles in journals.

4.8.5. Encouraged by the archaeological findings in Keeladi that testified to the existence of an ancient urban Tamil civilization and the findings at Adichanallur, this University has decided to launch a Centre for Archeological Studies with a mandate to visit and analyze archeological objects in these sites as well as organizing seminars/workshops in archeology to expose the students to the importance of history, culture and artifacts. The ultimate objective of this center will be to identify ancient relics and to date the artifacts recovered from these sites through non-invasive scientific techniques. The Departments of Geo-Technology, Tamil, History, Sociology, Chemistry, Physics and Biotechnology will actively

coordinate among themselves. This centre also plans to collaborate with the Tamil Nadu Archeological survey department.

4.8.6. To be successful in the workplace the students should be exposed to digital education. This University is creating a “Centre for E-Governance” to manage the IT resources such as Common Computing Centre, Learning Management System (LMS), Management Information System (MIS), examination automation, Data Centre, IT infrastructure maintenance, Web site & Intercom Upkeep, smart class rooms, surveillance systems, and biometric systems, to develop online resources etc.

4.9. PERIYAR UNIVERSITY

4.9.1. The Government of Tamil Nadu established the Periyar University at Salem in 1997. The University is progressing exponentially and has been recognized by the accrediting agencies such as University Grants Commission and National Assessment and Accreditation Council and National Institutional Ranking Framework, Ministry of Education, Government of India.

4.9.2. The University has five Science Schools and three Arts schools comprising 27 Departments offering 33 Postgraduate programmes, five Undergraduate Programmes, one Diploma programme and 27 Research programmes. Periyar University Post Graduate Centre at Dharmapuri is performing well with eight departments.

4.9.3. The University ranked 83rd in the NIRF 2020 among the universities in India and 4th rank in Atal Ranking of Institutions on Innovation Achievement (ARIIA).

4.9.4. The funds to the tune of Rs.34.55 crore were mobilized between 2015 and 2021 through 76 external funding projects and special schemes from the national funding agencies.

4.9.5. Tamil Nadu Corporation for Development of Women (TNCDW) Ltd sanctioned Rs.2.67 crore to train Rural Youth under DDU-GKY for 350 rural youth in seven districts over a period of three years. The Placement linked Skill Oriented training will be imparted on Artificial Intelligence namely, Business Intelligence, Data Science and User Interface Development under this Programme.

4.9.6. The University proposes to establish a Centre for Disease Prediction and Management in collaboration with the National and International Health Institutes. The main focus of the Centre is to study and understand the cause for vector, air, animal, water borne diseases such as Dengue, Malaria, Chikungunya, Swine flu (H1N1), Ebola, Corona, Cholera

4.9.7. The University proposes to establish a Centre for climate change and risk management to study the impact of climate change and identify possible management practices to overcome the changing climate.

4.10. TAMIL NADU OPEN UNIVERSITY

4.10.1. The Tamil Nadu Open University (TNOU) was established in 2002 for the introduction and promotion of Open and Distance Learning Systems in the educational pattern of the State.

4.10.2. Tamil Nadu Open University since its inception is providing cost effective, Open and Distance Learning to the hitherto unreached as well as the disadvantaged groups those are living in remote and rural areas including the working people, housewives, differently abled and weaker sections of the society.

4.10.3. The University is offering 130 Academic Programmes starting from one Certificate course, four Diplomas, 14 Vocational Diplomas, two PG Diplomas, 38 Undergraduate Degrees, 43 Master Degrees and 28 Ph.D. Programmes. At present, a total of

28,957 learners got admitted and are undergoing various programmes of study.

4.10.4. The University has received a grant of Rs.1.17 crore from UGC-DEB for the year 2020-21 to develop Online course material, MOOCs, ICT, Quality assurance and Networking in Open and Distance Learning System.

4.10.5. Job-Fairs were organized in Villupuram, Coimbatore and Tiruchirappalli through which, 2473 degree and diploma holders received placement orders from various firms and companies.

4.10.6. The University has enrolled 12,221 students in the academic year 2020-21 during the COVID 19 Pandemic situation.

4.10.7. Tamil Nadu Open University's Regional Centre Building at Villupuram was constructed at an estimate of Rs.6.25 crore and Additional Floor at Academic Block at an estimate

of Rs.23.24 crore as well as in Material Distribution Division Block in the main Campus have been constructed and put to use.

4.10.8. 44 webinars at International and National level were conducted through Virtual Platform.

4.10.9. MoUs were signed with eight new Community Colleges to offer Vocational Education Programmes.

4.10.10. The SC/ST cell of Tamil Nadu Open University for the first time organized a programme on “Dr.B.R.Ambedkar 130th Birthday celebration” through virtual platform.

4.10.11. The University revamped and updated curricula of all Programmes (128 Programmes) of study by constituting 28 Board of Studies. The Self-Learning Materials (SLM) are to be prepared with new syllabi after

the gap of more than one decade. Detailed Syllabi in the form of e-Books for all UG & PG (80) Programmes are uploaded in the University website (www.tnou.ac.in).

4.10.12. TNOU i-Radio platform is launched to conduct counselling classes during the pandemic period. This platform provides live stream and podcasting / radio on demand streaming for delivering the created content. Students can utilize the service at anytime and anywhere.

4.10.13. A virtual conference was conducted in connection with Paventhar Bharathidasan 131st Birth Anniversary on 29.04.2021. In this programme, hundreds of Tamil scholars from Europe, Mauritius, Malaysia and India participated.

4.10.14. The University submitted a proposal to UGC for offering Bachelor of

Vocational (B.Voc.) Programmes in (i) Animation & Graphics, (ii) Retail Management, (iii) Media & Entertainment and (iv) Fashion Technology under National Skill Qualification Framework (NSQF).

4.10.15. In Dharmapuri, 1.75 acre of land at Periyannahalli and in the Nilgiris, 0.75 acre of land in Kothagiri were allotted to the University for the Construction of Regional Centres.

4.10.16. The University will be offering a Short Term Programme in collaboration with The Tamil Nadu Dr. M.G.R. Medical University, Chennai on "A Novel Coronavirus - Awareness, Prevention, Vaccination and Life Balancing".

