No. L4/15276/22/DTE (I)

Dated: 28.04.2022

CIRCULAR

Sub:- Higher Education - Directorate of Technical Education - Plan Budget 2022-23 - Outlay, Earmarking and Write-up - reg.

Ref :- State Plan Budget 2022-23

In connection with the **State Plan Budget 2022-23**, the budget documents including the plan scheme write-up & plan budget outlay with component-wise and institution-wise earmarking of funds is hereby enclosed for your information and reference.

BUDGET OUTLAY & EARMARKING OF FUNDS

Expenditure shall be limited to the outlay provided for each scheme in the budget and according to the funds earmarked for institutions under various scheme components as per the annexures attached.

BUDGET WRITE-UP

Plan budget scheme activities shall be implemented only in accordance with the scheme objectives and for scheme activities as mentioned in the budget write-up *(Write-up in English & Malayalam is attached)*

SANCTION FOR PLAN SCHEMES

Heads of institutions shall issue sanction for proposals under the plan scheme 'Development of Institution' only as per the delegation of powers entrusted in accordance with the government rules in force. Proposals shall be forwarded to the Department for necessary approval in case of all other plan schemes in the budget.

All proposals submitting to this office must specifically mention the relevant head of account, name of the scheme and the component/sub-component of the scheme based on the nature/purpose of proposal. For MW, M&E, M&S & OC, separate proposals must be submitted.

Manpower Requirements for implementing plan schemes such as Research Initiatives, PPP mode schemes, TBI & PAT centres etc requires Government Sanction and to be submitted as a separate proposal.

Also in case of the aforesaid schemes, Activity Report of the centre for the year 2021-22 shall be furnished along with the proposal for the year 2022-23, before 21st May 2022.

Dr. Byjubai T.P
Director of Technical Education (in-charge)

To
Heads of all institutions/offices (Through the website www.dtekerala.gov.in)

Forwarded / By Order

Senior Superintendent

	DEPARTMENT OF TECHNICAL EDUCATION				
	PLAN BUDGET - SCHEME COMPONENTS & FUNDS EARMARKED - 2022-23				
	A. SCHEMES (STATE PLAN)				
Sl No	Name of Scheme	Head of Account	BUDGET 2022-23		
			Rev. 2203/ 2205	Capital PWD 4202	Total
1	2	3	4	5	6
R1	**Strengthening of the Department**	**2203-00-001-93**	**150**		**150**
	Directorate of Technical Education, RDTE Offices & Examination Wing along with SBTE				
	Development of Human Resources (SITTTR)				
C1	**Strengthening of the Department**	**4202-02-800-83**		**75**	**75**
	Directorate of Technical Education, RDTE Offices & Examination Wing				
	Development of Human Resources (SITTTR)				
R2	**Teaching Learning Enhancement & Skill gap reduction**	**2203-00-003-89**	**1350**		**1350**
	Faculty Development in Engineering College				
	Industry Institute Interaction Cell (IIIC)				
	Academic Staff College & State QA				
	Placement and Training				
	Additional Skill Development Programme (ASDP)				
	Scholar Support Programme				
	Students affairs & Counselling Centre+				
	SHE				
	Punarjjani				
	Technology Business Incubation Centres in Polytechnics and Engineering Colleges				
R3	**Development of All Engg. Colleges**	**2203-00-112-41**	**2560**		**2560**
	Development of Engineering Colleges				
	Education Recourse Centres in all Engineering Colleges +KBASE				
	Research Scholarship in all Engineering Colleges				
	Quality Improvement Centres in Engineering Colleges				
	Accreditation of Engineering Colleges				
	Technical Education Quality Improvement Programme (SPFU)				
C2	**Development of All Engg. Colleges**	**4202-02-105-81**		**1200**	**1200**
R4	**Development of All Polytechnic Colleges**	**2203-00-105-79**	**2000**		**2000**
	Development of all Government Polytechnic Colleges				
	Establishment of Production And Training (PAT) Centre in Polytechnic				
	Accreditation of Govt. Polytechnic Colleges				
	Material Testing and Certification centre in Polytechnic Colleges				
C3	**Development of All Polytechnic Colleges**	**4202-02-104-99**		**2200**	**2200**
R5	**Technical High Schools**	**2203-00-103-99**	**600**		**600**
	Technical High Schools				
	National Skill Qualification Frame work in Technical High Schools and Polytechnics (NSQF)				
C4	**Technical High Schools**	**4202-02-103-99**		**600**	**600**

R6	College of Fine Arts	2205-00-101-94	210		210
C5	College of Fine Arts	4202-04-101-99		100	100
R7	Enhancement of Academic Ambience	2203-00-001-92	1000		1000
	Evolving Libraries as Knowledge Centres (Strengthening the Libraries in Engineering Colleges and Polytechnics)				
	Strengthening and Development of Physical Education				
	ICT in Engineering Colleges and Polytechnics				
	Connectivity for National Mission on Education through Information Communication Technologies NMEICT				
R8	Research Initiatives	2203-00-004-93	500		500
	Transportation Engineering and Research Centre				
	Product Design & Development Centre at CET				
	Re-Usable building system at RIT, Kottayam				
	Rural Technology Development Centre				
	Student Satellite Launch Programme at CET				
	Centre for Bamboo Technology				
	Robotics & AI nodal Centre at GEC, Thrissur				
	Centre of Excellence in Systems, Energy & Environment at GCE, Kannur				
	Centre for high performance computing at CET				
	Inter disciplinary research centers at 2 engg colleges				
	Centre for Disaster management at GEC, Thrissur				
	CORaL				
R10	Schemes Coming under PPP mode	2203-00-112-56	40		40
R11	CSS for Polytechnic Colleges (50%CSS)	2203 - 00-105-76 (50% CSS)	200		200
C6	CSS for Polytechnic Colleges (50%CSS)	4202-00-104-93 (50% CSS)		2	2
R12	IIT in Kerala	2203-00-112-62	0		0
	TOTAL (A)		8610	4177	12787

B. CENTRALLY SPONSORED SCHEMES - CENTRAL SHARE

Sl No	Name of Scheme	Head of Account	BUDGET 2022-23		
			Rev.	Capital PWD 4202	Total
1	2	3	4	5	6
R13	Merit Cum Means Scholarship (MCMS) (100%CSS)	2203-00-107-92	20		20
R11	CSS for Polytechnic Colleges (50%CSS)	2203 - 00-105-76 (50% CSS)	200		200
C6	CSS for Polytechnic Colleges (50%CSS)	4202-00-104-93 (50% CSS)		2	2
	TOTAL (B)		220	2	222
	TOTAL (A+B)		8830	4179	13009

