

# **REPORT OF THE ACADEMIC, ADMINISTRATIVE AND FINANCIAL AUDIT COMMITTEE**



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**Submitted to the  
Honourable Chancellor, Professor K.C.REDDY  
RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES  
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## PREFACE

Rajiv Gandhi University of Knowledge Technologies (RGUKT) is a unique University established in Andhra Pradesh by Act No.18 of 2008 of the Andhra Pradesh Legislature. A University recognized under 12(B) of the UGC Act, this University provides integrated technical education for a large segment of rural meritorious students based on their merit in the 10<sup>th</sup> Class examinations without their having to go through any entrance test. The eligibility for admission to the first year of the integrated course is 'Pass' in X class and admissions are made on merit basis. Students who study in the schools located in rural areas of the State are given deprivation weightage. This is magnificent vision meant to transform the lives of the rural youth by the unique economic redemptive force called education at no cost. The campuses are fully residential for the students. The pedagogy at the University emphasizes self-learning by the students where a large part of the learning takes place ideally by promoting in the student the broad skills of Learning to Learn, Learning to Think, and Learning to Live achieved through hand-holding provided by the application of learning sciences and by suitably trained faculty members.

Right now RGUKT functions with headquarters at Idupulapya, Kadapa district with constituent Institutes at Nuzvid, Srikakulam and Ongole. The Courses offered at all the Institutes except the newly established one at Ongole have received approval from the AICTE. Courses were started in the academic year 2008-09 at the RK Valley and Nuzvid Institutes. Each of the Institutes has been given independent status and placed under the supervision of the Directors concerned, with overall direction from the Vice-Chancellor of the University and under the guidance of the Chancellor who will be chosen from among eminent academicians and appointed by the Government of Andhra Pradesh. The objectives of the University, according to the Act, are as follows:

1. To disseminate and advance knowledge in the fields of Information Technology, Nano Technology, Solar Energy Technology, Biotechnology and other emerging technologies;
2. To create institutes and/or centres of excellence for imparting state-of-the-art education, training and research in the fields of Information

Technology, Nano - Technology, Solar Energy Technology, Biotechnology and other emerging areas;

3. To develop innovative patterns of teaching, training, curriculum design and methods of testing various levels of educational accomplishment to attain global education standards;
4. To make special provisions for integrated courses in humanities, social sciences and interdisciplinary areas so as to promote use of technologies for larger benefit of mankind particularly people living in developing countries;
5. To function as a resource centre for knowledge management and entrepreneurship development in the fields of Information Technology, Nano Technology, Solar Energy Technology, Biotechnology and other emerging areas;
6. To provide for inter-relationships for national and global participation in the fields of Information Technology Nano Technology, Solar Energy Technology, Biotechnology and other emerging areas and its allied fields; and
7. To establish close linkage with industry to make teaching, and research at the institute relevant to the needs of the economy, at national and global level.

The objectives indicate that the University is expected to disseminate and advance knowledge, and also create institutes/centres of excellence in the fields of Information Technology, Nano Technology, Solar Energy Technology, Biotechnology, and other emerging areas.

The University functions with the Governing Council and an Academic Council at the University level headed by Chancellor. The Executive Committees are constituted by the Chancellor and Boards of Studies is common for all the Institutes and constituted by the Vice-Chancellor. The Vice-Chancellor is the Chairperson of the Executive Committees. The Chancellor is the Head of the University.

## **THE NEED FOR ACADEMIC, ADMINISTRATIVE AND FINANCIAL AUDIT**

Educational institutions should always put in efforts to improve the quality of teaching and learning and also explore ways of striving for self-sufficiency. The UGC, the AICTE and the NAAC have been advocating the need for all higher educational institutions passing through a process of review of the quality assurance mechanisms launched by them so that the striving for excellence is continuous and well-directed. Quality pervades every aspect of a higher educational institution's activities, academic, administrative and financial. It is in this context that an academic, financial and administrative audit takes place at periodical intervals. Academic audit can be understood as a scientific and systematic method of reviewing the quality of the academic processes launched by the institution. The purpose of an academic audit is to encourage departments to evaluate their education quality processes – the key faculty activities required to produce, assure, and regularly improve the quality of teaching and learning. An audit asks how faculty approach educational decision-making and how they organize their work, using the resources available to them. It also emphasizes working collegially to provide quality education in tune with the latest advances envisaged in the higher educational scene in the country. Administrative audit is a process of evaluating the efficiency and effectiveness of the administrative procedure, which includes assessment of policies, strategies and functions of the various administrative wings and functionaries and management of the overall administrative system. Financial audit is concerned with the efficacy of design/methodology/approach to financial transactions, the speed in the delivery of services, and the degree of compliance with the guidelines so as to ensure streamlined functioning. Also, In the process of this exercise, an assessment of strengths and weaknesses of the teachers, departments, and administrative units will be taken up. The objective is quality sustenance and prioritizing continuous improvement. This assessment will lead to a SWOC analysis and identify the bottlenecks in the existing mechanism and draw attention to opportunities for academic and administrative reforms which will result in quality Improvement.