4.11. THIRUVALLUVAR UNIVERSITY

4.11.1. Thiruvalluvar University was started in the year 2002 by the Government of Tamil Nadu under the Thiruvalluvar University Act, 2002. The Thiruvalluvar University has housed 10 Departments in its Campus, namely, Tamil, English, Economics, Mathematics, Zoology, Chemistry, Biotechnology, Commerce, Physics and Computer Science and having 67 affiliated Arts and Science Colleges and five Research institutions within the jurisdiction of four districts, viz., Vellore, Thiruvannamalai, Ranipet, and Tirupattur.

4.11.2. The Departments of Zoology and Chemistry in collaboration with the National Institute of Unani Medicine, Bengaluru, organized a National webinar on the Integrative approach to the management of non-communicable diseases.

4.11.3. The University in collaboration with King Institute of Preventive Medicine and Research, Chennai and Siddharkal Kottam, Tirunelveli have filed a Patent on “Cissus Quadrangularis Plant Extracts for treating Influenza and Dengue diseases”.

4.11.4. The University has organized an Organic Agile Research Culture programme to transform the research culture and improve the research outcomes of the University in the University Campus. The Programme was started with an initiative to collect Open Educational Resources on Research Methods followed by a Researcher Development Boot Camp.

4.11.5. The University Central Library has 11,571 volumes of books covering all disciplines. The library subscribes to eight leading newspapers. Internet browsing facilities are also available inside the library to browse e-resources.

The library subscribes 2290 + full text e-journals from leading publishers (the product name is EBSCO – Academic Search Elite) and many links are provided to access open access e-books and e-journals to improve the quality of research in the University. University library is a member in DELNET (Developing Library Network) and Shodhganga.

4.12. TAMIL NADU TEACHERS EDUCATION UNIVERSITY

4.12.1. The Tamil Nadu Teachers Education University was established by the Government of Tamil Nadu by Act No.33 of 2008 to promote excellence in Teacher Education. It has the distinction of being the only University of its kind in the Nation and is engaged in transforming teacher education in the state to produce more number of quality teachers.

4.12.2. The total colleges of education affiliated to this University are 649 including 7 Government and 14 Government Aided and 628 Self-financing Colleges of Education.

4.12.3. The University has 100% admission in the M.Ed. and M.Phil Degree Programmes for the academic year 2020-21.

4.12.4. The University has introduced the Semester pattern with the Choice Based Credit

System (CBCS) in the M.Ed and M.Phil Degree Programmes from the academic year 2020-2021.

4.12.5. The University has released the monthly newsletters “TNTEU News Track” and “Edu Times” for publishing the day to day academic and administrative activities of the University. The University also publishes an online quarterly journal “TNTEU International Journal of Educational Research (TNTEU IJER).

4.12.6. The University has adopted five villages in the Thiruvallur District, namely Vishnuvakkam, Illupur, Panampakkam, Ayathur, and Govindamedu, under the Unnat Bharat Abhiyan Scheme.

4.12.7. The University has obtained Letter of Intent (LOI) from NCTE for grant of recognition to start a four-year Integrated Teacher Education

Programme (Upper Primary to Secondary – Science Stream) in the University campus.

4.12.8. The Tamil Nadu Teachers Education University has attained 12(B) status from the UGC on 14.07.2021.

4.12.9. All teaching faculty are involved in organizing workshops, seminars and conferences besides their academic and other related activities and conducted more than 1500 Online National and International Webinars, Faculty Development Programmes, Short Term Programmes and face to face Conferences, Seminars and Workshops.

4.12.10. The University has inaugurated a Green House in the University Campus.

4.12.11. The University had received a sum of Rupees one crore as 2nd installment for setting up of Faculty Development Centre (FDC) under the scheme - “Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching”.

4.13. ANNAMALAI UNIVERSITY

4.13.1. The Annamalai University was earlier established as per Annamalai University Act 1928 (Tamil Nadu Act 1 of 1929) and the above Act was repealed and the University has been brought under the control of Government of Tamil Nadu on 25.09.2013 by enacting the Annamalai University Act, 2013 (Tamil Nadu Act 20 of 2013).

4.13.2. The University, accredited with 'A' Grade by NAAC, is one of India's largest public residential universities, situated at Chidambaram sprawling over 950 Acres of land.

4.13.3. The University is a multi-disciplinary unitary residential university with eight Faculties and 49 Departments offering UG, PG, doctoral and post-doctoral programmes in various branches of Engineering, Pure and Applied Sciences, Management and Humanities, Social

Sciences, Agriculture, Marine Science, Indian languages, Education and Fine Arts. Medical Educational institutions attached with the University have been handed over to the Government in Health and Family Welfare Department.

4.13.4. The University has Thirukkural Chair to propagate and disseminate knowledge of classical Tamil grammar. The University also has a Dr. Ambedkar Chair to propagate to ideologies of Dr. Ambedkar.

4.13.5. The University has signed MoUs with International Institutions in the field of Agriculture, Marine Science, Engineering and Technology, etc., The University has also signed an MoU with Neyveli Lignite Corporation offering three years Regular Diploma Course in Mining.

4.13.6. Policies are being developed to inculcate entrepreneurial skills in professional

courses by strengthening the innovation and incubation centre. Opportunities are provided to add on the skills chosen by the students through the Centre for Skill Development and facilitating on the job training.

4.13.7. Efforts are being taken to improve the quality of research by creating a state-of-the-art laboratory and by sensitizing the research scholars on Research Publication Ethics.

4.13.8. Students are given plenty of opportunities for participation in sports, cultural clubs, eco-club, community work, NCC, NSS, YRC, etc.

4.13.9. Faculty members are given the freedom to design their own curriculum and pedagogical approaches within the approved syllabus, including textbook and reading materials selections, arrangements and assessments.

4.14. Dr. J JAYALALITHAA UNIVERSITY

4.14.1. As per Dr. J Jayalalithaa University Act 2021, a new University at Villupuram was notified on 26.02.2021.

4.14.2. A New Vice-chancellor alone was appointed to the University on 26.02.2021. He assumed office on 01.03.2021.

5. TAMIL NADU ARCHIVES

5.1. The role of the Archives has always been vital in the administrative history of the State. Our Tamil kings maintained 'Avana Kalari' and the officer incharge was called 'Olainayagam'. The tradition has continued and the formal origin of the Tamil Nadu Archives may be traced to the Central Record Room created at Fort St. George in 1805. Since the records got voluminous, they were shifted to the well designed present campus in 1909 and was functioning as the Madras Record Office. Later in 1973, it was renamed as the Tamil Nadu Archives and Historical Research. It has been serving the information needs for nearly a century now.