	Detailed Budget Estimates - Volume No.I - Page No 429-451					
	DIRECTORATE OF TECHNICAL EDUCATION					
	BUDGET PROVISION 2022-2023 (PLAN)					
	(Rs.in Lakhs)					
SL. No.	Plan 2022-23	"17"	"19"	"24"	"34 OC [3]"	TOTAL
	Head of account	MW	M&E	M&S	OI	
R2	**2203-00-003-89 Teaching Learning Enhancement & Skill Gap Reduction (Rs.1300 L)**					
	Training Programmes (under Academic Staff College) (Rs. 100L)					
	Engineering Colleges -need based					35
	Polytechnic Colleges -need based					35
	CFA, THS -need based					10
	DTE - Training Officer					20
	ASDP (Rs. 20 L)					
	Any 4 Engineering Colleges (4x5)					20
	TBI (Rs. 100 L)					
	CET					8
	GEC, Thrissur					8
	RIT, Kottayam					5
	GCE, Kannur					5
	GEC, Bartonhill					5
	GEC, Palakkad					5
	GEC, Kozhikode					5
	GEC, Wayanad					5
	GEC, Idukki					5
	GPTC, Kaduthuruthy					4
	GPTC, Kalamassery					4
	WPTC, Thrissur					4
	SRGPTC, Thriprayar					4
	SD Centre, Kalamassery					4
	For 41 Polytechnic colleges (0.7 L each - need based)					29
	SSP (Rs. 20 L)					
	Engineering Colleges (9x1)					9
	Polytechnic Colleges (45x0.2)					9
	Technical High Schools (39) - need based					2
R3	**2203-00-112-41 Development of Engineering Colleges (Rs. 2560 L)**					
	Development of Engineering Colleges (Rs. 1675 L)					
	College of Engineering, Trivandrum	20	40	20	120	200
	GEC, Thrissur	20	40	20	120	200
	RIT, Kottayam	20	40	20	120	200
	GCE, Kannur	20	40	20	120	200
	GEC, Bartonhill	15	30	10	120	175
	GEC, Idukki	15	30	10	120	175
	GEC, Palakkad	15	30	10	120	175
	GEC, Kozhikode	15	30	10	120	175
	GEC, Wayanad	15	30	10	120	175

Code	Item					
	ERC (Rs. 300 L)					
	Engineering Colleges (9x16.5)				150	150
	KBase				150	150
	QIP centres (Rs. 250 L)					
	CET				60	60
	GEC, Thrissur				60	60
	RIT, Kottayam				60	60
	Other Enginering Colleges-need based				70	70
R4	**2203-00-105-79 Development of All Polytechnic Colleges (Rs. 2000 L)**					
	Development of All Polytechnic Colleges (Rs. 1700 L)	225	600	45	830	1700
	PAT (Rs. 30 L)					
	WPTC, Kozhikode				5	5
	GPTC, Perumbavoor				5	5
	New PAT centre 1				10	10
	New PAT centre 2				10	10
R6	**2205-00-101-94 CFA (Rs. 210 L)**					
	CFA, Thiruvananthapuram	18.9	18.9	11.2	21	70
	CFA, Mavelikkara	18.9	18.9	11.2	21	70
	CFA, Thrissur	18.9	18.9	11.2	21	70
R7	**2203-00-001-92 Enhancement of Academic Ambience**					
	ICT (Rs. 430 L)					
	Engineering Colleges (9x13)					115
	Polytechnic Colleges (45x5)					225
	Technical High Schools (39x2)					78
	College of Fine Arts (3x4)					12
	Strengthening the Libraries in ECs and Polytechnics (Rs. 400 L)					
	Engineering Colleges (9x8)					72
	Polytechnic Colleges (45x6)					270
	College of Fine Arts (3x6)					18
	Technical High Schools (39x1)					39
	Strengthening & Development of Physical Edn. (Rs. 100 L)					
	Engineering Colleges (9x2.5)					23
	Polytechnic Colleges (45x1)					45
	College of Fine Arts (3x2)					6
	Technical High Schools (39x0.67)					26
R10	**2203-00-112-56 PPP Mode (Rs. 40 L)**					
	TPLC - BH					20
	Bosch - CET					10
	ADAM - BH					5
	Bosch - Kalamassery					5

FOURTEENTH FIVE YEAR PLAN 2022-2027

FIRST YEAR'S PROGRAMME

2022-2023

VOLUME – II

(PART-2)

BRIEF DESCRIPTION OF PROGRAMMES

Research Centre) lab equipment, FPGA board purchase, video recording facility, centre of excellence in design, assistance to research startup units etc.

An amount of ₹ 300.00 lakh is provided for the year 2022-23 for the functioning of the Centre.

11. Performance Based Infrastructural Development (Infrastructure Development of Trivandrum Engineering Science and Technology (TrEST) Research Park)

(Outlay: ₹ 1.00 lakh)

An amount of ₹ 1.00 lakh is provided during 2022-23 as a token provision for the implementation of the scheme under the head, 'Major Infrastructure Development Projects' and under the scheme of Performance Based Infrastructural Development. Additional amount required for the implementation of the scheme during 2022-23 can be utilized from the scheme under the head, 'Major Infrastructure Development Projects'. The amount is earmarked for setting up of infrastructure facilities in TrEST Park.

Directorate of Technical Education

There are 9 Government Engineering Colleges, 3 Govt. aided Engineering Colleges, 45 Government Polytechnic Colleges (including 7 Women's Polytechnic Colleges), 6 Govt. aided Polytechnic Colleges and 39 Technical High Schools functioning under the Directorate of Technical Education (DTE). DTE co-ordinates various activities of engineering colleges (government and aided), polytechnics and technical high schools with the aim of maintaining the standards of curricular and co-curricular activities. In order to enhance the quality of technical education, various schemes and programmes are being taken up. Opportunities are being offered to teachers and students to interact with the experienced and expert academicians and also to visit the various leading educational institutions all over the world. Provision has also been made for waste disposal and greening the campus.

12. Strengthening of the Department

(Outlay: ₹ 225.00 lakh)

The Scheme is formulated as a combination of the continuing plan schemes of previous years related to strengthening of the department. An amount of ₹ 225.00 lakh is provided for the following components during 2022-23.

   a) Directorate of Technical Education, RDTE Offices & Examination Wing (JCTE Office)
   b) Human Resources Development (SITTTR, Kalamassery)

a) Directorate of Technical Education, RDTE Offices & Examination Wing (JCTE Office)

This component is for the development of the Directorate of Technical Education, Thiruvananthapuram, and the offices of the Regional Joint Director of Technical Education at Kozhikode, Kothamangalam and Office of the Joint Controller of Technical Examinations at Kaimanam, Thiruvananthapuram.

