PLAN BUDGET 2018-19 - EARMARKING OF FUNDS and TOTAL BUDGET OUTLAY AND SCHEME WRITE-UP- REG.

MINUTES OF THE MEETING OF THE OFFICERS HELD IN DIRECTORATE OF TECHNICAL EDUCATION ON 07.04.2018

The meeting was conducted to discuss earmarking of plan funds provided in the budget 2018-19 and other matters regarding issuing sanction for proposals from various institutions. The meeting started at 03.00 P.M in the chamber of the Director of Technical Education.

The following officers attended the meeting:

1) Dr. K.P.Indiradevi, Director of Technical Education
2) Shri. Sasikumar.K.N, Senior Joint Director (PS)
3) Shri. R. Gopakumar, Senior Finance Officer
4) Shri. Soju.S.S, Assistant Director (Projects)
5) Shri. Nazarudeen.A, Senior Superintendent, Planning section

EARMARKING OF PLAN FUNDS 2018-19

In connection with the plan funds provided in the State Budget 2018-19 for the Department of Technical Education, it is decided to earmark funds for institutions as per the annexure attached.The funds earmarked are subjected to review during the year based on the fund utilisation of respective institutions. Details w.r.t special projects viz. Accreditation, Robotics Lab and other schemes shall be intimated in due course.

BUDGET OUTLAY AND SCHEME WRITE-UP - 2018-19

As per the requests of heads of institutions during plan review meetings, it is decided to circulate the total department budget outlay 2018-19 and the scheme write-up 2018-19 for quick reference. Heads of institutions shall ensure that the expenditure is planned only for those components as mentioned in the write-up. The write-up is also attached.

WEEKLY/MONTHLY PLAN REVIEW BY SCHEME MONITORING OFFICERS

The meeting also decided to chart out a schedule for the monitoring officers of plan schemes to conduct weekly and monthly review of plan progress of the department in co-ordination with the respective section superintendents to ensure that proposals from institutions are dealt with avoiding undue delay.

The meeting concluded at 03.30 P.M

Please see attached the documents as read above.

Dr. K P Indiradevi
Director of Technical Education (in-charge)

പതിമൂന്നാം പഞ്ചവത്സര പദ്ധതി

THIRTEENTH FIVE YEAR PLAN

2017-2022

രണ്ടാം വർഷ പരിപാടി

SECOND YEAR'S PROGRAMME

2018-2019

വാല്യം – II

VOLUME – II

പരിപാടികളുടെ സംക്ഷിപ്ത വിവരണം

BRIEF DESCRIPTION OF PROGRAMMES

8. Institute of Human Resources Development (IHRD)

(Outlay: ₹2000. 00 lakh)

IHRD established during 1987 is an autonomous body fully owned and controlled by State Government. There are 9 engineering colleges, 8 model polytechnics, 44 colleges of applied sciences, 15 technical higher secondary schools, 2 regional centers, 7 extension centres and 2 model finishing schools. The major developmental activities during the year 2018-19 are:

1. Construction of building on a priory basis & maintenance works
2. Purchase of machinery equipments, library books & furniture for the educational institutions of IHRD
3. Training on gender empowerment schemes like LED Bulb making, installing and maintaining solar energy panels and inverters, Bio Medical Equipment repair Centres

An amount of ₹ 2000.00 lakh is provided for the year 2018-19.

9. Trivandrum Engineering Science and Technology (TREST) Research Park

(Outlay: ₹100 .00 lakh)

The establishment of Trivandrum Engineering Science and Technology (TREST) Research Park is to enhance Industry- Institute interaction and to promote fundamental and applied research. It is modeled in similar lines to Techno Park by giving emphasis to research rather than commercial activities The Research Park will work closely with College of Engineering Trivandrum. The project envisages encouraging industries to establish their research centre in the research park and utilize the laboratory facilities, research facilities available in the CET and the expertise of faculty and students for research. An amount of ₹100.00 lakh is provided for the year 2018-19 for the functioning of the Centre.

10. Government College of Engineering, Thiruvananthapuram

(Outlay: ₹300.00lakh)

The College of Engineering, Trivandrum was established in 1939 as the first Engineering College in the then Travancore State. Over the years, the intake of students increased and as of now with eight full-fledged departments offering eight undergraduate, 19 postgraduate and doctoral programmes under the University of Kerala, the College has around 3500 students, 285 teaching staff and 290 non-teaching staff. B.Tech, B.Arch, M.Tech, M.Plan, MCA and MBA and evening courses are also offered by the College.Various civil construction work such as Hostel facilities, building for industrial engineering department, construction of FM lab, PG hostel, geo materials research and testing centre, research apartment and Industrial production block are provided. An amount of ₹300 .00lakh is provided during 2018-19.

11. Government College of Engineering, Thrissur

(Outlay: ₹300. .00lakh)

Government Engineering College Thrissur (GEC Thrissur), an ISO 9001: 2008 certified institution is one of the most prestigious and reputed technical education institution in south India. The College was established in the year 1957 with under graduate programmes in Civil, Mechanical and Electrical engineering branches. The amount provided is for hostel facilities, academic block, student amenities, construction of student amenity centre ect. An amount of ₹300.00 lakh is providedfor these activities during 2018-19.