5.2. Records are preserved at the Archives for the use of various Departments and bonafide Research Scholars. The main activity of Tamil Nadu Archives is to centralize all permanent

records, preserve them on scientific lines, throw them open for historical research and make them readily available for official references. The Archives also supplies certified copies of Gazette notifications and electoral rolls to private individuals on request.

5.3. There is a Library which has a collection of 2.26 lakh books and is used for reference by research scholars. Training in Record Management is imparted to personnel who are incharge of record rooms in Government Offices. The research hall equipped with modern facilities remains open from 8 am to 8 pm for research scholars to consult records of more than 30 years. District Gazetteers are also being prepared by a separate wing with Editorial strength.

5.4. The Government has been encouraging the adoption of new technologies to expedite the

process of preservation and to modernize the systems of retrieval of records. While 60% of pre mutiny records have been microfilmed. Centre and State assisted schemes have been sanctioned for scanning of post mutiny records and building of indices with computerized search facility. The first phase of the computerization of catalogues of the library has been completed and second phase is under progress.

5.5. An amount of Rs.8.71 crore has been earmarked as grant-in-aid and following works were carried out under the 12th Finance Commission grants:

- Civil and Electrical works in Tamil Nadu Archives.
- Landscaping in the Tamil Nadu Archives campus.
- Completion of Microfilming of Pre-mutiny records.
- Scanning of full pages of all documents from 1857 to 1899 and storage in CD,

including computerization of indices from 1657 to 1899.

- Preservation of rare books in Tamil Nadu Archives library by binding and lamination.

5.6. Tamil Nadu Archives implemented a project to improve web access to its records and internal networking systems at a cost of Rs.67 lakh from the Tamil Nadu Initiatives fund. Further Rs.1.05 crore has been sanctioned for setting up of Digital archiving.

5.7. SCANNING AND MENDING

To speed up the mending work of deteriorating records and to carry out the scanning work in a faster phase, the Government have sanctioned a sum of Rs.16 crore.

5.8. SCHEMES SHARED BETWEEN STATE AND CENTRE

A sum of Rs.40.43 lakh was sanctioned under Central Financial Assistance for Microfilming of Records for the period of 1907-1913 and 1945-1950.

This is a sharing scheme between Centre and State in the ratio of 75:25 percentage. The work has been entrusted through ELCOT which is in progress.

5.9. TAMIL NADU INNOVATIVE INITIATIVE SCHEME

The Government has sanctioned a sum of Rs.2.50 crore under Tamil Nadu Innovative Initiative Scheme for digitization of East India Company Records, Land Records and to establish Digital Information Centre.

5.10. The Tamil Nadu Archives has started issuing copies from its holding under Right to Information Act 2005 from the year 2011. For the years 2020 and 2021 more than 6,259 applicants are benefitted by obtaining required information from this Archives.

6. TAMIL NADU STATE COUNCIL FOR HIGHER EDUCATION

6.1. The Tamil Nadu State Council for Higher Education (TANSCHE) was established in 1992 by the Government of Tamil Nadu, as per the guidelines of the University Grants Commission. This Council has been executing academic programmes to promote higher education in Tamil Nadu. The Tamil Nadu State Council for Higher Education has been re-constituted, by appointing Vice Chairman and Member Secretary during July 2021, for its effective functioning.

6.2. PAST PERFORMANCES OF THE COUNCIL

6.2.1. TANSCHE has been implementing special care scheme for the benefit of slow learners in 24 Government colleges. Rs.30 lakh is being spent for this scheme every year.

6.2.2. TANSICHE has been implementing soft skill programmes in 62 Government colleges to impart computer literacy, communication skills and personality development.

6.2.3. TANSICHE has been implementing minor Research programmes for College teachers. Each selected teacher is given research grant of Rupees one lakh, to complete their research projects. So far 400 teachers availed the Research Grant.

6.2.4. Under mini Research scheme for post-graduate students studying in colleges, each selected student is given research grant of Rs.15,000/- to pursue their research work. So far 600 students were given research grants.

6.2.5. TANSICHE released major research grant of Rs.25 crore for 212 selected teachers working in colleges and Universities to pursue their research projects

6.2.6. TANSICHE has been conducting Board of Studies meetings to decide equivalence of qualifications and taking action to place them before the equivalence committee.

6.3. PROPOSED ACTIVITIES FOR THE YEAR 2021-22

6.3.1. TANSICHE proposes to form expert committee to standardize and simplify the academic syllabus and examination system to increase the employable skills and entrepreneur abilities among students in Higher Education institutions.

6.3.2. The Council plans to promote coordination among the Government, Aided and Self financing colleges, Universities and Industries to increase the employment trainings and placements.

6.3.3. Under the guidance of the Government, TANSICHE aims to digitalise all the

available learning resources from all Universities and colleges and consolidating best learning resources anywhere in the world and creating new resources based on the need as well as academic merit of the resources.

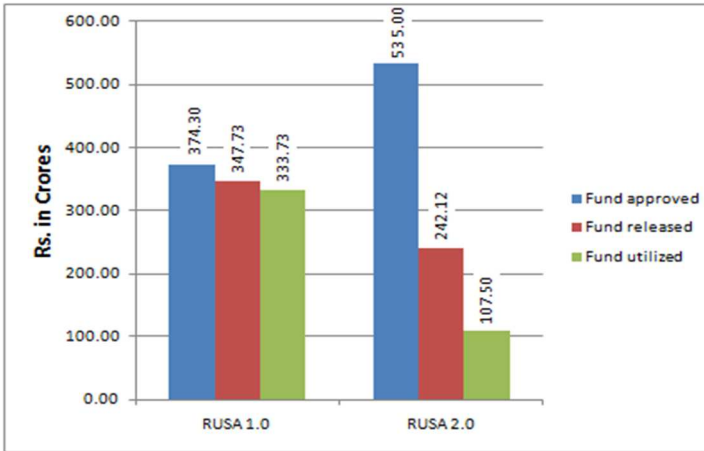
6.3.4. TANSICHE will take steps to improve academic standards of Autonomous colleges and to provide training to teachers and update the syllabus and providing skill development training to students.

7. RASHTRIYA UCHCHATAR SHIKSHA ABHIYAN (RUSA)

7.1. Rashtriya Uchchatar Shiksha Abhiyan (RUSA) scheme is implemented by Union and State Governments with a 60:40 Share respectively. RUSA envisions to attain higher levels of access, equity and excellence in the State Higher Education system. Many Higher Educational Institutions (HEIs) in Tamil Nadu have been benefited under RUSA.