The scheme is for the overall development of the department and for the effective implementation of the Digital Document Filing System (DDFS) and other E-Governance and e-training activities, viz, (1) Office modernization including restructuring, furnishing, office equipment etc. (2) Upgrading of network & procurement of computer for the implementation of e-governance and e - training in the DTE's office in the Directorate (3) Digitization of old

paper records (4) Software modification, examination modernization and accounting (5) online question paper delivery system and 6) Other construction and electrical works. Bio-metric punching system need to be set up at all government institutions and provision for the same is also provided. Fund has also been provided for continuance of Green protocol, amenities for differently abled and non- conventional energy initiatives along with proper utilization of water resources, waste water management and energy conservation. The State Board of Technical Education (SBTE) had come into existence in 2012 and got revamped in 2018. The functioning of the unit need to be accelerated and for this provision is made under the scheme.

b) Human Resources Development (SITTTR, Kalamassery)

The State Institute of Technical Teachers Training and Research (SITTTR) is functioning at Kalamassery as the academic wing of the Directorate of Technical Education. SITTTR plays a pivotal role in ensuring the academic standards of Polytechnic education in the state through curriculum development, faculty development, academic monitoring, admission to three year diploma course and providing support to all other project implementation in the Polytechnics. The centre also revises the curriculum of all other technical programmes under the Directorate of Technical Education other than engineering colleges periodically, on a scientific basis as per the technological advancements and latest market requirements.

The State Institute of Technical Teachers Training and Research is envisaged to undertake the following activities under the human resource development component during 2022-23.

- Revision of curriculum of Govt. Commercial Institutes and Govt. Institutes of Fashion Designing, Implementation of revised curriculum of Technical High Schools, other Kerala Government Certificate Examination (KGCE) and Kerala Government Technical Examination (KGTE) in the state. Concluding works of curriculum revision of diploma programmes also is planned for the year 2022-23.
- Conduct of state level workshops, meetings and quality improvement training programme for the faculty and technical staff of polytechnic colleges, Government Commercial Institutes, Government Institute of Fashion Design and Technical high schools, to promote awareness about trends in technology and technical education.
- Academic Inspection of Polytechnic Colleges, Govt. Commercial Institutes, Govt. Institutes of Fashion Designing and Technical High Schools in the state.
- Development of learning resource materials, printing and publication of materials for effective teaching learning process.
- Conduct admission for the Polytechnic Colleges, Technical High Schools, Government Institutes of Fashion Design and Government Commercial Institutes in an online web-based manner including diploma programme (evening).
- Conduct of National/state level seminars/conference in the areas of Technical Education/Emerging areas of Science and Technology.
- Implementation and review of NSQF in Technical High Schools and Polytechnic Colleges.

- Conduct Open house, student project/seminar competitions and awarding certificates and prizes
- Infrastructure development including procurement and minor works.

13. Teaching- Learning Enhancement & Skill Gap Reduction

(Outlay: ₹ 1350.00 lakh)

The Scheme is formulated as a combination of the continuing plan schemes related to teaching learning enhancement and aimed to reduce the skill gap, a major concern in the technical education scenario. An amount of ₹ 1350.00 lakh is provided for the following components. Out of this amount, nearly 50% is expected to be benefitted to the girls/women.

- a. Faculty Development in Engineering and Polytechnic Colleges
- b. Industry Institute Interaction Cell (IIIC)
- c. Academic Staff College & State QA Centre
- d. Placement and Training
- e. Additional Skill Development Programme (ASDP)
- f. Scholar Support Programme
- g. Punarjjani
- h. Technology Business Incubation Centres in Polytechnics and Engineering Colleges
- i. Student Affairs and Counseling Centre (SAAC)
- j. Scheme for Her Empowerment in Engineering Education (SHE)

a. Faculty Development in Engineering and Polytechnic Colleges

The outlay proposed is mainly to take care of the faculty development in engineering colleges and polytechnic colleges through full time and part time M. Tech and Ph.D programmes. Expenditure in connection with the sponsoring of teaching staff of Engineering colleges and Polytechnic Colleges for higher studies, supporting staff to attend conferences, conducting seminars and short term courses in the engineering colleges and Polytechnic colleges, etc. are envisaged in the scheme.

b. Industry Institute Interaction Cell (IIIC)

The Industry Institute Interaction Cell is intended to facilitate the professional development of the students of Govt. Engineering colleges, Polytechnic colleges, Fine Arts Colleges and other Institutions under the Directorate of Technical education tuned to the specific requirements of the institutions.

The specific requirements of the institutions are enlisted as below.

- Training to students and faculty members on the latest technology and industrial know-how by utilizing the services of eminent faculty from nationally reputed institutions and professionals from industries,
- Mentoring of research and academic activities in institutions utilizing the services of professionals/ senior academicians through the adjunct faculty scheme
- Extending support to the institutions for organizing programmes and certified training programmes in newly emerging areas
- Encouraging the Engineering Colleges, Polytechnic Colleges and Fine Arts Colleges to sign Memorandum of Understanding (MoU) with well- established Government and private sector undertakings for availing exposure on the latest industry practices and standards.

404

- Pre-employment training for students of engineering colleges and polytechnic colleges as well as activities of the Career Guidance and Placement Cells in the institutions
- Conduct of induction programmes for the first year students of all institutions. Under IIIC, it is also envisaged the establishment of Human Resource Development (HRD) Cell in institutions to groom the students into confident professionals who can understand and provide solutions to the needs of society by developing their creative talents and giving specific care to their mental/emotional well-being. Providing financial assistance to needy students, especially from GCIs and GIFDs under the directorate, going for internships, is also part of the scheme

C. Academic Staff College & State Quality Assurance Centre

Academic Staff College (ASC) is expected to keep pace with the constant flow of information and knowledge, to update the knowledge base and outlook of the teachers at regular intervals and to stimulate the academic environment for promotion of teaching and research in higher education institutions. Mainly two types of activities are envisaged through ASCs-orientation programmes and refresher courses. It shall have full-fledged facilities to conduct two residential training programmes simultaneously and for national/international seminars and workshops. The facilities proposed include an e-library and reference centre. Also, the capacity building of the administrative staff is brought under ASC. In tune with the Government policy on training, this scheme envisages transforming employees in the Directorate and other institutions under its jurisdiction into fully developed, duty conscious, competent and motivated persons. The twin dimensions of the capacity building scheme are (i) overall personality development by including trainings on stress resilience, time management, emotional intelligence, understanding the public concerns and developing the attitude of service mindedness and (ii) enhancing the domain knowledge including sessions on service rules and regulations, e-tender, e-governance and series of case study workshops to get deep understanding and clarity on exercising the rules and regulations. The trainings are organized at the training institutes in the State as well as at the prominent national institutes.

It is also proposed to construct an academic staff college. The academic staff college is required to organize trainings in synchronization with the State Quality Assurance Cell, with the objective of quality enhancement of the institutions.