12. Government College of Engineering, Kannur

(Outlay: ₹300.00lakh)

The Engineering College established in 1986 offers B.Tech courses in Civil, Mechanical, Electrical and Electronics, Electronics & Communication and Computer and four PG courses. College of Engineering and Technology - Payyanur was established in the year 2011-2012 to fulfil a long felt public need for an excellent engineering institute in North Malabar. Amount provided is for construction of new block for computer science department, library block and completion of other ongoing civil works. An amount of ₹300.00lakh is provided for these activities during 2018-19.

13. Rajiv Gandhi Institute of Technology, Kottayam

(Outlay ₹300.00 lakh)

The Government Engineering College, Kottayam was started in 1991 and later named as Rajiv Gandhi Institute of Technology. The institution offers B.Tech course in five disciplines and B.Arch, M.Tech course in five specializations and MCA with intake of 60 are also being conducted AICTE has approved this institution as a QIP Centre.

Civil construction works such as men's hostel, computer science block, Architectural block, lecture hall complex, compound wall, Indoor stadium, PG block of Mechanical engineering department, etc are also proposed. The amount provided is also for the improvement of infrastructural facilities like hostel extension amd providing peripheral requirements for the co-curricular/ extracurricular activities of the inmates like fitness centres,. An amount of ₹300.00lakh is provided for these activities in 2018-19.

14. Development of other Engineering Colleges

(Outlay: ₹1000. 00lakh)

The provision is for giving assistance to 5 Engineering Colleges at Idukki, Wayanad, Kozhikode, Barton Hill (Thiruvananthapuram) and Sreekrishnapuram (Palakkad) established during1999-2000. The conditions of these Engineering Colleges have to be improved and amount is provided for environment lab block for civil engineering department and boys hostel in GEC Barton hill, boys hostel in GEC Palakkad, internal road and rain water harvesting in GEC Idukki, new building for mechanical and electrical engineering department in GEC Wayana, new building for library, hostels in GEC Wayanad, Boys hostel for GEC Idukki, Workshop block, academic block, roofing for ladies hostel in GEC Barton hill and auditorium in GEC Sreekrishnapuram. Construction works in different stages of execution have to be continued and completed on a priority basis. An amount of ₹1000.00 lakh is provided during 2018-19.

15. Development of All Government Polytechnics

(Outlay: ₹3400.00 lakh)

There are 45 Government polytechnics in the State. Government sector polytechnics consist of 38 general polytechnics, 7 women's polytechnics. Some of the polytechnics started much earlier are in need of strengthening, special repair and maintenance. Moreover, those polytechnics functioning in rented buildings are to be given priority along with the development of infrastructure facilities in the existing polytechnics. Most of such buildings require construction of additional buildings for administrative and academic blocks, workshops, library buildings, new class rooms, sports complexes and laboratories, compound walls, procurement of machinery andequipment, furniture and electrification. In order to provide sufficient facilities in accordance with the revised curriculum, most of the

polytechnics are to be equipped with modern equipments. Amount is also provided for the establishment of new polytechnics for which work has already been started. An amount of ₹3400.00lakh is provided for the scheme development activities of existing as well as new government polytechnics during 2018-19.

16. Development of Technical High Schools

(Outlay: ₹1200.00 lakh)

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. It is proposed to upgrade to THSS will facilitate higher secondary education to the entire intake of THS, empowering them to take a career choice for technical higher studies from the Xth or XIIth level Amount is proposed for civil works such as construction of class rooms, workshops, laboratories, libraries, toilets and student amenities, purchase of tools, equipments, machinery, computers and other laboratory equipments. An amount of ₹1200.00 lakh is provided for the implementation of the scheme during the budget 2018-19.

17. Fine Arts Colleges, Thiruvananthapuram, Mavelikkara &Thrissur

(Outlay: ₹490.00lakh)

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, 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 a National Art Camp for students of selected art institutions and national / international seminars. An amount of ₹490.00 lakh is provided for the year 2018-19.

18. Placement & Training

(Outlay: ₹75 .00 lakh)

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. Even though many industries and organizations in the state are imparting apprenticeship training to graduates and diploma holders, all the registered candidates could not be sent for training. In this context, training facilities are identified at various institutions under the control of Directorate of Technical Education. Government has accorded sanction for training 350 candidates (300 diploma holders and 50 graduates). Awareness and training programmes are to be conducted for the staff and students of polytechnic colleges for improving the effective placement activities. 50% of stipend will be reimbursed by the Board of Apprenticeship training, Southern Region, Chennai. An amount of ₹75.00 lakh is provided for the scheme during 2018-19.

19. Faculty Development in Engineering Colleges and Polytechnic Colleges

(Outlay: ₹800 .00 lakh)

The outlay provided is mainly to take care of the Faculty Development (Quality Improvement Programme) 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; sponsoring faculty and staff for conferences, conducting seminars and short term

courses in the engineering colleges and polytechnic colleges etc. are envisaged under this scheme. An amount of ₹800 .00 lakh is provided for the scheme during the year 2018-19.

20. Directorate of Technical Education and its Offices/Examination Wing

(Outlay: ₹200 .00lakh)

Nearly 200 employees are working in the Directorate and they are deployed in different sections. The amount provided is for office modernization, upgrading network & procurement of computer for the implementation of e- governance and e- training, infrastructural requirements for the directorate building, digitalization of paper record software modification and examination modernization, accounting and office modernization including purchase of printers, photocopiers, fax machines etc for Regional Directorates of Technical Education and the office of the Controller of Examination are also proposed. An amount of ₹200.00 lakh is provided for the year 2018-19.