It is in this context that the Chancellor, Prof.K.C.Reddy constituted a Committee (vide Proceedings of the Chancellor dated 27.01.2020) to conduct the academic and financial audit of the University. The Committee consists Prof.V.Balamohandas, Former Vice-Chancellor, Acharya Ngarjuna University as Chairman; Prof.C.R.Visweswara Rao, Former Vice-Chancellor, Vikrama Simhapuri University; and Prof.K.T.Ramkrishna Reddy, Professor of Physics, S.V.University as Members, and Prof.D.Harinarayana, Dean, Academic and Examinations, Rajiv Gandhi University of Knowledge Technologies as the Convener. The Committee visited RGUKT Nuzvid Campus twice – the first visit was during February 15-16, 2020 and another visit was made during March 6-8, 2020. The Committee held discussions with all officers, heads of departments, faculty and select students. The Team visited all the academic departments and infrastructure facilities of RGUKT, Nuzvid.

The Committee completed its meetings and interactions with the faculty, students, and supporting staff of RGUKT, RK Valley, Idupulapaya during March 13-17, 2020 and RGUKT, Ongole on 18<sup>th</sup> March 2020. The unit to RGUKT, Srikakulam was scheduled for 13<sup>th</sup> April 2020. But due to the lockdown imposed due to Covid-19 and the consequent caution about mobility, the Committee could not interact personally with the faculty and students of Srikakulam. The Director (I/C) of the Srikakulam Institute was asked to submit a Status Report on the Campus. The Committee's Report on academic, administrative and financial audit cannot be further delayed and hence the Committee decided to base its assessment of RGUKT, Srikakulam on the Status Report submitted by the Director (I/C).

### **Academic, Administrative, and Financial Audit Committee Broad Findings**

The broad findings at each constituent unit level and at the level of the University as a whole with its overall objective of having to infuse a common culture are detailed below:

- (a) Lack of a vision plan and a striving for its implementation
- (b) Lack of performance orientation
- (c) Faculty recruitment delays and lack of competent and motivated faculty
- (d) Contract appointments and lack of institutional commitment
- (e) Overall lack of research culture
- (f) Absence of accountability

- (g) Lack of inter-institutional and intra-institutional common governance/ financial management norms
- (h) Overall lack of the pursuit of quality and excellence at the institutional level and as an overall perspective
- (i) Absence of periodic performance audit
- (j) Tinkering with pedagogy and side-stepping of L/D

In the light of the above-mentioned deficiencies to be addressed, RGUKT may pursue the following with a strategic perspective plan in execution:

- Strengthening of teaching by the adoption of appropriate pedagogical models and technologies
- Prioritizing the development of a strong research and innovation culture with national level collaborations
- Promoting the quest for innovation, entrepreneurship development, and skill training.
- Striving for improving institutional visibility
- Strengthening the MOU base by involving national level agencies / industries for procuring projects and internships, and for student and faculty exchange programmes.
- Build up a strong base in emerging technologies and develop curricular structures and innovative research programmes in them.

## **SUMMARY OF RECOMMENDATIONS**

The current focus is on liberal education and multidisciplinary skills because big data, artificial intelligence, and machine learning will take away from us several kinds of unskilled avenues of employment and in the light of this the National Education Policy-2020 places before us an interdisciplinary platform that helps students to integrate knowledge and apply it in current and future real world scenarios. In this context the focus of a Technological University should be on concepts creation, application, innovation, and experimentation in order that we as a nation may reap the demographic dividend and educate and empower our youth below the age of 25. In the construction of a knowledge society, higher educational institutions should be involved not only in generating knowledge but also in transferring it to the industry and to the society at large.

### **Focus on Emerging Technologies**

- Having established itself as a residential University which has introduced some important initiatives in the rapidly emerging field of learning sciences and has developed enviable infrastructure, RGUKT may now turn its attention to emerging technologies like Nanotechnology, Biotechnology, Solar Energy Technology, and other areas in tune with its Objectives. The University may introduce these subjects at appropriate levels by developing a state-of-the-art curriculum that highlights integration. In addition to training and research in these allied fields and sub-fields may be taken up to lead to the establishment of Centres of Excellence where special attention is paid to converging technologies. Robotics, Artificial Intelligence, virtual reality, augmented reality, RPA, IoT which are now taught as subjects may gradually enlarge into areas of study of redefining how enterprises, organizations function, innovate and enhance their services, products and experiences. In the process the University may create a common platform with the relevant industry.

### **The Faculty & Flexible Learning Initiatives**

- The faculty must be in the forefront of working out the transformation to meet the twenty-first Century challenges and in association with the industry they should focus on developing relevant Learning outcomes/ graduate attributes based curricular structures with well identified skill oriented curriculum packages that help translate educational gains into immediate



employment gains. The competency standards for skill development components must be duly assessed, and based on this the faculty may impart intensive training to the students in important areas of knowledge, application, creation, and innovation relevant to their disciplines. In the present scenario, we are witnessing rapid changes in the industry and various other sectors due to the infusion of technology. These rapid changes make today's competencies get outdated in no time and so the faculty must have the goal of Lifelong Learning before them and for their students.

- The faculty must be equipped to introduce modules of learn reoriented personalization. The digital interface has facilitated learner autonomy and provides several features of self-learning, online tutorials, and also active interface with the teacher. The utility of three concepts – self-learning, peer learning, and group learning supported by “learning by doing” which are all based on approaches to pedagogy that learning sciences have brought into mainstream learning should be brought home to the students by developing an appropriate interface with them.
- Utilizing digital resources for quality infusion in teaching, for networking with institutions, and for the University to utilize its smart classrooms for expert lectures from outside the portals of the Institutes may be taken up since it is one way of meeting faculty shortages and enhancing the quality of teaching.
- Online content development and delivery and online testing should be focused upon with a thrust on student-centric learning. Learning by doing, which is part of the institutional philosophy of pedagogy, does not seem to be actively practiced. Training the new faculty in this mode of online content presentation, pedagogy, and testing may be accorded priority.
- The Committee gained the impression during its interactions with the faculty and students that there is a lot more to be done in the matter of encouraging student creativity and self-learning. Student seminars / PPTs by the students in the form of assignments may be accommodated in the time-table to promote student-centric learning.