7.1.1. The outcome of RUSA 1.0 is evident in the improved infrastructure in terms of classrooms, laboratories, sports facilities, smart classrooms and technology-enabled learning in the HEIs of the State.

RUSA- Grant Summary



Particulars	Rs. In Crores	
	RUSA 1.0	RUSA 2.0
Fund approved	374.30	535.00
Fund released	347.73	242.12
Fund utilized	333.73	107.50

7.2. With the successful implementation of RUSA 1.0 and satisfactory outcomes of the scheme, RUSA Phase 2.0 was sanctioned by Ministry of Education for Rs.615.78 crore in 2018. Under infrastructure components, institutions which have not availed funding in the first phase were considered subject to compliance to the norms. NAAC accreditation has been stipulated as

mandatory eligibility for funding under RUSA 2.0. RUSA 2.0 has introduced two new components for Enhancing Quality & Excellence in State Universities and Autonomous colleges making a total of 14 components under RUSA 2.0. The State has received approval from Ministry of Education, Government of India, for a grant of Rs.535 crore (Union Share Rs.321 crore + State Share Rs.214 crore).

7.2.1. ENHANCING QUALITY AND EXCELLENCE IN SELECT STATE UNIVERSITIES

Under this component, Rs.100 crore has been sanctioned for Alagappa University, out of which an amount of Rs.15 crore is earmarked for creating an Entrepreneur Hub and Rs.85 crore is allocated for research, innovation, quality enhancement and excellence. MoU with Cornell University, USA has been signed for research collaboration and linkages with Purdue University, University of Michigan, University of Chicago have

been established for theme-based research projects. Around 7700 students have been benefited.

7.2.2. RESEARCH, INNOVATION AND QUALITY IMPROVEMENT

Empirical and applied Research and Development was accorded utmost importance to foster innovation and quality improvements in areas of national priorities. With this objective, Rs.300 crore for six State Universities viz., Anna University, Annamalai University, Bharathidasan University, Bharathiyar University, Madurai Kamaraj University and University of Madras have been approved at Rs.50 crore each. The approved grant comprises Rs.15 crore earmarked for the creation of Entrepreneur Hub and Rs.35 crore for themed research projects. Entrepreneur Hubs have been created by each University under which 130 skill development-related courses have been organized and 10,012 students have been

benefited. The Universities are pioneering research projects under the following themes: -

S. No.	Name of the University	Research Project theme
1	Anna University	Electric vehicle charging station
2	Annamalai University	Health & Environment
3	Bharathidasan University	Health, Energy & sustainable development
4	Bharathiyar University	Cancer Theronostics research centre
5	Madurai Kamaraj University	School of Biomedical sciences
6	University of Madras	Biomedical applications

An amount of Rs.25 crore has been released to each of the six Universities totaling to Rs.150 crore.

7.2.3. Three Universities and 10 colleges have been funded for Rs.80 crore under Infrastructural grants for the

creation of new facilities, laboratories, hostels and for upgrading the existing infrastructure and also to procure equipment to meet the academic demands of the curriculum.

Thus, the State Government along with RUSA has taken efforts to make Tamil Nadu a leading centre of teaching, learning and research in Higher Education.

8. SCIENCE CITY

8.1. The Government took a policy decision to integrate all the Technical Institutes in Taramani area and also all the Technical Institutes of South Chennai area to create a Science City. Accordingly, the Science City was established in 1998 with the prime objective of promoting science and technology.

Promotion of science and technology components involving existing and new institutions, encouraging technology transfer component involving industrial houses and venture capital agencies, promoting global technology monitoring and forecasting and establishing a fully equipped science complex (convention centre) for the benefit of member institutes of the Science City are the important goals of Science City.

8.2. AWARDS

Science City has instituted awards which are selected by an expert committee that is constituted for each discipline.

8.2.1. TAMIL NADU YOUNG SCIENTIST AWARD

Eminent scientists / academicians who have completed their doctorate and are 45 years of age and below and have contributed significantly to the society have been duly honoured with a cash prize of Rs.20,000/- each and a certificate.

8.2.2. TAMIL NADU SENIOR SCIENTIST AWARD

Eminent scientists / academicians who have completed their doctorate and are between 46 and 60 years of age who have contributed significantly to the society have been duly honoured, with a cash prize of Rs.20,000/- each and a certificate.

8.2.3. BEST SCIENCE TEACHER AWARD

In order to recognize Science Teachers from Government and Government Aided Schools, the Science City has instituted the Best Science Teacher Award. Science Teachers have been duly honoured, with a cash prize of Rs.25,000/- each and a certificate.

8.2.4. RURAL INNOVATOR AWARD

Indigenous innovations have been developed by the rural people using cost effective technology for the benefit of the society. To honour such innovators the Rural Innovator Award has been instituted. The award carries a cash prize of Rupees one lakh each and a certificate.

8.3. PROGRAMMES FOR POPULARISATION OF SCIENCE

The following Programmes were conducted under the Science Popularization Programme:-

8.3.1. SCIENCE PROGRAMMES FOR GOVERNMENT SCHOOL STUDENTS

Science City organised 13 science based programmes in six different Government schools in and around Chennai, which included science lectures and science demos, incurring an expenditure of Rs.80,000/-.

8.3.2. NATIONAL SEMINARS ON BASIC SCIENCES

Science City has organised a series of National seminars in the disciplines of Environmental Science, Botany, Physics, Chemistry and Zoology for the benefit of Post Graduate students studying in Government and Government aided colleges in Chennai, Kancheepuram and Thiruvallur Districts. 980 students from 13 colleges participated in the five seminars organised over a period of five days at the Science City Auditorium. The total

expenditure incurred for these programmes was Rs.2.05 lakh.

8.3.3. HANDS-ON TRAINING PROGRAMME ON “LABORATORY TECHNIQUES”

Science City organized two Hands-on Training Programmes in “Laboratory Techniques viz., in Plant Sciences and Biotechnology” and Animal Science and Biotechnology for students pursuing third year B.Sc., in Government and Government Aided colleges in Chennai, Kanchipuram and Thiruvallur Districts. 30 students participated in each discipline in this four days intensive hands-on training provided to them at the Science City and benefitted. The total expenditure incurred in organizing this programme was Rs.1.20 lakh.