State Quality assurance Cell (SQAC)

The Primary aim of the State Quality Assurance Cell (SQAC) is to develop a system for conscious, consistent and catalytic action to improve the academic and administrative performance of institutions. The SQAC has to ensure that whatever is done in the institutions for "education" is done efficiently and effectively with high standards. In order to do this, the SQAC will have to first establish procedures and modalities to collect data and information on various aspects of institutional functioning.

d. Placement and Training

The scheme is meant for imparting apprenticeship training to graduates and diploma holders every year through various industries and organizations and for giving stipends for diploma holders and graduates working as apprentice trainees in the department. The main

objectives of this scheme are to organise centralised walk-in-interviews at various centres in Kerala to select apprenticeship trainees and to conduct awareness and training programmes for the staff and students of polytechnic colleges for improving the effective placement activities. Supervisory Development Centre (SDC), Kalamassery is responsible for the implementation of apprenticeship training programmes, as envisaged in the Apprentices (amendment) Act 1973 & 1986, for engineering graduates and diploma holders in the state. All central/state/private organizations and government departments in the state select apprentice trainees through SD Centre. Apart from apprentice training, some small and medium private organizations approach this office for the recruitment of their permanent employees.

e. Additional Skill Development Programme (ASDP)

The main objective of this scheme is to conduct various skill training programmes for unemployed and financially backward youth of all segments with focus on marginalised segments of the society at Government Engineering colleges. It was proposed to establish Skill Development Training Centres in all Government Engineering Colleges by starting at least one skill training programme in each institution suitable for the society. The trainees are paid with monthly stipend, tool kit and awarded with certificate of competency after successful completion. The expenditure included honorarium to faculty, cost of materials, stipend to the participants etc. for each programme.

f. Scholar Support Programme

The main objective of this programme is to conduct remedial classes for needy students belonging to all categories at institutions under Directorate of Technical Education to improve academic level. To cater the requirement of the large number of students who are academically weak in engineering colleges and polytechnics, remedial classes are being conducted for various subjects. This would ensure better pass percentage. The scheme is to be implemented through all government engineering colleges, polytechnics and technical high schools. Amount is also provided for remuneration to faculty in engaging coaching, expenses for light refreshment to the students, expenses for providing learning materials to the students etc.

g. Punarjjani

Purarjjani, as the term denotes, a unique programme designed by National Service Scheme- Technical cell, Kerala to rejuvenate the discarded and unusable instruments, tools and other materials. The project aims at restoring and reinstating the assets of institutions such as government hospitals, engineering colleges, polytechnics and similar government institutions. The plumbing, sanitation and waste management, electrical repairing etc. are also targeted under the scheme.

h. Technology Business Incubation Centres in Polytechnics and Engineering Colleges

This scheme is to promote entrepreneurial attempts by the students in campuses by establishing Technology Business Incubator in all Engineering colleges and Polytechnic colleges in the State. The main objectives proposed are promoting innovation among budding engineers, commercialise the on-going research, spot and nurture entrepreneurial talents from among the students, conduct entrepreneurship development programmes for students and faculty, professionals employed in the industry and individuals through TBIs. Amount is provided for expanding TBICs in all potential institutes, creation of infrastructural facilities,

creation of additional cubicles, training and awareness programmes, biometric access control and security cameras, additional furniture and computers etc.

i. Student Affairs and Counseling Centre (SACC)

In the present world which is increasingly volatile, uncertain, complex and ambiguous, student support systems are essential for taking care of mental/emotional wellbeing of students. Mechanisms are also required to develop the creative talents of students and mentor them to become confident, well balanced individuals able to contribute to the needs of the society. Establishing SACC in all engineering colleges, polytechnic colleges, CFA and technical high schools is aimed to address these issues.

j. Scheme for Her Empowerment in Engineering Education (SHE)

Scheme for Her Empowerment in Engineering Education (SHE) has been initiated at GCE Kannur. The SHE programme proposes to enable girl students to realize how much potential they have and provide support they require to become great leaders in technical fields. All the activities of SHE are in alignment with the vision 'To create professionally successful and personally fulfilled Women Engineers', catering to girls aspiring to be engineers, girl students undergoing engineering courses and women engineers. In 2022-23, the department aims to extend the scheme to all higher education institutions under DTE. Accordingly, funds are allocated for various programmes under SHE initiative.

14. Development of all Government Engineering Colleges

(Outlay: ₹ 3760.00 lakh)

The Scheme is formulated as a combination of the continuing plan schemes related to development of all Government Engineering Colleges in the state, including infrastructure development and overall quality improvement. An amount of ₹ 3760.00 lakh is provided for the following components:

a. Development of Engineering Colleges

b. Centralized Resource Management System

c. Research Scholarship in all Engineering Colleges

d. Quality Improvement Centres in Engineering Colleges

e. Accreditation of Engineering Colleges

f. Technical Education Quality Improvement Programme (TEQIP phase II).

50% is expected to be benefited to girls.

a. Development of Engineering Colleges

The major components of the scheme include various civil construction works and other activities such as construction of new buildings, development of class rooms, workshops and community auditorium, providing library facilities, laboratories, hostel facilities, augmentation of drinking water system, sewage treatment plant, student amenity centres in all engineering college campuses, converting engineering colleges in to Centre of Excellence, setting up of bio-matric punching system, continuance of Green protocol and non-conventional energy initiatives, proper utilisation of water resources, waste water management and energy conservation, amenities for differently abled personnel, offering postdoctoral fellowships, attending international/national conferences for faculty, signing MoU with leading Institutes/industrial houses and for meeting additional manpower requirements etc.

b. Centralized Resource Management System

The knowledge/learning management system supports the creation, organization, storage, dissemination and preservation of the digital information assets of Engineering Colleges and Polytechnic Colleges. It is proposed to set up a Centralized Resource Management System for coordinating curricular, co-curricular and research activities of all Institutions under the Directorate. The centre will act as a common digital platform for sharing learning resources, library, software, and coordinating different research initiatives/activities taking place in all institutions. Also, the scheme aims to develop content in all subjects and create a repository of all research work, expert lectures and video conferencing done in institutions, addressing the present day need of virtual class rooms and online teaching. The items proposed in 2022-23 include establishment of a Centralized Resource Management System, e-journal, networking, providing server and LAN to host e-resources and procurement of Engineering content learning software.

c. Research Scholarship in all Engineering Colleges

It is proposed to continue to award research scholarships to selected students in engineering colleges for their excellence in research work to improve in-house research activities. The research scholarship is awarded to PhD students and to M.Tech students to enhance the research ambiance. Selection of the students for the award of scholarship will be decided by a committee decided by the Directorate of Technical Education. It is also proposed to award scholarship to M. Tech students who do not have GATE scholarship, from among the eligible M.Tech students and the selection of the candidates will be by the committee for the purpose.

d. Quality Improvement Centres in Engineering Colleges

Quality Improvement Centres are functioning in College of Engineering Thiruvananthapuram, Govt. Engineering College, Thrissur and in RIT Kottayam, in which faculty in Engineering Colleges have the opportunity to undergo PhD programmes. The other six engineering colleges are identified as research centres by KTU and it is proposed to extend the scheme to all Govt. Engineering Colleges in the State. The existing laboratories, workshops, library facilities etc. are to be enhanced. Residential facilities for the QIP research scholars are also to be constructed.

e. Accreditation of Engineering Colleges

Our colleges are with good atmosphere for education. If these colleges are given opportunity to get accredited, the students and faculty will acquire self-esteem as well as employability and Higher Education chances. International visibility and National level recognition also are linked to accreditation. Industries conducting campus interviews are always emphasising the quality of our engineering students. Accreditation makes more confidence and self-esteem in faculty and students. It will also make more employability. Moreover the Technical Education provided from these institutions will be of value, competent to National and International standards. In addition to the above AICTE has mandated that new programmes will be sanctioned only to the institutions having accreditation. Amount is provided for improving facilities in colleges and other preparatory works for getting accreditation of NBA.

f. Technical Education Quality Improvement Programme (TEQIP phase II)

Technical Education Quality Improvement Programme (TEQIP) is a project of Govt. of India to improve academic standard and infrastructure facilities of engineering colleges. In the first phase of TEQIP five engineering colleges were selected and project had been implemented in the period 2003-2009. In TEQIP phase- II, 19 engineering colleges are selected. Under TEQIP- III, 250 institutes will be competitively selected based on the pre notified criteria (based on the quality of the proposal submitted by the institutes). The scheme is envisaged as a 100% Centrally Sponsored Scheme. State Project Facilitation Unit (SPFU) is the designated agency to monitor and control the utilisation of the funds. The amount provided in 2022-23 is for functioning of SPFU for monitoring the scheme.