- The number of smart classrooms and OHPs in the classrooms seem to be less than the desired number in the Institutes. This situation may be remedied.
- A common system for remedial was found wanting. At present slow learners are identified on the basis of their performance in the internal assessment / mid-term tests, by which time part of the academic year would have progressed with a section of the students remaining passive and not participating in the classroom. Instead, the model of designing a comprehensive test at the commencement of the academic year for the identification of slow learners may be considered. Tutorials followed by frequent online tests and online evaluations may help the students achieve expected competencies in core skills.

### **Teacher's Diary, Faculty Recharge Programmes & Publications**

- As a preliminary to systematic adherence to academic schedules, regular preparation of a Teacher Diary may be encouraged among the faculty. This diary is to be posted on the intranet of the respective Institutes as a measure of transparent functioning. This may be a preparatory step towards programme accreditation to be taken up soon simultaneous with institutional accreditation. Focus may also be laid on the development and use of interactive tools and courses for participatory teaching and these activities may also be reflected in the Teacher Diary. The diary may give month-wise data on clock hour / period basis for each semester in terms of subjects / topics / units allotted to individual faculty and subjects / topics / units completed. A suitable proforma for this may be devised by the University reflecting conventional lectures delivered, ICT integration, seminars held, interactive tools developed and used, add-on courses taught, skill development components addressed in a semester / devised, innovative strategies developed, and student seminars held.
- The Committee felt that the self-motivational levels of the faculty were somewhat low and that was borne out in the interactions of the Committee with the faculty and the students. Faculty recharge programmes in areas of knowledge relevant to the new curricular innovations may be held from time

to time to keep the faculty up-to-date in the new domain areas of knowledge.

- The Committee is of the opinion that the faculty has not utilized the advantages that a technological university offers for undertaking research projects and publications by individual level collaborations, let alone inter and intra institutional collaborations. By way of encouraging the faculty to be proactive, it is suggested that publications by the faculty in UGC-CARE recognized non-paid journals carrying an Impact Factor of 10 or more may be rewarded with a cash incentive and/or the award of a certificate of merit at the Convocation.

### **Technology Enabled Learning**

Technology-enabled learning (TEL) tools have made learning personalized and adaptive in the present connected world. The RGUKT may encourage flexible learning initiatives by drawing upon the NPTEL, MOOCs, and other relevant platforms. The faculty may access the ICT initiatives of the MHRD, the UGC, the IUCs in the form of digital platforms for the broadening of the horizon of learning of the faculty and the students. Extra credits may be given to students for obtaining proficiency certification in identified areas of skill relevant to their fields and provision may be made to show these as Add-ons in the Degree certificates. A list of useful Add-ons / online courses for each course of study may be displayed on website for the benefit of the students.

- The Academic Bank of Credit module as proposed by NEP-2020 should be created so that when the students do freelancing among various options / disciplines at various authorized institutions or platforms, they can have all the credits earned by them securely stored at a central online storehouse and ready for retrieval.
- Creation of online learning environments is to be encouraged to pave the way for improved and shared learning, communication, and collaboration. The younger faculty must be trained in online content development, online pedagogy, online testing and evaluation, and in obtaining feedback on all these components for creating a continuous, uninterrupted teaching-

learning environment. The infrastructure necessary for this need to be created by the University.

- Under the Directorate, Centre for Education Technology and Learning Sciences, a research group may be created with the specific objective of uncovering new approaches to education and pedagogy by underscoring the power of technology to influence and enhance academia. Focus must be laid by this Directorate on the design and implementation of learning innovations and on providing and propagating customizable learning platforms of collaborative learning.

### **Industry Interaction, Entrepreneurship Development& Internships**

- The faculty may forge MOUs with identified industries with the object of co-creating programs as per specific requirements of the industry for facilitating student placements, providing long-term internship to them, and funding and mentoring startups. At the completion of one's optional coursework, there should also be a final 'Industry Team Project' where students are required to solve a real-world problem in industry. Industry sponsors should be identified to assign the Team Project.
- An action plan with defined milestones and deliverables should be evolved by all the four Institutes together with the help of the expertise of the industry i. To improve and redesign the curriculum periodically in tune with the requirements of the industries; ii. To help create skilled human resource for industry requirement at various levels; iii. To conduct Entrepreneurship Development Programmes (EDPs), and iv. To undertake R&D in the areas related to skill education and development, entrepreneurship, employability, and other allied areas.
- Internships are an important feature of engineering education and they help a student to strategically hone his skill sets. They offer opportunities for networking with the industry and for defining career paths. The Committee observed that preparation of the faculty at all the Institutes for forecasting need, opportunity, and skill requirement and sending the students for Internship at the E3 level based on an assessment of these requires a more

systematic approach and exploration of possible collaborations. Preparatory work on this should begin at least six months before the Internships season begins.