8.3.4. WEBINAR PROGRAMMES

Science City in association with the Indian National Young Academy of Science (INYAS), New

Delhi organized 8 (eight) webinars for the benefit of students during the COVID – 19 pandemic lockdown period. More than 5000 students participated and benefited through these webinars.

8.3.5. PREPARATION OF TAMIL NADU SCIENTISTS DIRECTORY

Science City has collected, compiled and created a database of scientists/technologists and innovators which will be linked to the Science City official website in such a way that all sections of the society can benefit, particularly Government and Research students. The total expenditure for this scheme is Rs.2.35 lakh.

8.4. SCHEMES TO BE UNDERTAKEN DURING 2021–22

The State Planning Commission under the TANII Schemes has approved three schemes viz., Creating Innovators Hub in Schools, Organizing

Tamil Nadu Students Science Congress and Summer Training programmes in Basic Sciences for post graduate students. More than 5260 students will benefit from these schemes that would be organised by the Science City at an expenditure of Rs.83.42 lakh.

9. TAMIL NADU SCIENCE AND TECHNOLOGY CENTRE

9.1. In order to establish Science Centres in our State and to take up science and technology popularisation activities, Tamil Nadu Science and Technology Centre was instituted in the year 1983. Tamil Nadu Science and Technology Centre has established Periyar Science and Technology Centre and B.M. Birla Planetarium in Chennai, Anna Science Centre-Planetarium in Tiruchirappalli, District Science Centre, Vellore and Regional Science Centre, Coimbatore. Chennai and Tiruchirappalli Centres have Planetariums too.

9.1.1. Periyar Science and Technology Centre, Chennai was inaugurated on September 17, 1990 and Anna Science Centre, Tiruchirppalli was inaugurated on June 10, 1999 by the Hon'ble then Chief Minister of Tamil Nadu, Dr.Kalaignar M.Karunanidhi. The District Science

Centre in Vellore was dedicated to the nation on January 25, 2011. The Regional Science Centre, Coimbatore was inaugurated on May 6, 2013.

9.1.2. Tamil Nadu Science and Technology Centre is actively engaged in establishment of Science Centres, Science Galleries, Planetariums, research on development of interactive science exhibits and state-wide Science Popularisation activities.

9.2. INNOVATION HUBS IN TIRUCHIRAPPALLI AND COIMBATORE SCIENCE CENTRES

9.2.1. The works of establishing Innovation Hubs in Anna Science Centre Tiruchirappalli and Regional Science Centre, Coimbatore have been completed. The Innovation Hub Tiruchirappalli was established at a cost of Rs.1.50 crore and the Innovation Hub in Coimbatore was established at a cost of Rs.1.80 crore. An Innovation Hub is a place which provides facilities to nurture new

ideas and help develop inquisitive perspective in the youth of today. The Hub has been developed with science labs, technological gadgets, tools, etc., School students will be encouraged to use the Innovation Hub to create innovative products for the benefit of the society. The projects were completed on a 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.

9.3. MODERNISATION OF ANNA SCIENCE CENTRE - PLANETARIUM, TIRUCHIRAPPALLI

9.3.1. Anna Science Centre Planetarium was established in the year 1999. To present the astronomical images with clarity and to show animated astronomical phenomenon to the visitors, the Anna Science Centre – Planetarium will be modernized with a digital planetarium system at a cost of Rs.3.00 crore.

9.4. SCIENCE POPULARISATION ACTIVITIES BEING UNDERTAKEN

9.4.1. Since the year 2009, 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 in Tamil Nadu. This Programme is implemented for the attraction of talent amongst school students to study science and pursue career in research. In Tamil Nadu, during the past 12 years, 81,658 students were honoured with this award and cash awards worth Rs.45.44 crore were distributed to the students.

9.4.2. Tamil Nadu Science and Technology Centre is implementing the Ariviyal Palagai Scheme to conduct activities to popularize Science Concepts in Tamil with the financial assistance of Vigyan Prasar, Department of

Science and Technology, Government of India. Under this scheme a Tamil e-magazine, "Ariviyal Palagai" containing many science articles will be published every month. In addition, workshops and orientation programmes for journalism students on science communication, training programmes for the science communicators and various science activities for the school students will be organized. In 2021-22 the scheme will be implemented at a cost of Rs.31.80 lakh.

9.4.3. A Science Centre (Category-II) will be established in Kanyakumari at a cost of Rs.15.20 crore. The project cost will be shared by the Government of Tamil Nadu and Government of India.

10. TAMIL NADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

10.1. In the year 1984, Tamil Nadu State Council for Science and Technology was formed as an autonomous body under the chairmanship of Honourable Minister for Higher Education, Government of Tamil Nadu. The Council improves the quality of life of the people of Tamil Nadu, at all levels through the implementation of science and technology findings and methods.

10.1.1. During the year 2020-21, the Council has implemented Science and Technology programmes for the benefit of Researchers / Scientists, Students, Farmers, Fishermen and Self Help Group members with a total cost of Rs.374.51 lakh reaching all sections of the society by the State Government.

10.1.2. In addition, Rs.121.72 lakh have been received from Department of Science and Technology (DST), Government of India towards

core-grant support to the Council and specific projects in Science and Technology.

10.2. ACTIVITIES OF THE COUNCIL

10.2.1. STUDENT PROJECTS SCHEME

Final 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. Every year 500 student projects are supported with a cost of Rs.50 lakhs.

10.2.2. ESTABLISHMENT OF SCHEDULED CASTE (SC) AND SCHEDULED TRIBE (ST) CELL

Project titled "Establishment of Scheduled Caste (SC) and Scheduled Tribe (ST) Cell in Tamil Nadu State Council for Science and Technology" was sanctioned by Science for Equity Empowerment and Development Division (SEED), Department of Science and Technology,

Government of India at a cost of Rs.2.16 crore for three years from 2021-22 onwards. This project aims to spread out Science and Technological innovations to uplift the livelihood of the students belonging to SC/ST community.

10.2.3. SCIENCE AND TECHNOLOGY PROJECTS

Under this scheme, financial support is provided to carry out research in sectors such as Agricultural Sciences, Biological Sciences, Environmental Sciences, Engineering and Technology, Medical Sciences, Physical Sciences, Social Sciences and Veterinary Sciences. During 2020-21, 13 research projects on COVID-19 are supported at a cost of Rs.35 lakh.

In addition, 32 research projects supported by Department of Science Technology (DST), Govt. of India at a cost of Rs.84.68 lakh are under different stages of implementation.