21. Capacity Building of Staff in the Directorate of Technical Education

(Outlay: ₹30.00 lakh)

The department proposed capacity building of staff in the Directorate of technical Education, regional directors, and JCTE office in various levels. As a part of E-Governance project, which is being implemented in the Directorate, department has proposed for computer training at IMG, engineering colleges and other leading training institutes. The training/orientation programmes not covered under the purview of FSDTC and SITTTR and organized commonly for faculty and administrative staff of the department is also proposed under this scheme. An amount of ₹30.00 lakh is provided for the training needs during 2018-19.

22. Industry Institute Interaction Cell

(Outlay: ₹150.00 lakh)

The Industry Institute Interaction Cell is intended to impart training on latest industrial know-how to the students of government engineering colleges, polytechnic colleges and fine arts college students by utilizing the services of eminent faculty from nationally reputed institutions and professionals from industries. Under visiting faculty and adjunct faculty schemes all government engineering colleges, polytechnics and fine arts colleges can engage eminent faculty from IITs, NITs, institutions of national repute and experts from well-known industries and professionals from Government sector for delivering expert lectures for giving training to students and faculty members for a short period of a few days to 4 weeks. This will provide an exposure on the latest industry practices and standards. The Industry Institute Interaction cell can train graduates and diploma holders in the newly emerging areas which will help them to fetch jobs in IT related industries. An amount of ₹150.00lakh is provided for the scheme during 2018-19.

23. Development of State Institute of Technical Teachers Traning and Research, Kalamassery (Human Resource Development)

(Outlay: ₹200.00 lakh)

The curriculum development centre at Kalamassery was formed to carry out syllabus revision and curriculum development of three year engineering diploma courses in the different engineering branches and various engineering trades in Technical high schools. As per G.O.(Ms) No.604/2014H.Edn dated 25.07.2014 this Centre has been renamed as State Institute of Technical Teachers Training and Research Centre(SITTTR).

The amount is provided is for the following activities during the year 2018-19.

1. Conduct curriculum evaluations of Revision 2015 of Polytechnic Colleges, Govt. Commercial Institutes, Govt. Institutes of Fashion Designing and Technical High Schools, other Kerala Govt. Certificate Examination and Kerala Govt. Technical Examination in the state.

2. Academic inspection of Polytechnic Colleges, Govt.Commercial Institutes, Govt. Institute of Fashion Designing and Technical High school in the State.

3. Develop learning resource material, printing and publication of materials for effective teaching learning process

4. Conduct admission for the Polytechnic Colleges, Technical High Schools, Govt. Institutes of Fashion Design and Govt. Commercial Institutes in an online web based manner including Diploma Programme (Evening)

5. Conduct National seminars/ conference in the areas of Technical Education/emerging areas of Science & Technology

6. Industrial training for the faculty and lab staff, assistance to students for Industrial training.

7. Implementation and review of NVEQF in technical high schools and polytechnics

8. Conduct student project/seminar competitions and awarding certificate prizes

9. Purchase of computers and other equipment required for SITTTR

10. Minor work such as temporary partitions, false ceiling for computer lab, office modernization with wooden partition etc

11. Construction of conference hall cum faculty hostel

An amount of ₹200.00lakh is provided for implementing this scheme during 2018-19.

24. Finishing schools in Polytechnics

(Outlay: ₹50.00 lakh)

Government has established finishing schools in all the 45 Govt. polytechnics in the state. The finishing school aims to provide skills both in technical and soft skills to students to facilitate their employability and play a part in the supply side issues of the industry. The amount provided is for tofacilitate all the Polytechnic Colleges with uniform finishing school class room, language labs and establishing thecareer guidance and placement cells.The amount also includes induction programme for the first year students. An amount of ₹50.00 lakh is provided for finishing schools in Polytechnics of the state during 2018-19.

25. Strengthening and Development of Physical Education in Engineering Colleges and Polytechnics

(Outlay: ₹200.00 lakh)

Most of the engineering colleges and polytechnics 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 provided is for construction of stadia complexes, indoor stadia, courts, swimming pools and modern fitness centers. Amount provided can also be utilized for the construction works, purchase of equipment and consumables for sports and games and participating state/ national level sports events. The scheme includes extending the facilities to Technical High School and Fine arts colleges. An amount of ₹200.00lakh is provided for the scheme in 2018-19.

26. ICT in Engineering Colleges and Polytechnics

(Outlay ₹350 .00 lakh)

ICT has the potential to contribute greatly to the practice of engineering education. All class rooms in Government Engineering Colleges and Polytechnics have been already converted in to smart class rooms. Amount provided is for digital class rooms, digital faculty rooms, 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. An amount of ₹350.00lakh is provided for the scheme in 2018-19.

27. Providing Connectivity under National Mission on Education through Information Communication Technologies (NMEICT)

(Outlay: ₹150 .00lakh)

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. The Engineering Colleges and polytechnics in the state are also provided with the connectivity. An amount of ₹150.00lakh is provided for the sustenance of the scheme during 2018-19.