## **Development of a Research and Innovation Ecosystem**

- The NEP-2020 emphasizes the importance of a robust ecosystem of research and has proposed an exclusive 2 per cent of the GDP to be allocated for advanced research, research capability promotion, and for the creation of a research culture in a majority of the Universities which it says is essential for the economic, intellectual, societal, environmental, and technological health and progress of a nation.
- A Research Promotion Council may be set up at the University to motivate and guide faculty on the submission of goal-oriented proposals for projects funded by the Central / State Governments / other national and international funding agencies / industries / companies. The RPC may also oversee projects, their progress, quality, and adherence to timelines. It may authorize the organization of Workshops on thrust areas of knowledge for the preparation of the proposals in tune with HR and other infrastructure available at the Institutes for the benefit of the faculty. The RPC may also be entrusted with the responsibility of developing a consultancy cell and an action plan that covers the rationale, objectives, scope, cost estimates, implementation modalities, areas of expertise, and terms of reference for consulting services.
- Nurturing of Research and Innovation ecosystem and translation of deliverables to society and economy are an important function of the faculty in a Technological University. A Centre for Innovation and Incubation of Start-ups on gaming, VFX, COE, AI, and other identified fields for each branch of knowledge may be created for bolstering the development of product, process, and service and to lead towards the growth of tech entrepreneurship. This Centre may also provide training in patenting, raising of venture capital, and marketing of products and processes.

- The University with its emphasis on technological aspects of education may evolve towards the setting up of a Science & Technology Entrepreneurs' Park (STEP) and Technology Business Incubator (TBIs) by working in coordination with the industry or industries in the neighbourhood.
- High-end equipment purchased at high cost is available at the Institutes at Nuzvid and RK Valley but their asset value has not been translated into concrete research. This is an area where the Research Promotion Council may initiate steps to motivate the faculty to launch on research. Permitting eligible faculty to supervise research in collaboration with National Research Laboratories and Technological Universities and Institutes may create a research atmosphere in these laboratories. This should lead in the next five years to a system of "co-tuelles" that encourages wider teaching / research collaborations leading to jointly awarded degrees.
- Productive engagement with communities of scholars from national and international domains is an important feature of promoting quality. The services of retired / serving faculty from reputed institutions may be engaged for short durations for delivering lectures in important areas of knowledge and for meeting faculty shortages by a well designed scheme of appointment of Visiting Professors/ Adjunct Professors. Since research is an important component of teacher performance, the faculty may be encouraged to publish with the help of the visiting faculty who may guide them in the matter of paper presentations in seminars and on undertaking minor / major research projects in their subjects.

### **Central Placement Cell**

- A Central Placement Cell and Portal at each Institute working in unison with the discipline-wise Placement Cells at the Institute may be started to assess and meet the demand generated by the industry and other sectors of employment. This Placement Cell may organize short-term training in demand-driven areas of skills, provide training programmes for the students on interview, communication, and life skills, and develop a database on employers / Industries / organizations and their timelines relevant to the Institute's placements programme.

## **NAAC Accreditation**

- An IQAC may be started at each Institute, with a common agenda for all the Institutes to i. develop a system of quality assessment, monitoring, and enhancement of the academic and administrative performance of the University, ii. internalize quality culture at all levels in the Institutes, and iii. institutionalize best practices. The IQAC must also build an organized methodology of documentation. An annual review meeting of all the IQACs of the four Institutes may be held under the Chairmanship of the Vice-Chancellor for monitoring the progress of the Institutes and for conducting an internal performance audit. At the end of every year, the AQAR / IQAC External Peer Team Report for the year in the format prescribed by NAAC, should be uploaded on the Institutes' websites. The UGC's directive is that by 2022 all Universities must be accredited at least at the 2.5 level.

## **The Library**

- The Committee appreciates the space made available at the Nuzvid and RK Valley Institutes for reference and reading at their libraries. It is heartening to note that a large number of students visit these libraries every day. Access to high speed internet and to online subject journals and books may be provided at all the four libraries to help students and the faculty draw the maximum academic benefit.
- The University may obtain for its libraries UGC-approved plagiarism check software to which every PhD thesis produced / supervised and every paper published by the faculty is subjected before it is accepted as an approved publication by the University subject to such other guidelines as the UGC / AICTE may prescribe. Access may be provided in these libraries to the National Digital Library. The library is also an Information Services Centre and towards that end digital resources useful to the faculty and the students should be developed by the libraries of the four Institutes.

## **The Examination Section**

- The Examination Section of RK Valley came forward with the suggestion that Enterprise Resource Planning (ERP) software may be purchased for enhancing the quality of its functions / data storage and security, etc. A survey may be made of an appropriate software package through technology consultation to identify an integrated easy-to-customize applications platform to automate wide ranging functions including Accounting and Finance and Purchase and Procurement and related back office functions. The most up-to-date software may be permitted to be acquired.
- Since students will have the freedom to choose add-on and skill development courses from MOOCs and other platforms this software should provide for an Academic Bank of Credit to store data relating to the credits earned by the student at the university and outside the University. The Examination branch should adapt itself to the Learning Outcomes based approach and be in a position to test the student's progress through processes of continuous online assessment. The automation should include online evaluation methodologies to ensure greater objectivity, transparency, and error-free tabulation.
- The present examination wing should focus on question bank preparation and standardization of that bank for each branch of knowledge. The examination system should lead to the internal examinations and mid-term examinations being conducted outside the working hours as per a flexible time table previously announced giving the student sufficient time to take the examination at his pace and choice during a prescribed period of time.
- The University may adopt the Onscreen Evaluation System (OES) to improve efficiency, accuracy and transparency in the evaluation process and to reduce error and subjectivity. The answer booklets may be digitized and from the central server transmitted to the examiners online. An appropriate software may be used for screen time for the examiner, for evaluation, and for compilation. Functions like award sheet preparation and publication of results are also part of this automation process.