10.2.4. YOUNG STUDENT SCIENTIST PROGRAMME

40 School students from each district are Selected and housed in a reputed College / University with research facilities and exposure is given on various aspects of Science and Technology. Every year, 640 students from 16 districts are benefitted with a budget of Rs.25 lakh.

10.2.5. YOUNG SCIENTISTS FELLOWSHIP SCHEME

In this scheme, to learn modern research / sophisticated instrumentation techniques, Scientists and Researchers of our State below 40 years of age are provided with a fellowship of Rs.10,000/- per month for a period of two to six months in addition to their regular salary by their parent institutions. Every year 12 researchers are supported with a cost of Rupees three lakh.

10.2.6. PARTIAL ASSISTANCE FOR SEMINAR / SYMPOSIUM /WORKSHOP

Every year, 125 programmes of seminars and workshops are supported with a budget of Rs.25 lakh benefitting 9,500 students.

10.2.7. POPULARISATION OF SCIENCE AND TECHNOLOGY

Financial support is provided to Universities, Colleges and Voluntary Organizations to propagate Science through conduct of Science Exhibitions, Training Programmes, Popular Lectures on various aspects of Science and Technology. Every year, 23 organizations are supported with a cost of Rs.6.50 lakh benefitting 2,500 people.

10.2.8. TRAVEL GRANT FOR YOUNG SCIENTISTS

Young Scientists and Researchers in Universities, 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. Every year, 10 Scientists are supported with a cost of Rs.2.50 lakh.

10.2.9. ASSISTANCE FOR SCIENCE AND TECHNOLOGY PUBLICATIONS IN TAMIL

Financial assistance is provided to Organizations, Scientists and Authors for publishing science magazines publications in Tamil and also to bring out science related books in Tamil. Every year, 15 publications are supported with a budget of Rupees three lakh.

10.2.10. TAMIL NADU SCIENTISTS AWARD (TANSA)

Tamil Nadu Scientists Award (TANSA) is given to the Scientist belonging to 10 disciplines in Agricultural science, Biological science, Chemical science, Engineering and Technology, Environmental science, Medical science,

Mathematical science, Physical science, Social science and Veterinary science. Every year, 10 Scientists are selected and honoured with a budget of Rupees seven lakh.

10.2.11. INNOVATION AND PRODUCT DEVELOPMENT

The objective is to recognize the creative, novel and innovative ideas from student community and other members of society as innovators and connect them to the formal Research and Development, Educational institutions and Industries.

The selected innovation will be given financial assistance of Rs.50,000/- to 1,00,000/-. During the year 2021-22, this scheme will be implemented with a total cost of Rs.10 lakh.

10.2.12. QUALITY IMPROVEMENT OF SCIENCE EDUCATION IN RURAL SCHOOLS

Every year, 10 programmes (Inservice training) are organised in 10 districts with a budget of Rupees nine lakh benefitting 500 Science teachers.

10.2.13. DISSEMINATION OF INNOVATIVE TECHNOLOGY

For improving employment potential and livelihood, during the year 2020-21, action was taken to support 18 programmes with a cost of Rupees nine lakh benefitting 480 persons. This scheme will be continued during 2021-22 also.

10.2.14. SCIENCE AND TECHNOLOGY CAPACITY BUILDING FOR INDUSTRIAL NEEDS

Every year, programmes are organized covering 15 districts benefitting 4,500 final Engineering and Polytechnic students at a cost of Rs.22.50 lakh.

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

Projects received from research students of various colleges are evaluated and students are supported financially. Every year, 10 research scholars are supported with a budget of Rs.30 lakh.

10.2.16. IMPROVEMENT OF SCIENCE AND TECHNOLOGY INFRA-STRUCTURE FACILITIES AT GOVERNMENT COLLEGES

Every year, three Government Colleges are selected to improve the laboratory equipment facility with the budget of Rs.15 lakh.

10.2.17. PATENT INFORMATION CENTRE (PIC)

Geographical Indications (GI) of our State namely, "Thanjavur Veenai", "Dindigul Locks" and "Kodaikanal Malai Poondu" were registered through the Patent Information Centre of this

Council. The application for registration of another Geographical Indication (GI) tag of our State namely, "Udangudi Panangarupatti" filed by PIC in association with Tirunelveli District Palmyra Products Co-operative Federation Limited and Mother Teresa University is under process.

10.2.18. CELEBRATION OF NATIONAL MATHEMATICS DAY AND NATIONAL SCIENCE DAY

The Council has celebrated the "National Mathematics Day (22nd December) and Science Day (28th February)" in Thiruvallur, Salem, Ramanathapuram and Nilgiri districts during the year 2020-21.

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 (Conference) 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. The Tamil Nadu State Council for Technical Education was established by an Act of the Tamil Nadu Legislative Assembly in the year 2010 to advise the Government in matters relating to development of Technical Education in the State.

12.2. MAJOR ACTIVITIES

In coordination with the National Board of Accreditation, an International Conference on Accreditation on the lines of the Washington Accord and Accreditation Board of Engineering Technology imperatives was conducted.

For the Principals and Placement officers of all Engineering and Polytechnic Colleges, training programme was arranged and a Road map containing 10 key result areas for improvement of

Technical Education was prepared as a perspective plan.

12.3. FUTURE ACTIVITIES

- Studying the gaps in terms of infrastructure, network facilities, human resources, supporting services, etc, which will help the department to enhance the standard of teaching as well as ensure quality of education.
- Conduct awareness programme for +2 students on Tamil Nadu Engineering Admissions by Engineering Admissions Facilitation Centre in all Districts.
- Conduct Training Program for Placement Officers and Principals of Engineering and Polytechnics Colleges along with representatives of industries.