28. Technical Education Quality Improvement Programme (TEQIP)

(Outlay: ₹60.00 lakh)

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 for the subcomponent of strengthening institutions to improve learning outcomes and employability of graduates (subcomponent1.1).

TEQIP- II which commenced in 2010-11 is being implemented through the MHRD, Govt. of India as a centrally sponsored. Under this scheme, 19 institutes in the State were covered.

Under TEQIP- III, 250 institutes will be competitively y 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. An amount of ₹60.00 lakh is provided for functioning of SPFU as State share during 2018-19 for monitoring the scheme.

29. Transportation Engineering Research Centre (TRC)

(Outlay: ₹ 100.00 lakh)

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, equipments 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 for sustainable infrastructure development and to

develop a comprehensive methodology to identift the hot spots along the network, (6) develop a data base to support the development of codes, gidelines, standards and manual fo sustainable infrastructure development, (7) suggest traffic management measures and practices, (8) promotion of regional level consultancies, (9) to equip the facility 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

Amount provided is for the continuation of research programs including construction in field, consumables, travel and contingency expenses, equipments for research, engaging manpower to field verification and computation and for conducting courses, workshops/conferences, training to faculty/students etc. An amount of ₹100.00lakh is provided for the scheme during 2018-19.

30. Evolving Libraries as Knowledge Centres (Strengthening the libraries in Engineering Colleges and Polytechnics Colleges)

(Outlay: ₹350.00 lakh)

The scheme aims to automize and digitizes the libraries in all engineering colleges and polytechnics. The scheme will make a drastic change in the library management system and will revolutionize the library system to an international standard. The amount provided is for following programme

1. Digitalization of library books in all the institutions.
2. Making available online journals in all areas
3. Library Information Management System (LIMS) software
4. Online referencing of international journals like IEEE, ACM etc.
5. Online lending and updating of records.
6. Digital enquiry of books remotely.
7. Purchase of books in new titles, hard copy journals, e-journals, furniture for library
8. Purchase of duplicating machines/scanners/printers/computers/Photostat which are required for the automation and digitization.

Extension of the scheme to Fine Arts College and technical high school is also included. An amount of ₹350.00 lakh is provided for the scheme during 2018-19.

31. Educational resource Centres in all Engineering Colleges

(Outlay: ₹160 .00 lakh)

As part of the ICT initiatives all the class rooms in the Govt. EngineeringColleges were converted as smart class rooms by providing LCD projectors, laptop computers and internet connectivity. The amount provided is for establishment of fully featured digital media studio, electrification, e-journal, public addressing system, providing server and LAN to host e-resource related to career guidance and soft skill training, procurement of engineering content learning software and development of online learning system. Three knowledge Centres are also proposed. An amount of ₹160.00 lakh is provided   for the scheme during 2018-19.

32. Research scholarship in all Engineering Colleges

(Outlay: ₹ 100 .00 lakh)

It is proposed to continue to award research scholarships to selected M. Tech and Ph.D students in engineering colleges for their excellence in research work. It is also proposed to

award scholarship to M.Tech students who do not have GATE scholarship. The selection of the students will be done by a selection committee for this purpose. The programme would aim in the enhancement of research ambience. An amount of ₹100.00lakh is provided for the scheme during 2018-19.

33. Faculty and staff development training centres

(Outlay: ₹120 .00 lakh)

The departments have started setting up of Staff Development Centres in CET, Thiruvananthapuram and Govt.College of Engineering Trissur to impart training to the faculty in the corresponding fields of expertise to update their knowledge. Awareness on service rules, office proceedings and personality development are also to be imparted through the programme. It is also proposed to continue the training programmes through CET, Thiruvananthapuram, GEC and Govt. Engineering College, Kannur during the year 2018-19. The facilities also extended to Polytechnic Colleges and Fine arts colleges. An amount of ₹120.00 lakh is provided for the scheme during 2018-19.

34. Scholar support programme

(Outlay: ₹50 .00 lakh)

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 now implemented in all 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. An amount of ₹50.00 lakh is provided for the scheme during 2018-19.

35. QIP centres in engineering colleges

(Outlay: ₹450.00 lakh)

Quality improvement centres are functioning in College of Engineering, Thiruvananthapuram and Govt: Engineering College Thrissur in which the faculty in Engineering Colleges has the opportunity to undergo PhD programmes. In CET, QIP programmes are sanctioned for four branches with opportunity for PhD programmes at the rate of 2 faculties per branch. In the Govt: Engineering College Thrissur, QIP programmes are sanctioned for 3 branches with opportunity for PhD programme for 2 faculty per branch and three branches of engineering in RIT Kottayam with intake of two faculty per branch. Modernization of laboratory facilities, workshops, library facilities, accommodation facilities for QIP research scholars etc are proposed to be carried out. An amount of ₹450.00lakh is provided for the scheme during 2018-19.

36. Additional Skill Development Programme in all Government Engineering Colleges

(Outlay: ₹50.00 lakh)

The programme has been started in 2012-13, by organizing various short-term skill development programmes for unemployed financially backward youths belonging to all communities. It has been started only in few engineering colleges. During 2014-15, the scheme was extended to all engineering colleges, polytechnics and some selected technical schools. It is also proposed to conduct secondary students outreach programme (SSOPE) through engineering colleges. It is also proposed to start skill development centres in all government engineering colleges and skill training programmes are also designed. The students are provided with monthly stipend, tool kit etc. and awarded with certificate of

competency on successful completion. Amount provided is for providing honorarium to the faculty, cost of deliverables and stipend to the participants. An amount of ₹50.00   lakh is provided in the year 2018-19.