15. Development of All Government Polytechnic Colleges

(Outlay: ₹ 4200.00 lakh)

The Scheme is formulated as a combination of the continuing plan schemes related to overall development of diploma level education in the state, including infra structural development. The major components of the scheme are a) Development of all Government Polytechnic Colleges b) Establishment of Production And Training (PAT) Centre in Polytechnic Colleges c) Accreditation of Govt. Polytechnic Colleges and d) Material Testing and Certification centre in Polytechnic Colleges.

An amount of ₹ 4200.00 lakh is provided for these components during 2022-23. 25% is expected to be benefitted to girls. A part of the outlay can also be utilized for the functioning of new polytechnic college at Pinarayi Educational Hub.

a. Development of all Government Polytechnic Colleges

There are 45 government polytechnics in the State, 38 General Polytechnics and 7 Women's Polytechnics. In the approach paper to the 13th five year plan it has been recommended to adopt NSQF. The department proposes to implement this system in all polytechnic colleges, at least in one specialization in each polytechnic. The polytechnic education is poised for a drastic change in academic and infrastructural development by modernizing the laboratories, libraries and class rooms. Community polytechnic scheme is being implemented in 31 polytechnics through which the polytechnics reach the needs of the community around them. The community college scheme approved by MHRD as per NSQF norms are also functioning in 5 polytechnic colleges in the state. But still some of the polytechnics established years back need strengthening, rewiring, special repair and maintenance. Most of the existing institutions require construction of additional buildings for administrative blocks, auditorium, academic blocks, workshops, library buildings, new classrooms, sports complexes and laboratories, compound walls, procurement of machinery and equipment and furniture, electrification and so on. Workshops and labs of all polytechnic colleges are in need of modern machinery and equipment, especially for conventional branches like Civil Engineering, Mechanical Engineering etc. in which heavy machinery and equipment are required.

More polytechnic colleges are in the process of establishing the infrastructure needs for AICTE approval. New generation courses are mandatory for the new institutions and this requires setting up of advanced lab facilities. Provision is also made for mandatory requirements by AICTE, such as MOOCS facility, counselling facility, website modification, conversion of at least one polytechnic college into Centre of Excellence, setting up of Bio-

409

metric punching system at all government institutions, continuance of Green protocol and non-conventional energy initiatives, along with proper utilization of water resources, waste water management, energy conservation and amenities for differently abled personnel are envisaged under the scheme.

b. Establishment of Production and Training (PAT) Centre in Polytechnic Colleges

Practical training and Industrial exposure are two essential components of Technical education. Due to limited laboratory facilities and absence of major manufacturing industries in the vicinity of colleges, students fail to acquire sufficient exposure. To overcome this challenge the establishment of a Production and Training Centre associated with the institution is envisaged. Necessary Training in the allied areas like advanced technology, Quality control, management, earn while you learn concept, sales & marketing etc. are also to be incorporated during the course. During 2022-23, it is aimed to extend PAT centres to more polytechnic colleges.

c.   Accreditation of Govt. Polytechnic Colleges

There are 45 Polytechnic Colleges in the Govt. sector and 6 Polytechnic Colleges in the Aided sector functioning in Kerala. Accreditation makes more confidence and self-esteem in faculty and students. It will also make more employability. Moreover the Technical Education provided from these institutions will be of value, competent to National and International standards. In addition to the above AICTE has mandated that new programmes will be sanctioned only to the institutions having accreditation and the amount provided is for augmentation of infrastructure, laboratory facilities, student amenities, hostel and library facilities, development of class rooms, hostels etc.

d.   Material Testing and Certification centre in Polytechnic Colleges

This scheme is for establishing Material Testing and Certification Centres in Government Polytechnic colleges where the civil engineering branch is existing. The materials used for building construction are to be tested and certified by authorized certification centres before they are used in construction. The curriculum of civil engineering branch in polytechnic involves practical classes for testing of materials like bricks, steel bars, cement, concrete tube etc. In the State, testing centres have been established in 5 nodal polytechnics in Kozhikkode, Palakkad, Thrissur, Kalamassery and Thiruvananthapuram. The centres help the students to study the actual process of testing during their course of study and revenue will be generated in the institution by the way of testing fees. The outlay provided is for registration, administrative and maintenance expenses along with procurement of additional machinery for the five centres.

16. Development of Government Technical High Schools

(Outlay: ₹ 1200.00 lakh)

The Scheme is formulated as a combination of the continuing plan schemes related to overall development of technical high school education in the state, including infra structural development. An amount of ₹ 1200.00 lakh is provided for implementing two components in the Scheme viz., a) Infrastructural Development of Technical High Schools and b) National Skill Qualification Frame work in Technical High Schools and Polytechnics (NSQF). 25% is expected to be benefitted to girls.

410

a) Infrastructural Development of Technical High Schools

There are 39 technical high schools functioning under the Directorate of Technical Education. Some of the Technical High Schools are not having own land and are functioning in rented building. Amount is provided for civil works such as construction of class rooms, workshops, laboratories, libraries, toilets and student amenities, purchase of tools, equipment, machinery, computers, other laboratory equipment and biometric punching system. Provision is also made for continuance of Green protocol and non-conventional energy initiatives, along with proper utilization of water resources, waste water management, energy conservation and amenities for differently abled personnel under the scheme.

b) National Skill Qualification Frame work in Technical High Schools and Polytechnics (NSQF)

The All India Council for Technical Education (AICTE), Ministry of Human Resource Development (MHRD) has launched the National Vocational Education Qualification Framework (NVEQF) to be implemented in Polytechnics, Engineering Colleges and other colleges in the University systems from 2012-13. It is proposed to implement the scheme, in Technical High Schools and in some selected Polytechnics. Sectors and specialization under NVEQF identified for the Technical High Schools and Polytechnics include Automobile, Manufacturing, Construction, Power etc.

The amount provided is for resource preparation, arranging faculty development programmes, purchase of machinery and equipment, books, workshops, academic monitoring, seminars/industrial visits in Technical High Schools, Government Institute of Fashion designing (GIFD) and Polytechnic colleges.