- An English Language Laboratory may be set up in all the Institutes and an appropriate state-of-the-art digital platform / software with user-friendly features designed to enhance teaching and learning efficiency may be identified. A blended methodology of language teaching with the human touch brought in by the faculty is expected to ensure live delivery of language concepts. Moreover, the English Language Laboratory provides students with a platform for practical training in the language. The laboratory may also install French and German language proficiency courseware for interested learners. The Language Laboratory is expected to be a self-learning tool as well, to be utilized by both students and faculty.

### **Laptops, Labs and Internships**

- The laptops supplied to the students are found to be insufficient in their RAM for higher applications and for certain advanced subjects at the E3 and E4 levels. Therefore it may be necessary to create laboratories for these subjects where students work during stated hours.
- Teaching labs are licensed with SAP, SPSS, SAS, iThink, Rational Rose, E-views, Microsoft CRM, AutoCAD, Cadian, Creo, Ansys, Siemens NXCam, Automation studio, MatLab, Keil, VM Ware, etc.

### **The Hostels**

- The hostels look somewhat crowded and the Committee felt the need for the construction of more number of hostels for both boys and girls so that per room occupancy is significantly lowered than the present level.
- As a result of congestion in the hostels there is pressure on maintenance and supplies. There are frequent calls for plumbing and electrical systems maintenance and for rectifying clogged drains, unplugged leakages. Sewage accumulation causing stench and resultant unhygienic conditions has been noticed in the surroundings of the hostels. One mode of bringing about greater accountability in the system is by the development of an app which may be the first start-up activity of the Institutes. This app-based solution must take note of the date and time of the complaint, nature of the complaint, time taken for addressing it, materials management for the

purpose, short supplies, and grievance redressal by a built in clock ticking away the time. This will make monitoring effective and contributes to improved work culture.

- The Committee is of the opinion that at each of the four Institutes there should be a Hostel Office with suitable staff appointed for the purpose to coordinate with Home Tutors, Resident Wardens and to oversee the general management of the hostels.
- Every hostel at each Institute may have a room earmarked for at least twenty computer cubicles with higher end systems where students from the E3 and E4 classes work on their projects / internships / assignments.

### **E-Governance**

- The University may take up the e-Governance Project and a) automate all the academic related operations b) establish a student-related master database which will be common for all the operations c) establish curriculum related databases d) establishing subject with course identity and title database. Similarly, establishing an Integrated Financial System which takes care of all financial operations of the University and interacts with other subsystems may also be developed.
- The academic delivery and everyday management of student data including marks, attendance, and dissemination of information is managed through Learning Management System. The LMS is also used for conducting online quizzes, sharing resources like lecture materials, solutions to exams and quizzes and also for displaying grades. The utility of this tool is may be examined.

### **Assets Registry**

- The Committee felt the need for such huge campuses as these for the two Institutes at Nuzvid and RK Valley the establishment of an Assets Registry to take care of their properties and facilities. This Register maintains the property details including the land and building details and the drawings to a) manage the civil and electrical and pipeline infrastructures; b) monitor the

additions and deletions of the property details; c) account for the annual maintenance of infrastructure including computers, AC, intranet, internet fixtures and other communication devices; d) record costly equipments and their maintenance; e) maintain and enumerate all movable assets.

## General

- Conduct of Science and Technology Exhibitions involving all the technological universities in the southern region may be planned during the next two years.
- There are two impressive Indoor Stadia coming up at RK Valley and Nuzvid. The civil construction is almost over and now is the time for focusing upon state-of-the-art infrastructure of international standards for them. These stadia should in the next few years provide for international tournaments to be held at these places. Hence, an exclusive Sports Hostel may also be planned. One of these two Institutes should arrange coaching camps along with the relevant fitness regimen in those areas where student accomplishments at the State / National level seem encouraging.
- The units in music, painting, dance, etc., may all be merged into a Department of Performing Arts and appropriate curricular frameworks may be developed for the Minor courses bearing in mind an essential curriculum for life skills.
- A Student Grievance Cell and Portal may be set at the Institutes for receiving complaints from the students and acting upon them within a given time frame. A suitable system may be developed for the purpose, taking the model supplied by the UGC into account for ensuring transparency. Appointment of an OMBUDSMAN at the University level as per the AICTE guidelines may be considered.
- The IT Infra team in the respective Institutes takes care of the software related issues of the laptops supplied to the students. Several complaints made to the team are not addressed within a reasonable time frame. A rationalization of the workload of the IT Infra team followed by a monitoring

mechanism that measures the turn out on a day-to-day basis may be evolved.