37. IIT in Kerala

(Outlay: ₹1.00 lakh)

The establishment of an IIT, Palakkad has been fulfilled vide GO (MS) No. 229/2015/H.Edn dated 3/6/2015. The IIT is expected to overcome the qualitative and quantitative laggardness in the state with respect to technical education and research. This overall development will be possible only through research and strong linkages with industries which is likely to happen with the inception of the new IIT.   An amount of ₹1.00 lakh is provided as a token provision for the implementation of the scheme during 2018-19.

38. National Vocational Education Qualification Framework (NVEQF) in Technical High   Schools and Polytechnics

(Outlay: ₹400.00 lakh)

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.

Implementation of NVEQF would require financial assistance for infrastructure as well as remuneration for the industrial participation and for expert lectures from skill imparting professions. The teaching staff also has to be imparted adequate training in pedagogy, student psychology, communication skills and motivation to provide better academic environment in the Technical High Schools. The amount provided for resource preparation, arranging faculty development programmes, purchasing machinery, equipment and books, curriculum formation workshop, academic monitoring, performance of review workshop, state level/ national level seminars/workshops/conferences/ industrial visit. An amount of ₹400.00lakh is provided for the implementation of NVEQF in Technical High Schools and Polytechnics during 2018-19.

39.   Schemes coming under PPP mode

(Outlay: ₹100.00 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. These programmes started during the previous years are proposed for continuing during 2018-19. For these four programmes amount will be provided in a single head from which the same can be utilized. An amount of ₹100.00 lakh is provided for these schemes in 2018-19.

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 collaborationwith Mercedezs Benz Pvt. Limited, Pune. An MOU has been signed between Government Engineering College Barton Hill and M/s Mercedes Benz India Pvt.Limited, Pune. The first batch of the course with an intake of 20 students was

d) 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 implementation of seven components- (1) TPLC-M.Tech in Translational Engineering (2) TPLC- Student/professional focus, (3) TPLC-Distinguished Visiting Scholar Program (4) TPLC -Connect for socially relevant projects, (5) TPLC- Incote (International conference on Translational Engineering (6) TPLC- manpower and (7) 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.

40. Production and Training (PAT) Centre in Polytechnic Colleges

(Outlay: ₹50 .00 lakh)

Practical training and industrial exposure is an essential component of technical education. The lack of major industries of production is a setback for industrial exposure of students. To overcome this challenge the establishment of a Production and Training Centre associated with the institution is envisaged. A Production and Training Centre in the campus of the Women's Polytechnic College, Kozhikode has been started during 2014-15. Similar centres are proposed at IPT & GPTC Shoranur and GPTC, Adoor. An amount of ₹50 .00lakh is provided for the scheme during 2018-19.

41. Technology Business Incubation Centres in Polytechnics and Engineering Colleges

(Outlay: ₹100.00 lakh)

As part of building confidence to the newly passing out engineering degree diploma students for starting new entrepreneurship it is proposed to set up software incubation centres in technical institutions such as engineering colleges and polytechnics. The experience in these centres enables the students to take up the challenges of new entrepreneurship activities after the successful completion of course. Focusing on this target, it is proposed to start software incubation centres with high speed internet connectivity and enough computer system assembled in separate floor space. Amount is provided for creation of additional cubicles, training and awareness programmes, biometric access control and security cameras, additional furniture and computers etc. An amount of ₹100.00 lakhis provided for the scheme during 2018-19.

42. Computer Application Eligibility Test

(Outlay: ₹1.00 lakh)

Government of Kerala is in the process of implementation of e-governance in all the government institutions and offices. Knowledge of computers is becoming a pre requisite for many Government jobs in Kerala. It is necessary that a certification/eligibility examination based on an appropriate syllabus in computer applications, office packages etc. which test the proficiency of the candidate in computer awareness is needed. In 2014-15 the Computer Application Eligibility Test (CAET) scheme, to examine basic computer skills needed for an applicant to apply for such posts conducted by PSC or PSUs has been started. It has

mandatory for those who enter government service especially for the post of clerk/ assistant grade or other categories who have basic knowledge and capability in computer application and office package. An amount of ₹1.00 lakh is provided as a token provision for the implementation of the scheme during 2018-19.

43. Centre of Bamboo Technology at Government Engineering College, Barton Hill

(Outlay: ₹15.00 lakh)

It is proposed to establish a Centre for Bamboo Technology 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 annual conference on bamboo technology. The know-how can be generated in collaboration with Bamboo Society of India, India Centre of Excellence on Bamboo Technology and other institutions in this area. The amount provided for the functioning of the Centre for the year 2018-19 is ₹15.00lakh.