17. Development of Fine Arts Colleges

(Outlay: ₹ 310.00 lakh)

The scheme is for the development of three Fine Arts Colleges at Thiruvananthapuram, Mavelikkara and Thrissur. The provision is for the state of the art facilities such as class rooms, art galleries, improvement of studio, student amenity centre, digitization of library and audio visual facilities, student amenities, hostel facilities to students, purchase of equipment required for the three Fine Arts colleges, renovation works etc. The provision is also given for conducting national level art camps/art exhibitions/workshops and national/international seminars for students and faculty of CFA's, both campus-centered and outside Kerala. Provision to meet the expenses related to life models (life study) is also given. Study tour grants for BFA/MFA students of ₹ 5000 per head subject to the effective utilization, guaranteed by the principal are proposed. As a part of motivating budding artists, a 'promising art student' award is proposed for two UG level students per department per institution on merit cum means mode, with annual financial assistance of ₹ 10,000/-.

During 2022-23, Bio-metric punching system need to be set up at all government institutions and provision for the same is proposed. Provision is also made for continuance of Green protocol and non-conventional energy initiatives, along with proper utilization of water resources, waste water management and energy conservation. Special amenities for differentially abled students are also envisaged.

An amount of ₹ 310.00 lakh is provided for implementing the scheme for 2022-23. 18% is expected to be benefitted to girls.

411

18. Enhancement of Academic Ambience

(Outlay: ₹ 1000.00 lakh)

The Scheme is formulated as a combination of the continuing plan schemes related to overall enhancement of academic ambience for technical education in the state, including infra structural development. The major components of the scheme are: a) Evolving Libraries as Knowledge Centres (Strengthening the Libraries in Engineering Colleges and Polytechnics) b) Strengthening and Development of Physical Education c) ICT in Engineering Colleges and Polytechnics and d) Connectivity for National Mission on Education through Information Communication Technologies (NMEICT).

An amount of ₹ 1000.00 lakh is provided for implementing the following components during 2022-23.

a) Evolving Libraries as Knowledge Centres

The scheme aims at automation and digitization of the libraries in all engineering colleges, polytechnics, fine arts colleges and technical high schools. The scheme will make a drastic change in the library management system and will revolutionize the library system to an international standard. The programme includes digitalization of library books in all the institutions, making available online journals in all areas, Library Information Management System (LIMS) software, online referencing of international journals like IEEE, ACM etc. online lending and updating of records, Digital enquiry of books, purchase of books in new titles, hard copy journals, e-journals, furniture for library, purchase of duplicating machines/scanners/printers/computers/photocopier which are required for the automation and digitization, to make reading room facilities available to students and faculty in libraries during extended hours and holidays etc. Extension of the scheme to fine arts college and technical high school is also included.

b) Strengthening and Development of Physical Education

This component is for encouraging and strengthening of physical education in engineering colleges, polytechnics, technical high schools and fine arts colleges. Most of these institutions are located in remote areas and as such do not offer easy access to facilities for sports and games or physical fitness centres. The amount earmarked is for construction works such as stadia complexes, indoor stadia, courts, swimming pools, modern fitness centres, financial assistance for participating state/national level sports events, scholarships, purchase of equipment and consumables for sports and games etc.

c) ICT in the educational institutions under DTE

ICT has the potential to contribute greatly to the practice of engineering education. Most of the class rooms in Government Engineering Colleges and Polytechnics have been already converted in to smart class rooms. Amount earmarked is for providing computers and accessories, digital class rooms, digital faculty rooms, e-learning resources, digital library, campus wide networking and online course management system for the development of all the technical institutions in the State including technical high schools and fine arts colleges.

412

d) Providing Connectivity for National Mission on Education through Information Communication Technologies NMEICT

The Scheme was launched as a Centrally Sponsored Scheme for providing connectivity to institutions named as National Mission on Education through Information Communication Technologies (NMEICT). It is intended to establish a strong communication network between institutions of higher learning which is imperative for the spread of the best practices and the best knowledge modules, encouraging shared learning from the experts in the country. Presently the connectivity to polytechnics and Engineering Colleges provided are changed to OFC backbone. This necessitates additional allocation for the connectivity charges.

19. Research Initiatives

(Outlay: ₹ 500.00 lakh)

The Scheme is formulated as a combination of the continuing plan schemes related to overall development of research activities under technical education in the state, including infrastructural development. The various components grouped together are a) Transportation Engineering and Research Centre b) Product Design & Development Centre in CET c) Re-Usable building system in RIT, Kottayam d) Rural Technology Development Centre e) Student Satellite Launch Programme at CET f) Centre for Bamboo Technology, at GEC TVM g) Interdisciplinary Research Centres at Govt. Engineering Colleges h) Robotics & AI nodal Centre i) Centre of Excellence in Systems, Energy & Environment j) Centre for high performance computing at CET and k) Collaborative Research and Learning (CORaL)

An amount of ₹ 500.00 lakh is provided for implementing these components for 2022-23.

a) Transportation Engineering and Research Centre (TRC)

The Transportation Engineering Research Centre was set up in College of Engineering, Thiruvananthapuram. The TRC research programme emphasize applied research and technology transfer to enhance knowledge in the field of transportation and to solve transportation problems encountered by transportation community and also provides an extensive array of labs, equipment and reference materials. The specific objectives are (1) conduct research relating to highway materials (2) develop good maintenance and construction practices, (3) evaluate the performance of pavements (4) develop accident prediction models (5) develop a data base to support the development of codes, guidelines, standards and manual for sustainable infrastructure development (6) suggest traffic management measures and practices (7) promotion of regional level consultancies (8) to equip the faculty by giving training in India and abroad to keep abreast with the latest developments in the relevant fields (9) conduct training programme and short term courses for the practicing engineers and academicians to transfer the research outputs for implementation (10) to offer research fellowship.

b) Product Design & Development Centre in CET

Product design and Development Centre at College of Engineering Trivandrum was setup as a pilot project which could be replicated in other engineering colleges. The proposed centre would develop and test new designs for products and shall transfer the technology to prospective entrepreneurs. The centre shall also impart training on product design to students

413

and unemployed youth through specialized programmes. The amount provided is for implementing the above activities.

c) Re-Usable building system in RIT, Kottayam

The re-usable building system is to ensure sustainability of expanding urban infrastructure. This is aimed to incorporate innovative materials/structural components to accelerate the turn over time of mass housing schemes. Such interventions would culminate in the evolution of a material use policy for the construction activities in the State to ensure sustainable resource use and environmental protection. This programme is actively participating in the Life Mission programme of the State Government. Amount provided is for research activities in this field.

d) Rural Technology Development Centre

The Rural Technology Development Centre (RDTC) is envisaged to act as a link between academia and local communities, for the transfer of appropriate technology specifically developed for the betterment of the rural technologies. The Rural Technology Development Centre is aimed to develop innovative solutions to develop efficient and effective mechanisms to uplift traditional technologies. The centre acts as a nodal centre for the transfer of technological knowhow connecting the other technical institutions in the state including engineering colleges and polytechnic colleges with the community. The centre can work in three dimensional framework, i) improvisation of machinery involved in rural technologies ii) development of new products using traditional technologies and iii) solution to technical and maintenance problems. The amount is provided for purchase of equipment and other expenses for the functioning of the centre.