- Since the University has instituted a purchase policy through the Central Purchase Committee, it may register with the DSIR for exemption from customs duty and concessions in GST for the purchase of scientific equipment for research.
- The Institutes may seek funding for the institution of Endowment Lectures from the industries and other sources.
- It was brought to the notice of the Committee that stock registers have not been maintained in some wings of the Institutes and the administration. Stock registers in the prescribed format have to be got ready in six months and annual inter-departmental stock verification, which has not taken place anywhere so far including in the library, has to be taken up.
- The faculty have informed the Committee that those qualified among them and holding permanent positions in the University have not been given the benefit of Career Advancement Scheme promotions so far. This is a matter to be looked into and CAS promotion for eligible faculty based on the UGC Regulations may be taken up at the earliest.
- There should be an Institute-wise Alumni Association with an online portal which permits registrations and interaction between the alumni and the Institute and alumni and the students for projects and placements. Annual Alumni Meets at each Institute be held on a fixed day every year.
- The endeavour should be in the direction of addressing major challenges comprising providing state-of-the-art curriculum, enrichment of the quality of teaching, research, consultancy, and services, adoption of ICT for teaching-learning, employability of graduates, and preparing the next generation as responsible citizens and leaders.

- Since the campuses at Srikakulam and Ongole are also expected to be developed soon, a framework for eco-friendly and sustainable campus development may be designed for all the four Institute campuses.
- The NSS and the NCC have created a vast manpower to help foster social responsibility and community engagement. Appropriate plan of action for these may be evolved to help the Institutes reach out to the community. An Advisory Committee may be constituted at the University for all the Institutes to develop and implement a common agenda.

It is located in a total area of 100 acres and another 67 acres of land has been added recently. This newly acquired land provides an opportunity for further extension of infrastructure and expansion of RGUKT, Nuzvid. The Committee is happy to note that Bhumi Puja was performed by the Chancellor on 16<sup>th</sup> February 2020 for a 1 MW solar energy project with single access tracking which is in the first place an imaginative green initiative and is expected to result in the saving of power tariff charges to an extent of about Rs.60 lakhs per annum. RGUKT-Nuzvid is a self-contained township as it were, with 46 buildings in a plinth area of 1.25.635 sq.mts. Of these, there are six hostels, three for boys and three for girls, staff quarters, a Health Centre, Post Office, Bank and other facilities.

## **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

### **Observations**

- The Department has 30 faculty with 5 regular Assistant Professors, 2 Assistant Professors on 12 months contract, 11 Assistant Professor on 10 months contract, and 12 Guest Faculty. There are 2 supporting staff (1 Junior Assistant and 1 Office subordinate).
- The teachers are well qualified in advanced fields of computer science and engineering. They are handling subjects like Artificial Intelligence, Data Analytics, Cryptography & Information Security, Image Processing, Block Chain Technology, etc., apart from teaching subjects like IOT, Cloud Computing, Machine Learning, Programming with Java, etc.
- There are 1,362 students in total with 483 male and 879 female students, the highest number in any engineering branch.
- Student placements were a maximum of 80% during 2018-19 and 5 - 6 % of students have opted for higher studies.
- The faculty have 82 publications in total with 11 national and 71 international publications.

- The Department has no laboratories since laptops were supplied to the students. The laptops supplied are very old with outdated software.
- The department has no departmental library, collaborations / linkages with other institutes, research facilities / projects / consultancy.
- During interaction, the students appreciated the Central Library and requested for the latest software and for laptop up gradation to meet higher RAM requirements.

### **Recommendations**

- The existing laptops of students should be urgently loaded with updated software.
- Being a Computer Science & Engineering department, all the E3 and E4 students should be given new laptops with the latest software.
- 10 Faculty members who wish to stay in hostels along with students could be encouraged to live in the hostels and their services may be utilized for counseling and monitoring of students in hostels.
- As the department has 5 regular Asst. Professors, they may be encouraged to apply for research funding via DST – FIST programme and also for Major Research Projects.
- MOUs with reputed industries have to be vigorously pursued.

### **DEPARTMENT OF ELECTRONICS & COMMUNICATIONS ENGINEERING**

#### **Observations**

- The Department has well qualified faculty. There are 13 Asst. Professors and 9 Guest faculty and 8 Lab technicians, 1 Junior Asst. and 1 Office Subordinate.
- The department has the second largest registered student strength of 1195, with 511 boys and 684 girls.

- The department has the credit of having an S.S.Bhatnagar Awardee, an IIT Director and an industrialist on the Board of Studies to guide the faculty in devising the curricular structures, which is to be appreciated.
- The department has established 3 MOUs with other institutes / industries and filed a patent. The faculty have 18 publications to their credit.
- The department has 65% placement, some via alumni during the academic year, 2018-2019.
- The students in their interaction appreciated the quality of the teaching by the faculty and their support during laboratory hours.
- The faculty and students requested for licensed software upgrades for the laptops supplied.

### **Recommendations**

- All the laptops should be updated with latest software urgently.
- It may also be necessary to create special laboratories where students work on higher configuration laptops making use of high end softwares.
- The faculty may be encouraged to submit research proposals to funding agencies and industries.
- More attention should be bestowed on the quality of the publications.
- Greater association with neighbouring industries and other academic institutes needs to be encouraged.

### **CIVIL ENGINEERING**

#### **Observations**

- The department has 11 qualified faculty, with 1 Professor, 3 regular Asst. Professors, 4 Asst. Professors on contract and 3 Guest Faculty. The Department has made a request for another 8 faculty.