44. Material Testing and Certification Centre in Polytechnic Colleges

(Outlay: ₹20.00 lakh)

This scheme consists in establishing material testing and certification Centres in Government Polytechnic colleges where the civil engineering branch are existing. The materials used for building construction are to be tested and certified by authorized certification centers 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 a total of testing Centres proposed to be established in 5 nodal polytechnics in Kozhikkode, Palakkad, Thrissur, Kalamassery and Thiruvananthapuram. The Centre will 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 for accreditation, administrative and maintenance expenses is ₹20.00 lakh during 2018-19

45. Punarjjani

[Outlay: ₹100.00 lakh]

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. The major activities included are organising expenses, purchase of raw materials, documentation etc. and the amount provided for the year 2018-19 is ₹100.00 lakh.

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

(Outlay: ₹1.00lakh)

The components of the scheme are upgradation of polytechnics, construction of women's hostel in polytechnics, community development through polytechnics and community college scheme in polytechnics. Provision has been given under RUSA for the activities for the development of polytechnics. However, for the completion of the already started works an amount of ₹1.00 lakh is provided as state share for the year 2018-19.

47. Accreditation of Govt. Polytechnic Colleges in the State

(Outlay: ₹400 .00lakh)

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.

Govt. of Kerala is taking much interest in Diploma Education. The Polytechnics which are functioning of a long time had acquired necessary and sufficient infrastructure and maintaining good academic standard. The institutions are to be elevated to the level of national and international regulation and thereby the extension. NBA Accreditation is essential in all respects. Amount is provided for preparatory works for accreditation and overcoming of identified short comings, Documentation and training to Faculty etc. The outlay provided is ₹400.00lakh in the year 2018-19.

48. Centre For Product Design And Development At Cet

(Outlay: ₹15 .00lakh)

It is proposed to set up a Product design and Development at Centre at College of Engineering Trivandrum 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 and unemployed youth through specialized programs. The Centre shall utilize the Fab lab facility to be supplied to CET by Startup Mission Kerala. An amount of ₹15.00 lakh is provided for Design Studio, Electronics Testing Facility and work bench,Mechanical fabrication and prototyping facility, PCB Fabrication facility, Documentation and Visualization during the Budget 2018-19.

49. Re-Usable Building Systems To Ensure Sustainability Of Expanding Urban Infrastructure

(Outlay: ₹20.00lakh)

The re-usable building systems to ensure sustainability of expanding urban infrastructure would identify various research segments. It would culminate in a module of action in the respective area by either expanding existing system of practices or revamping the redundancies in the operations being followed. The scheme would strive to provide leadership in the area of sustainability, particularly in built environment, and infrastructure development by appropriate incorporation of advances in engineering, technology and management. An amount of ₹20.00 lakh is provided for purchase of equipment and machinery, fabrication, Labour, Materials Fabrication and erection for model unit, manpower and travel during 2018-19.

50. Rural Technology Development Centre

(Outlay: ₹25 .00lakh)

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 can act 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 solutions can be transferred to the communities and feedback can be taken for checking the effectiveness. The existence of such a Centre will enable consistent improvisation through constructive feedback and will help evolve best possible solution through the work of faculty and students. In short the establishment of RTDC will pave a new era of technology transfer from higher education to the community around. An amount of ₹25.00 lakh is provided for purchase of equipment and other expenses for the functioning of the Centre for 2018-19.

51. Launching A Student Satellite: Cet Satellite

(Outlay : ₹60 .00lakh)

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. An amount of ₹ 60.00 lakh is provided for the Budget 2018-19 for the implementation of the scheme

52. E-Yantra Project To Be Implemented In Polytechnic Colleges

(Outlay: ₹50 .00lakh)

The scheme e-Yantra is an initiative to spread education in embedded systems and Robotics of IIT Bombay sponsored by Ministry of Human Resource Development through the National Mission on Education through ICT (NMEICT). The objective is to provide hands-on learning to engineering students who have limited access to labs and mentors. The goal is to create the next generation of (Embedded systems) engineers in India with a practical outlook to take on challenging problems and provide solutions. An amount of ₹50.00 lakh is provided for infrastructure creation, workshop, training robotics club, e-Yantra robotics competition (eYRC), setting of Robotic Lab, conducting project expo, etc during 2018 -19.

New Schemes
53. Development of Engineering Colleges

(Outlay: ₹1800 .00lakh)

The plan scheme for development of engineering colleges was under different heads and separate heads were maintained for each engineering college. Hence for administrative convenience, an amalgamation of the revenue portions under the scheme is proposed. The amount is provided for lab and library facilities, hostel facilities, infrastructural facilities for starting/continuance of new courses, basic workshop, community auditorium, campus development, sewage treatment plant, drinking water facilities, student amenity centre, euipments, fellowships, national/international conferences etc. Out of the total amount provided for the scheme, an amount of ₹100.00lakh is set apart for establishing a Centre of Excellence in Systems, Energy and Environment at GEC, Kannur. An amount of ₹1800.00lakh is provided for the scheme, 'Development of Engineering Colleges' for 2018-19.

54. Academic Staff College & IQA Centre

(Outlay: ₹100 .00 lakh)

This scheme intends to provide training in modern methods of teaching to the teachers and teachers and students will be exposed to the innovative teaching-learning process. The academic staff college is required to organize trainings in synchronization with the Internal Quality Assurance Cell, with the objective of quality enhancement of the institution. An amount of ₹100.00 lakh is provided for the implementation of the scheme.

55. Interdisciplinary Research Centres at Govt. Engineering Colleges

(Outlay: ₹100 .00 lakh)

The Directorate of Technical Education proposes to establish interdisciplinary research centers 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. An amount of ₹100.00 lakh is provided for the implementation of the scheme during 2018-19.