e) Student Satellite Launch Programme at CET

It is proposed to launch a student satellite by College of Engineering Trivandrum in collaboration with Indian Space Research Organization (ISRO). This is a long term project which can be materialized in 3-4 years. The project team will include all the Departments of CET which will include undergraduate students, post graduate students and faculty members with an approximate team size of 100. The project will be coordinated by the newly established CET Centre for Interdisciplinary Research (CCIDR) of the College.

f) Centre for Bamboo Technology

Centre for Bamboo Technology has been established at Government Engineering College, Barton Hill. The objectives of the scheme are to conduct R & D on bamboo as a construction material, R & D on value addition to bamboo as a commercial product, use bamboo as bio fuel, network with institutions doing research in bamboo technology, to propagate the use of bamboo as a sustainable source and to conduct annual conference on bamboo technology.

g) Interdisciplinary Research Centres at Govt. Engineering Colleges

The Directorate of Technical Education proposes to establish interdisciplinary research centres in the Govt. Engineering Colleges. The centres are envisaged to act as platforms to facilitate and promote interdisciplinary research among the faculty members, so as to emerge with quality research outputs useful for the society. The centre will encourage the faculty members to undertake multidisciplinary projects at the UG/PG level and create an environment where doctoral studies are carried out under the supervision of faculty members

from different disciplines. It is proposed to establish interdisciplinary research centres in 9 government engineering colleges, in specified are identified by the host institution.

h) Robotics & AI nodal Centre

As part of setting up of Inter-disciplinary research centres at various engineering colleges in the state, the Robotics and Artificial Intelligence Centre was set up at GEC, Thrissur. The idea was to establish a facility to be shared by various engineering colleges, polytechnics and technical high schools under Department of Technical Education, Kerala and function as a centre of excellence in Robotics & AI. The centre aims to conduct advance research pertaining to the fields of Robotics, Automation, and Human-Computer Interaction through concerted efforts across various disciplines of Engineering & Science, through proactive research and development activities, viable consultancy projects, and realizable student projects at UG and PG level.

i) Centre of Excellence in Systems, Energy & Environment (CESEE)

The centre of excellence, set up at GCE, Kannur, aims at providing technical, techno-economic and environmentally compatible solutions to the following societal problems which requires urgent attention of the engineering fraternity in Kerala, i.e., 1) waste management, 2) energy shortage and 3) other related environmental issues. This will be achieved by organizing, research, demonstration, training, public interaction, consultancy and other academic activities in an interdisciplinary domain of systems, energy and Environment. Research in renewable energy, waste management systems, environmental science and system analysis as well as conducting energy audit are the major thrust areas of the proposed CESEE.

j) Centre for high performance computing at CET

Artificial Intelligence is an emerging area in which lot of research potential and job opportunities exist. High Performing Computing is an essential tool for computational schemes such as Machine Learning, Deep Learning, Data Analytics and so on. PhD/UG/PG students get exposure to state of the art technology and can take up quality projects/thesis which require high computational requirement. The centre is proposed to be set up at CET and envisages students to bring up innovative solutions in the field of health care, Agriculture, Robotics and Artificial Intelligence, Automation, self-driving cars, surveillance monitoring, always listening IoT devices etc. by developing their own algorithms and train their model on huge data sets, with the help of the proposed computing facility.

k) Collaborative Research and Learning (CORaL) (New component)

Collaborative Research and Learning (CoRaL) centre acts as a link, facilitating a mutual give and take between research institutes, LSGDs and Government missions on the one side and academic institutions particularly in the 9 Government Engineering colleges in the State, on the other. The major objectives of CORaL are linking research for society outreach and formulating guidelines for facilitating investigators from multiple institutes to take part in a research activity in any of the state funded research centre.

20. Schemes under PPP Mode

(Outlay: ₹ 40.00 lakh)

The following four schemes will be implemented in PPP mode. They are joint programmes with special emphasis given for the national and international players. For these

415

four programmes amount will be provided in a single head from which the same can be utilized.

An amount of ₹ 40.00 lakh is provided for these schemes in 2022-23.

a) Advanced Diploma in Automotive Mechatronics (ADAM) and Centre of Excellence in Mechatronics at GEC, Barton Hill

Government of India has accorded sanction for starting one year Advanced Diploma in Automotive Mechatronics (ADAM) in Govt. Engineering college, Barton Hill in collaboration with Mercedezs Benz Pvt. Limited, Pune. MoU has been signed between Government Engineering College Barton Hill and M/s Mercedes Benz India Private Limited, Pune. Wheel alignment module and auto electrical module are added to the existing facility in collaboration with M/S. Bosch Auto Electricals.

The aim is to convert Centre for ADAM into a Centre of Excellence in Mechatronics. Presently the Centre is focused on Automotive Mechatronics. A comprehensive automotive testing facility is planned to be set up in collaboration with M/S. Bosch India. Also plans to provide expert training in the field of Industrial Robotics. The trained manpower will help the industry to adopt latest technologies to improve quality and work condition with high productivity.

b) Centre of Excellence in Automation Technologies in College of Engineering Trivandrum

It has been decided to establish a Centre of Excellence in the field of Automation Technologies, in association with M/s Bosch Rexroth, in College of Engineering Trivandrum. The concept is to establish master centre at State level-centre of excellence and regional centres in the regional district-centres of competency, in association with M/s Bosch Rexroth a German company for which an MoU has already been signed. It is also proposed to start a PG programme in automation technology and conduct research programme. Training will be given to the faculty and students of nearby engineering and polytechnic colleges in the region. Joint certification will be provided and thus the employability of students will be ensured. Fund is earmarked for the training, up gradation of laboratories of the centre, infrastructural development and other on-going works.

c) Centre of Competence in Automation Technologies in Govt. Polytechnic College, Kalamassery

The Govt. Polytechnic College, Kalamassery is situated at the industrial centre of Ernakulam district. In the year 2013-14 it has been decided to establish a Centre of Competence in the field of Automative Mechatronics, in association with M/s Bosch Rexroth, in Govt. Polytechnic College, Kalamassery. The Centre of Competence in Govt. Polytechnic College, Kalamassey will be one of the third centre of its kind in India, supported by M/s Bosch Rexroth, which will arrange machinery and equipments for the setting up of the state of the art laboratory on Hydraulics, Pneumatics, Sesorics, PLCs and Mechatronic. The joint efforts of Government Polytechnic College Kalamassery and Bosch Rexroth in establishing the training centre will foster an excellent industry-academic partnership and make a notable contribution to enable India to gear up for the global challenges in manufacturing sector. Fund is provided for stationary, preparation of learning materials, providing food and refreshment, maintenance and installation of lab kits, infrastructural development, course materials for participants etc.

d) Two year M.Tch programme in Translational Engineering under Translational Research & Professional Leadership Centre (TPLC) Barton Hill, Thiruvananthapuram

The Department of Higher Education had given sanction to start a one year diploma course in Translational Science and Engineering and later sanction was granted to change it to an M.Tech programme in Translational Engineering. This programme is being conducted in collaboration with the Columbia University and the University of Montreal, Canada and Institutes of Excellence like IITM Chennai. Under this scheme, fund is provided for the following components- (1) M.Tech in Translational Engineering (2) TPLC-Student/professional focus (3) Distinguished Visiting Scholar Programme (4) Incote (International conference on Translational Engineering) (5) TPLC-manpower and (6) International internship programmes. Amount is provided for developing the centre into a Centre of Excellence in Translational & Professional leadership, there by paving the way to moulding socially-committed and ethical professionals for future.