- There are 677 students in total of whom 280 are male and 397 female.
- The department is supported by 5 Lab Assistants, 2 Lab Technicians and 2 Supporting staff.
- The department has one Universal Testing Machine (UTM, 10 ton servo controlled) to test the tensile and compressive strength of materials. The department also has an Atomic Absorption Spectroscopy (AAS) machine and a Gas Chromatography (GC) machine, which are yet to be installed.
- The faculty of the department are handling few consultancy projects in the areas of materials testing, mix designing, non-destructive testing, proof checking, etc. and generated income of over Rs.45 lakhs during the last five years.
- The department has a placement of over 20% during 2019-20 with a package of 3.6 lakhs per annum.
- The department wishes to have a Structural Engineering Laboratory and develop itself into a Nodal Centre for consultancy in materials testing. The faculty requested for a liberal research incentive grant in addition to incentives for good publications.

### **Recommendations**

- Steps are to be taken immediately to install the AAS and GC machines, which are highly useful for student training and for carrying out advanced research and collaboration with the industry.
- A Structural Engineering Laboratory with a Nodal Centre for carrying out consultancy projects from Government Public Works Department can be developed.
- A research incentive grant to the faculty for initiating research and incentives for publications may be given to encourage the faculty.
- AMCs may be entered into for the maintenance of sophisticated items of equipment in the department.

- The placement percentage needs to be improved.
- Collaborations with leading institutes like IITs and NITs should be worked out and MOUs established with appropriate institutions in the future.

## **MECHANICAL ENGINEERING**

### **Observations**

- The department has a total of 15 faculty members with 6 regular Assistant Professors, 7 Assistant Professors on contract and 2 Guest Faculty.
- It has total student strength of 679 with 512 male and 167 female students.
- There are 11 Technical staff and 2 supporting staff in the department.
- The faculty of the department have 3 on-going research projects funded by RGUKT.
- There are 38 national and 12 international research publications and 3 published books from the faculty.
- The students of the department have recently won the “Best Innovation Prize”.
- The department has a placement of 18% during the last year with the highest package of Rs.3.6 lakhs per annum.
- It requires new laptops with at least 8 GB RAM, a high configuration workstation for design and analysis for student training.
- The faculty requested for the development of CAD lab and an Automobile lab, for student training.

### **Recommendations**

- High end laptops with the necessary softwares are to be procured soon to give the students training in the latest tools and curricular items.
- Since the department has 6 regular faculty members, they may be advised to apply for DST-FIST programme to improve infrastructure in the department.
- The faculty is advised to establish contacts with reputed institutes and enter into MoU with them in identified thrust areas.
- Steps should be taken to improve the placement percentage and in this links with the alumni need to be forged.
- CAD and Automobile labs need to be established at the earliest.

## **METALLURGCAL & MATERIALS ENGINEERING**

### **Observations**

- The department has 8 faculty members of whom two are regular Assistant Professors, 4 Assistant Professors are on contract and there are 2 Guest faculty. Also there is 1 Lab Assistant along with 1 supporting staff.
- There are a total of 167 students with 116 male and 51 female students.
- The department has 3 sponsored research projects, 2 projects funded by an Industry, Kusalava International Limited, and 1 project funded by the RGUKT. One of the faculty members has 12 publications to her credit.
- one faculty member has received the “Best Paper Award” and ‘Outstanding Review Award’ by various agencies.
- The department has state-of-the art research facilities such as Corrosion Workstation, Metallurgical Leica Microscope, Cyclic Polarization Testing Machine, X-ray diffract meter (XRD), Universal Testing Machine, Creep Testing Machine, Field Emission Scanning Electron Microscope attached with Energy Dispersive Spectroscopy Machine, Low and High Cycle Fatigue

Machines, a RF Sputtering Machine, etc., that are useful for carrying out cutting-edge research work in the field of metallurgy and materials science.

- With sophisticated equipment at its disposal, the Department should devise an action plan for collaborative research and industry linkages for more productive research and more sophisticated training to the students.
- Some of these facilities are yet to be fully installed because 10% balance amount to the tune of Rs.50 lakhs is yet to be paid to by the RGUKT to the suppliers. Some sophisticated instruments need to be maintained properly by entering into suitable AMCs.
- The department has a placement record of 13% during 2018-19 with a package of 3.6 lakh per month.
- It has established MOUs with NML, Jamshedpur, HCU, Hyderabad and NIT, Warangal for research collaboration.
- The department needs 6 Lab Assistants and 3 Lab Technicians to maintain the sophisticated equipment.

## **Recommendations**

- The 10% balance amount to be paid to the companies that supplied sophisticated equipment is to be cleared immediately and the items of equipment are to be made functional on a priority basis.
- The Committee strongly recommends that the available state-of-the-art facilities are to be extended to the faculty of sister departments and sister institutes so that inter-departmental and inter-institutional joint research programmes can be initiated in the future.
- This sophisticated equipment can lead to a clustering with outside institutes / industries for revenue generation to the Department.

- The Committee strongly recommends the appointment of Lab Assistants / Lab Technicians as soon as possible to maintain the sophisticated equipment.
- Training may be provided to the Lab Assistants for handling the sophisticated equipment.
- With the sophisticated equipment at its disposal, the Department should launch on Institute-Neighbourhood Network for taking up collaboration projects and for development of consultancy systems.
- The faculty may be advised to apply for research grants from various funding agencies and publish research papers.
- Interdepartmental research proposals may be planned and submitted to the funding agencies.

## **CHEMICAL ENGINEERING**

### **Observations**

- The department currently has just 2 Guest Faculty now handling the class work and both the faculty have the PhD degree.
- The student strength is just 22 of whom 9 are male and 13 female students.
- The faculty have 15 international publications to their credit and 1 published book along with a research award in recognition of research work.
- The department has no lab facilities for student training.