56. Accreditation of Engineering Colleges

(Outlay: ₹200 .00 lakh)

Our colleges are with good atmosphere for Education. If these colleges are given opportunity to get accredited, the students and faculty acquired self esteem as well arose 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 the preparatory works for getting accreditation of NAAC. An amount of ₹ 200.00 lakh is provided for the implementation of the scheme during 2018-19.

9.4 SPORTS AND YOUTH AFFAIRS

The outlay provided for the sector"Sports and Youth Affairs" in the Budget 2018-19 is ₹140.11 crore. Department wise outlay provided during 2018-19 is given in the following table.

Sl. No	Name of scheme	Amount (₹in lakhs)
1	Annuity Scheme on 35th National Games	1.00
2	Directorate of Sports and Youth Affairs	6999.00
3	Kerala State Sports Council	4210.00
4	Kerala State Youth Welfare Board	2300.00
5	Physical Education College	120.00
6	Assistance to Directorate of Public Instruction	106.00

DEPARTMENT OF TECHNICAL EDUCATION
BUDGET ESTIMATE 2018-19
A. CONTINUING SCHEMES (STATE PLAN)

Sl No	Name of Scheme	Head of Account	BUDGET 2018-19 Rs. in Lakhs		
			Revenue 2204	Capital PWD	Total
1	2	3	4	5	6
1	Directorate of Technical Education, RDTE Offices & Examination Wing	2203-00-001-97	100	100	200
2	Development of Engg. College, Thiruvananthapuram	4202-02-105-99		300	300
3	Development of Engg. College, Thrissur	4202-02-105-93		300	300
4	Technical High Schools	2203-00-103-99	500	700	1200
5	Development of other Engineering Colleges	2203-00-112-54	500	500	1000
6	RIT, Kottayam	4202-02-105-89		300	300
7	Engineering College, Kannur	4202-02-105-92		300	300
8	College of Fine Arts	2205-00-101-94	290	200	490
9	Placement and Training	2203-00-003-96	75		75
10	Faculty Development in Engineering College	2203-00-003-99	800		800
11	Staff Development of DTE	2203-00-001-96	30		30
12	Industry Institute Interaction Cell (IIIC)	2203-00-003-93	150		150
13	Development of Human Resources (SITTTR)	2203-00-105-89	130	70	200
14	Finishing Schools in Polytechnics	2203-00-105-87	50		50
15	Strengthening and Development of Physical Education	2203-00-104-90	100	100	200
16	ICT in Engineering Colleges and Polytechnics	2203-00-112-70	350		350
17	Education Recourse Centres in all Engineering Colleges	2203-00-112-66	160		160
18	Transportation Engineering and Research Centre	2203-00-112-67	100		100
19	Research Scholarship in all Engineering Colleges	2203-00-004-96	100		100
20	Evolving Libraries as Knowledge Centres (Strengthening the Libraries in Engineering Colleges and Polytechnics)	2203-00-001-95	350		350
21	Faculty and Staff Development Training Centre	2203-00-003-92	120		120
22	Scholar Support Programme	2203-00-112-64	50		50
23	QIP Centres in Engineering Colleges	2203-00-112-65	450		450

24	Additional Skill Acquisition Programme (ASAP)	2203-00-003-91	50		50
25	IIT in Kerala	2203-00-112-62	1		1
26	Trivandrum Engineering Science and Technology (TrEST) Research Park	2203-00-112-57	100		100
27	National Vocational Educational Qualification Frame work in Technical High Schools and Polytechnics (NVEQF)	2203-00-103-91	400		400
28	Schemes Coming under PPP mode	2203-00-112-56	100		100
29	Establishment of Production And Training (PAT) Centre in Polytechnic Colleges	2203-00-105-81	50		50
30	Technology Business Incubation Centres in Polytechnics and Engineering Colleges	2203-00-112-53	100		100
31	Introduction of Computer Application Eligibility Test	2203-00-112-52	1		1
32	Development of all Government Polytechnics	2203-00-105-79	1500	1900	3400
33	Centre for Bamboo Technology	2203-00-112-49	15		15
34	Material Testing and Certification centre in Polytechnic Colleges	2203-00-105-77	20		20
35	Punarjjani	2203-00-001-94	100		100
36	Accreditation of Govt. Polytechnic Colleges	2203-00-105-75	400		400
37	Product Design & Development Centre in CET	2203-00-112-47	15		15
38	Re-Usable building system in RIT, Kottayam	2203-00-112-46	20		20
39	Rural Technology Development Centre	2203-00-004-95	25		25
40	Student Satellite Launch Programme at CET	2203-00-112-45	60		60
41	Robotics Lab (E-Yantra)	2203-00-112-44	50		50
42	Development of Engineering Colleges	2203-00-112-41	1800		1800
	TOTAL (A)		**9212**	**4770**	**13982**

B. NEW SCHEMES (STATE PLAN)

Sl No	Name of Scheme	Head of Account	BUDGET 2018-19 Rs. in Lakhs		
			Revenue 2204	Capital PWD	Total
1	2	3	4	5	6
1	Academic Staff College & IQA Centre	2203-00-003-90	100		100
2	Interdisciplinary Research Centres at Govt. Engineering Colleges	2203-00-004-94	100		100
3	Accreditation of Engineering Colleges	2203-00-112-40	200		200
	TOTAL (B)		**400**		**400**