21. Centrally Sponsored Schemes for Polytechnics (50% SS)

(Outlay: ₹ 202.00 lakh)

The components of the scheme are upgradation of existing/setting up of new polytechnics (under the scheme of co-ordinated action for skill development of MHRD), construction of women's hostel in polytechnic colleges and Community Development through Polytechnics.

An amount of ₹ 202.00 lakh is provided as state share for these components for the year 2022-23. Additional amount will be released in proportion of central assistance.

22. Education Hub at Pinarayi (New Scheme)

(Outlay: ₹ 700.00 lakh)

As per the order No. G.O (Rt) No.828/2020/ID dated 01.10.2020, Government sanctioned the establishment of an Education hub at Pinarayi Village in Kannur district. Polytechnic college, ITI, Kerala Institute of Hospital Management, IHRD College of Applied Science, Civil Service Academy and a Bio-diversity park are the institutions proposed in this Education Hub. An amount of ₹ 700.00 lakh is earmarked for establishing the education hub for the year 2022-23. Amount earmarked under Industrial Training Department (ITI), Tourism Department (Kerala Institute of Hospitality management), Environment and Climate change Department (Bio Diversity Park) and Higher Education Department (Polytechnic College, IHRD College of applied Science and Civil Service Academy) can also be utilized for this scheme.

417

4. **District Institute of Education and Training(DIET) (60% CSS)**

(Outlay: ₹ 1800.00 lakh)

District Institute of Education and Training (DIET) was a 100% CSS based on the National Policy on Education 1986. From 2015-16 onwards the funding pattern of DIET has been changed to 60:40.   The scheme is envisaged to create a viable institutional infrastructure, an academic and technical resource base for orientation, training and upgradation of knowledge, computer and pedagogical skills of the school teachers.

An amount of ₹ 1800.00 lakh is anticipated as the central assistance for the implementation of the scheme during 2022-23.

5. **Multi Sectoral Development Programme for Minorities- Merit cum Means Scholorship (100% CSS)**

(Outlay: ₹ 20.00 lakh)

An amount of ₹ 20.00 lakh is anticipated as central assistance for implementing the scheme, Merit cum Means Scholarship for Minority Students in Technical Courses, during 2022-23.

B. Higher Education

1. **Rashtriya Ucchatar Shiksha Abhiyan (RUSA) (60% CSS)**

(Outlay: ₹ 7500.00 lakh)

Rashtriya Uchchatar Shiksha Abhiyan (RUSA) is a centrally sponsored programme of Government of India, where the states have an opportunity to tap huge amount of central resource.   The Kerala State Council of Higher Education has been designated as the implementing agency of the scheme. A Project Directorate has been created under Government for the preparation of projects for the scheme. The scheme aims to increase the Gross Enrolment ratio of citizens aged between 18 to 23 from the present 19.4% to 32% by the next 5 years' time and to contribute improvement in the performance of teachers and educational institutions through access, equity and excellence, implementation of examination reforms, activities approved under the GoI guidelines etc. As per the RUSA guidelines the central and state share of fund is in the ratio of 60:40. Central assistance for the development of polytechnics is also given under this scheme.

An amount of ₹ 7500.00 lakh is anticipated as the central assistance for the implementation of the scheme during 2022-23.

2. **State Level NSS Cell (100% Central Share)**

(Outlay: ₹ 80.00 lakh)

National Service Scheme activities are carried out in Universities and Educational Institutions in Kerala and the expenditure is met by the assistance from Government of India. For the functioning of the state level NSS cell, it is anticipated that Government of India will provide an amount of ₹ 80.00 lakh as 100% assistance during 2022-23.

9.5 MEDICAL AND PUBLIC HEALTH

Health Services

1. **National Health Mission (60% Central Share)**

(Outlay: ₹ 72720.00 lakh)

Framework for Implementation of National Health Mission of Ministry of Health and Family Welfare, GOI having five financing components to states shall be based on the

Development Programmes and Strengthening District Planning Process etc'. An amount of ₹ 150.00 lakh is anticipated as 50% central share for the functioning of KILA − CHRD (erstwhile SIRD) during the year 2022-23.

IV. IRRIGATION AND FLOOD CONTROL

4.3 COMMAND AREA DEVELOPMENT

1. CADA works for MVIP (50% Central share)

(Outlay: ₹ 10.00 lakh)

An amount of ₹ 10.00 lakh is provided during 2022-23 as 50 % central share for CADA works of MVIP. The amount is provided for constructing field channels, field drains and for system corrections.

4.4. FLOOD CONTROL AND ANTI SEA EROSION

Flood Management (Part of PMKSY)

1. **PradhanMantri Krishi SinchaiYojana (Kuttanad Flood Management Component (50% Central share)**

(Outlay: ₹ 550.00 lakh)

M.S. Swaminathan Research Foundation has prepared a study report for the development of Kuttanad wetland ecosystem. The Kerala State Planning Board also prepared a package during 2019 for the revival of flood affected Kuttanad region. The major intervention suggested in these reports is the strengthening of infrastructure support to paddy cultivation. The outer bund construction and strengthening around padasekharams is critical to prevent frequent distress from flood related crop loss.

During 2022-23, an amount of ₹ 550.00 lakh is provided as 50% central share of the Centrally Sponsored Scheme. The amount is provided for clearing the pending bills of KEL II, KEL III, KEL IV schemes, and also for settling the bills of Thanneermukkom barrage. No new works are allowed under PMKSY-flood management during 2022-23. For continuing works, issuance of Administrative Sanction/new tenders for new components should not be taken up.

The outlay is to avail assistance from Government of India under flood management programme. The cost escalation not approved by Government of India would not be supported from this provision including widening the width of bunds.

IX. SOCIAL AND COMMUNITY SERVICES

9.3 TECHNICAL EDUCATION

1. **Centrally Sponsored Schemes for Polytechnics (50% SS)**

(Outlay: ₹ 202.00 lakh)

The components of the scheme are upgradation of existing/setting up of new polytechnics (under the scheme of co-ordinated action for skill development of MHRD), construction of women's hostel in polytechnic colleges and Community Development through Polytechnics.

An amount of ₹ 202.00 lakh is provided as central share for these components for the year 2022-23.