Dr.K. Ponmudy

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 2020-21

TYPES OF COLLEGES	No. of Colleges	OC		BC (Others)		BC (Muslim)		MBC / DNC		SC		SC (A)		ST		TOTAL		Total Admitted
		BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	
Government Colleges	10	52	30	105	31	975	522	641	227	72	24	342	163	16	7	2203	1004	3207
Government Aided Colleges	3	215	80	62	19	925	426	336	150	51	10	164	86	20	4	1773	775	2548
Self Financing Colleges	554	7311	2571	3003	813	28124	14609	14211	6068	1098	907	8050	5061	381	213	62178	30242	92420
Anna University Constituent Colleges	20	275	159	149	55	1342	814	888	398	55	32	487	248	13	14	3209	1720	4929
TOTAL	587	7853	2840	3319	918	31366	16371	16076	6843	1276	973	9043	5558	430	238	69363	33741	103104

TECHNICAL EDUCATION
DETAILS OF STUDENTS ADMITTED TO FIRST YEAR DIPLOMA COURSES IN
POLYTECHNIC COLLEGES FOR THE YEAR 2020-21

TYPES OF INSTITUTIONS	No. of Colleges	OC		BC (Others)		BC (Muslim)		MBC/DNC		SC		SC(A)		ST		TOTAL		Total Admitted
		BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	BOYS	GIRLS	
Government Institutions	51	109	31	3404	387	402	32	3554	325	1932	283	166	37	57	16	9624	1111	10735
Government Aided Institutions	34	220	31	3406	314	493	19	2072	150	790	68	148	29	20	-	7149	611	7760
Affiliated Institutions	4	8	-	64	1	7	-	50	-	30	-	1	-	-	-	160	1	161
Self Financing Institutions	406	1850	223	11740	708	1764	76	8976	541	11603	1685	913	212	316	67	37162	3512	40674
Hotel Management & Catering Technology Institutions	14	1	-	5	-	-	-	6	1	7	-	-	-	-	-	19	1	20
Total	509	2188	285	18619	1410	2666	127	14658	1017	14362	2036	1228	278	393	83	54114	5236	59350

COLLEGIATE EDUCATION
NUMBER OF STUDENTS ADMITTED IN ARTS AND SCIENCE COLLEGES AND
COLLEGES OF EDUCATION DURING THE YEAR 2020-21

Types of Colleges	ADMITTED STRENGTH					
	UG	PG	M.Phil.	B.Ed.	Ph.D.	Total
Government Colleges	94,152	19,046	397	907	287	1,14,789
Government Aided Colleges	69,526	14,533	867	1,472	352	86,750
Self Financing Colleges	1,46,328	26,015	854	53,610	600	2,27,407
Total	3,10,006	59,594	2,118	55,989	1,239	4,28,946

UNIVERSITIES

NUMBER OF STUDENTS STUDYING IN THE UNIVERSITY CAMPUS DURING THE YEAR 2020-21

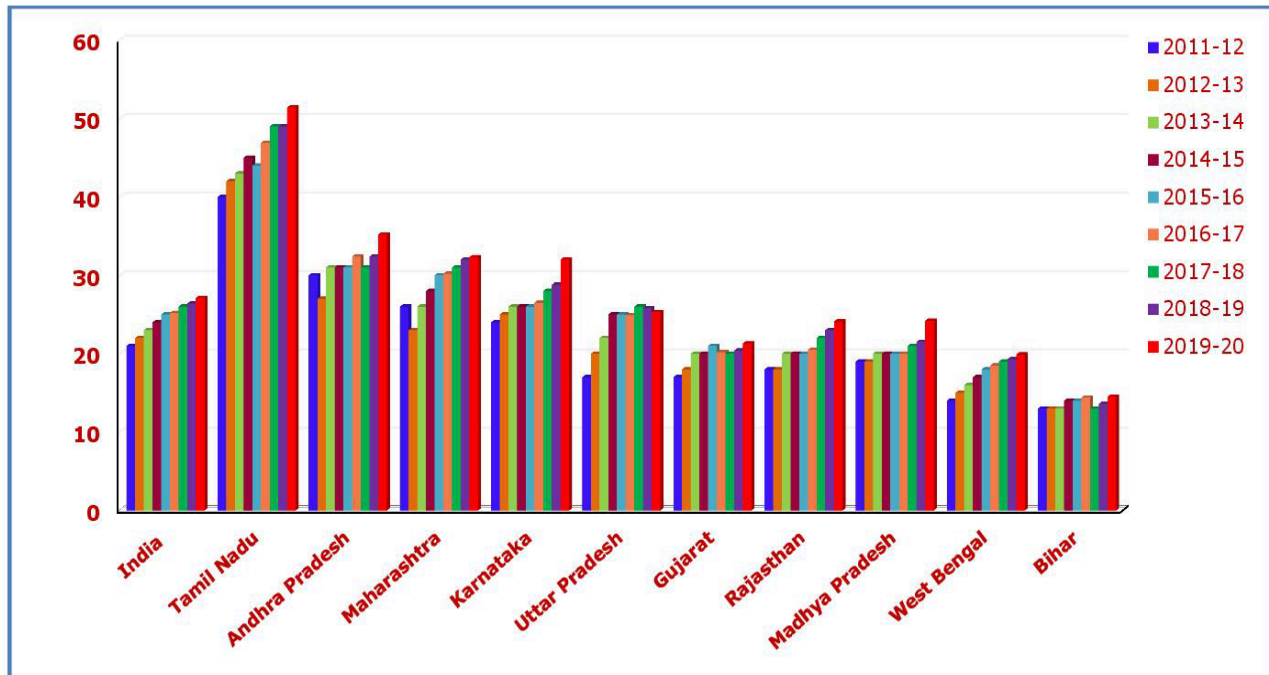
Sl. No.	Name of the University	Students Strength		Total
		Male	Female	
1	University of Madras	1253	1822	3075
2	Madurai Kamaraj University	2225	2425	4650
3	Anna University	8067	5458	13525
4	Bharathiar University	543	870	1413
5	Bharathidasan University	1396	1588	2984
6	Mother Teresa Women's University	-	1121	1121
7	Alagappa University	1728	3057	4785
8	Manonmaniam Sundaranar University	825	1552	2377
9	Periyar University	654	1223	1877
10	Tamil Nadu Open University	8	13	21
11	Thiruvalluvar University	73	103	176
12	Tamil Nadu Teachers Education University	109	120	229
13	Annamalai University	8470	7985	16455
TOTAL		25351	27337	52688

UNIVERSITIES

NUMBER OF STUDENTS STUDYING IN THE DISTANCE EDUCATION DURING THE YEAR 2020-21

Sl.No	Name of the University	Students Strength			Total
		Male	Female	Trans-gender	
1	University of Madras	27451	33111	08	60570
2	Madurai Kamaraj University	2341	2066	-	4407
3	Anna University	2533	2167	-	4700
4	Bharathiar University	23675	17574	02	41251
5	Bharathidasan University	4131	5332	-	9463
6	Mother Teresa Women's University	-	1452	-	1452
7	Alagappa University	38752	36156	-	74908
8	Manonmaniam Sundaranar University	8554	8563	4	17121
9	Periyar University	2677	2659	-	5336
10	Tamil Nadu Open University	5149	7051	-	12200
11	Annamalai University	72121	73314	-	145435
TOTAL		187384	189445	14	376843