C. CENTRALLY SPONSORED SCHEMES

Sl No	Name of Scheme	Head of Account	BUDGET 2018-19 Rs. in Lakhs		
			Revenue 2204	Capital PWD	Total
1	2	3	4	5	6
1	Merit Cum Means Scholarship (MCMS)	2203-00-107-92	20		20
2	Upgradation of existing/ Setting up of new Polytechnics Construction of Women's Hostel in Polytechnics under the scheme of sub - mission on Polytechnics by MHRD Community Development through Polytechnics (CDTP)	2203 - 00-105-76 (50% CSS)	1	1	2
3	Technical Education Quality Improvement Programme (TEQIP phase II)(50% CSS)	2203-00-112-**42** (50)	60		60
4	Connectivity for National Mission on Education throgh Information CommunicationTechnologies NMEICT (50% CSS)	2203-00-112-**43** (48)	150		150
	TOTAL (C)		**231**	**1**	**232**
	GRAND TOTAL(A+B+C)		**9843**	**4771**	**14614**

DIRECTORATE OF TECHNICAL EDUCATION
BUDGET PROVISION 2018-2019 (PLAN)

(Rs.in Lakhs)

SL. No.	Plan 2018-19 / Head of account	"17" MW	"19" M&E	"24" M&S	"34 OC[3]" OI	TOTAL
	2203-00-112-41 Development of Engineering Colleges (Rs. 1800 L)					
1	College of Engineering, Trivandrum	50	100	25	250	425
	GEC, Thrissur	50	100	25	250	425
	RIT, Kottayam	50	100	25	250	425
	GCE, Kannur	50	100	25	250	425
	Centre of Excellence in Energy & Environment - GCE, Kannur				100	100
	2203-00-112-70 ICT (Rs. 350 L)					
2	Engineering Colleges (9x12)					108
	Polytechnic Colleges (45x5)					225
	College of Fine Arts (3x3)					9
	2203-00-001-95 Strengthening the Libraries in ECs and Polytechnics (Rs. 350 L)					
3	Engineering Colleges (9x8)					72
	Polytechnic Colleges (45x5)					225
	College of Fine Arts (3x4)					12
	Technical High Schools (39x1)					39
	2205-00-101-94 CFA (Rs. 290 L)					
4	CFA, Thiruvananthapuram	26.1	26.1	15.5	29	96.7
	CFA, Mavelikkara	26.1	26.1	15.4	29	96.6
	CFA, Thrissur	26.1	26.1	15.5	29	96.7
	2203-00-105-87 Finishing School (Rs. 50 L)					
5	Polytechnic Colleges (45x1)					45
	Language Lab at one selected Polytechnic College					5
	2203-00-104-90 Strengthening & Development of Physical Edn. (Rs. 100 L)					
6	Engineering Colleges (9x1.5)					13.5
	Polytechnic Colleges (45x1)					45
	College of Fine Arts (3x1)					3
	Technical High Schools (39x1)					39

7	**2203-00-112-66 ERC (Rs. 160 L)**					
	Engineering Colleges (9x20)					180
8	**2203-00-003-92 FSDTC (Rs. 120 L)**					
	CET					30
	GEC, Thrissur					30
	GCE, Kannur					30
	DTE - Training Officer					30
9	**2203-00-112-64 SSP (Rs. 50 L)**					
	Engineering Colleges (9x1)					9
	Polytechnic Colleges (45x0.5)					22.5
	Technical High Schools (39x0.5)					19.5
10	**2203-00-112-65 QIP centres (Rs. 450 L)**					
	CET					150
	GEC, Thrissur					150
	RIT, Kottayam					150
11	**2203-00-003-91 ASAP (Rs. 50 L)**					
	Engineering Colleges (9x5)					45
12	**2203-00-112-56 PPP Mode (Rs. 100 L)**					
	TPLC - BH					60
	Bosch - CET					30
	ADAM - BH					5
	Bosch - Kalamassery					5
13	**2203-00-105-81 PAT (Rs. 50 L)**					
	WPTC, Kozhikode					5
	GPTC, Perumbavoor					10
	GPTC, Adoor					20
	IPT & GPTC, Shoranur					15
	2203-00-105-81 TBI (Rs. 100 L)					
	CET					10
	GEC, Thrissur					10
	RIT, Kottayam					7.5
	GCE, Kannur					7.5
	GEC, Bartonhill					7.5

14	GEC, Palakkad					7.5
	GEC, Kozhikode					7.5
	GEC, Wayanad					7.5
	GPTC, Kaduthuruthy					7.5
	GPTC, Kalamassery					7.5
	WPTC, Thrissur					7.5
	SRGPTC, Thriprayar					7.5
	SD Centre, Kalamassery					5
15	**2203-00-112-54 Other Engg. Colleges (Rs. 500 L)**					
	GEC, Bartonhill	20	26	12	45	103
	GEC, Idukki	20	26	12	45	103
	GEC, Palakkad	20	26	12	45	103
	GEC, Kozhikode	20	26	12	45	103
	GEC, Wayanad	20	26	12	45	103
	Total	**378.3**	**608.3**	**206.4**	**1412**	**4541.5**