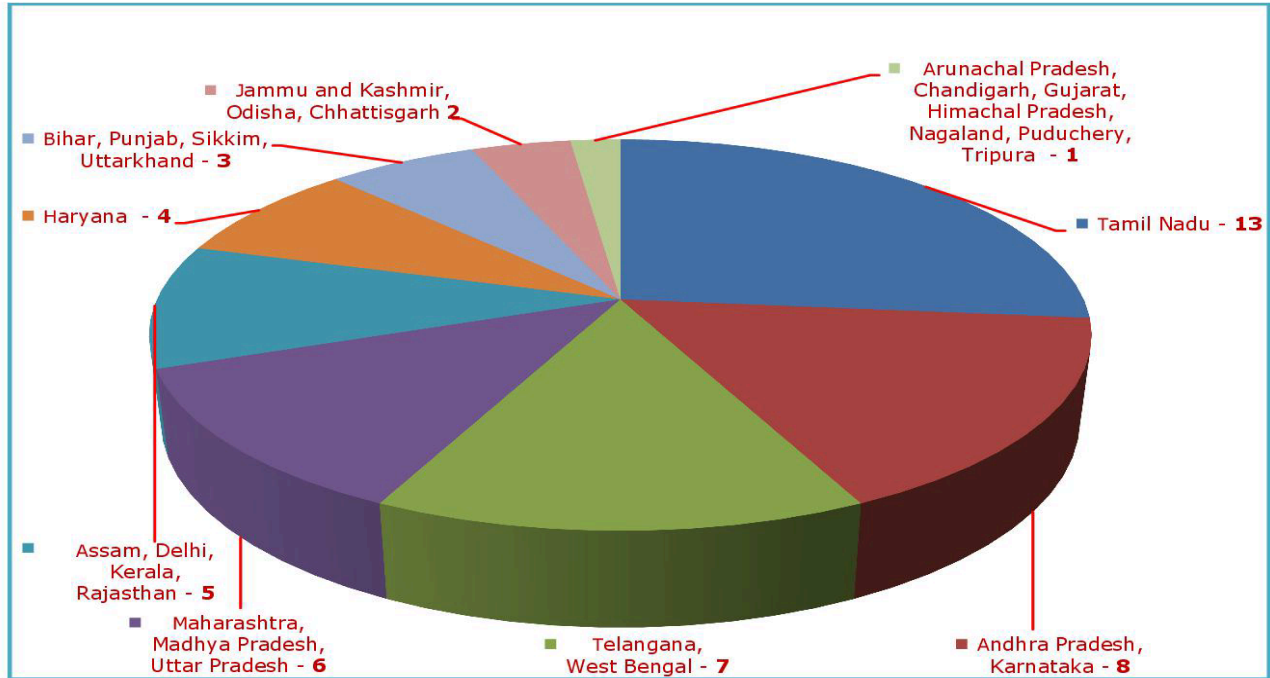
GROSS ENROLMENT RATIO IN INDIA ,TAMILNADU AND MAJOR STATES



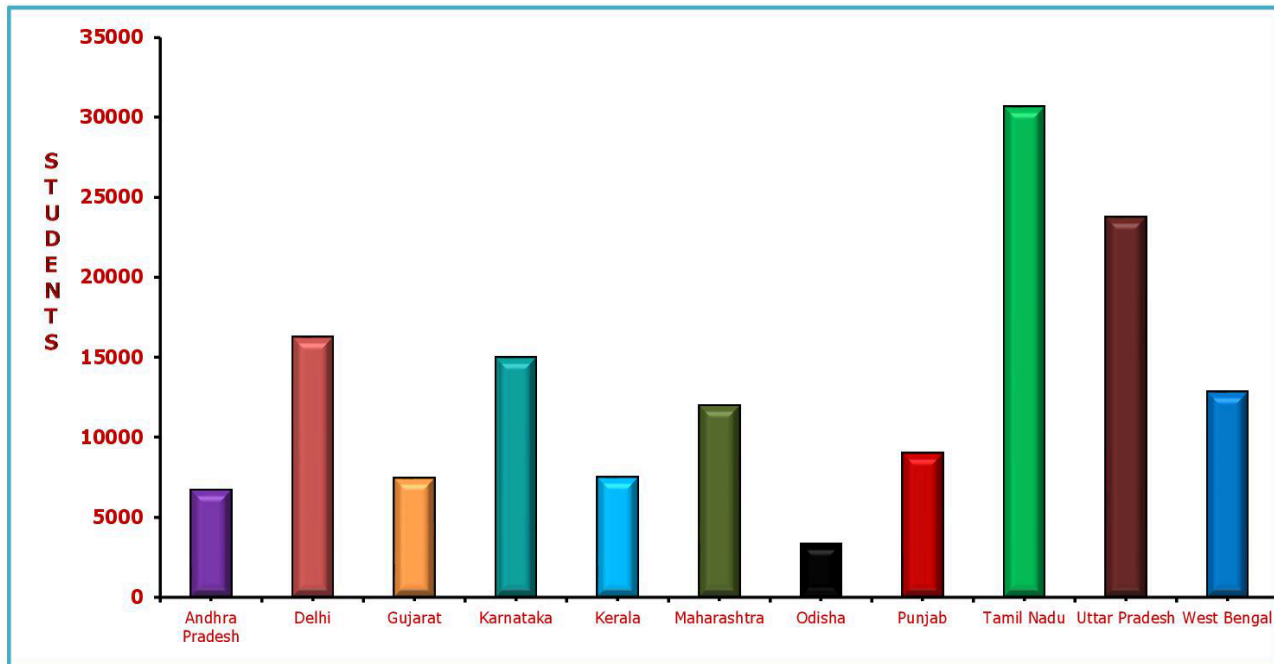
ENROLMENT (GENDER WISE) FOR SC AND ST CATEGORY STUDENTS



STATE-WISE DUAL MODE UNIVERSITIES (2019-20)



STUDENTS ENROLMENT AT Ph.D. LEVEL DEGREE FOR THE YEAR 2019-20



STUDENTS ENROLMENT AT M.Phil. LEVEL DEGREE FOR THE YEAR 2019-20