### **Recommendations**

- Lab facilities may be developed for proper student training.
- Since both the faculty possess the PhD degree, they may pursue research by collaborating with the faculty from sister disciplines in the University.

- The Faculty may also aim at developing collaborations with leading national institutes like the IITs, NITs, etc.

## **SCIENCES & HUMANITIES DEPARTMENTS**

### **Observations**

- There are 7 departments, including Mathematics, Physics, Chemistry, Bio-Science, English, Telugu and Information Technology, which are engaged in handling class work for PUC1 and PUC2 students.
- PUC1 has 1106 students with 696 girls and 410 boys, while PUC2 has 1088 students in total with 648 girls and 440 boys.
- There are 133 faculty members in total in these departments (Mathematics-21, Physics-26, Chemistry-24, Bio-Science-14, English-14, Telugu-9, IT-25) that include Mentors (>70%), Assistant Professors on contract and Guest Faculty.
- For student training during practical hours, there are 5 Physics labs, 4 Chemistry labs and 2 Bio-Science labs.
- The faculty of the departments have a good number of publications with Mathematics-12, Physics-30, Chemistry-30, Bio-science-40, English-78 and Teclugu-140.

### **Recommendations**

- The laboratories of the basic science departments need to be strengthened since the practical training that the students get at PUC and E1 level is very crucial for gaining hands-on experience in the Engineering subjects.
- These departments should be supported by sufficient number of Supporting Staff / Lab Assistants, if not individually, but at least group-wise all science departments as one group (to handle lab work) and Humanities & IT as another group (to handle day-to-day work of both faculty and students).
- The faculty with Ph.D., degree, particularly in Science departments, may be advised to apply for research projects.

- Some of the faculty members, who came forward to stay in the PUC1 and PUC2 student hostels along with students, are to be encouraged. This will provide a close teacher-student interaction outside working hours that will be highly useful since these students are minors and need support and advice.
- Orientation classes, remedial classes, and study hours for slow learners must be given high priority.

### **INTERACTION SESSION WITH THE PUC STUDENTS**

The Committee interacted separately with the PUC1 and PUC2 students and the following are the observations.

#### **Observations & Recommendations**

- All the students have unanimously appreciated the Library and Laboratory facilities available.
- They also liked the extra-curricular activities such as NCC, NSS, Sports, Music, Yoga, etc.
- The students feel the need for the revival of study hours and also the orientation / remedial classes, particularly for slow learners. The Committee recommends that suitable steps have to be taken in this matter.
- The students requested for intensive English grammar and spoken English coaching. Given the rural background of the students this is a high priority issue.

#### **General Observations**

- The students of the Institute have instituted one best practice. They have set up “Helping Hands” boxes on the campus at different places in the academic

buildings into which they make and encourage voluntary contributions to support the poor and needy people.

### **Recommendations for the Development of the Institute**

- All the HODs may be given an imprest amount per year to meet the contingency / consumable expenditure of the department.
- The department office should have minimum furniture, a computer system, a printer and a scanner, and supporting staff to meet day-to-day needs.
- The class rooms should be provided with new LCD projectors, replacing the old ones and the lighting in the rooms is to be improved.
- Drinking water facility is to be improved in all academic buildings with at least 2 / 3 water coolers in each floor.
- Sanitary conditions of the wash room areas in academic blocks are to be improved.
- The Library should be kept open till 11.00 pm, as per the request of the students.
- The playground should have a walking track and well laid courts.
- Indoor games facilities may be created in the inner quadrangles of the hostels.
- Smart classrooms have to be developed for giving a more interactive learning experience to the students by integrating learning technology, audience response technology, and assistive listening devices.

### **Co-curricular Activities**

RGUKT, Nuzvid has created good ambiance, decent infrastructure, and needed manpower, though not in full. The students have generally expressed their



happiness over the facilities and the staff concerned felt that provision of additional infrastructure will further lead to excellence on their part. The Committee visited all the co-curricular units some of which enjoy the status of Minor subjects for study. It visited the Sports wing, NCC wing, Performing Arts, Yoga, and NSS Units and held discussions with the staff concerned. Sports Wing, NCC wing, and the Performing Arts wing are located in the spacious STUDENT ACTIVITY CENTRE. The Entrance Hall of the Centre is so big that it measures about 7,000 sq.ft. Spacious playgrounds, including the Indoor games facilities, are the pride of the Institute.

### **SPORTS - Physical Education - Yoga**

The Physical Education Wing is looked after by an In-Charge Head who is an M P Ed pursuing his Ph D. He is supported by an Instructor, an Asst. Director and two coaches trained at NIS in Ball Badminton and Hand Ball. It is to be highly appreciated that quite a good number of students represented the RGUKT at the regional and national level competitions and they brought credit to the Institute. The preferred games are Ball badminton, Basket Ball, Chess, Fencing, Football, Handball, Softball, Table Tennis, Volleyball and Shuttle Badminton. Incentive Marks are given to the top performers as provided in the rules. The Committee is happy to note that the students have bagged as many as 232 Medals comprising 128 Gold, 62 Silver and 42 Bronze medals. An exclusive two –storied Yoga Sala in the campus (outside the Student Activity Centre) provides regular Yoga and fitness training in the morning and in the evening. The Head I/c of Sports also looks after the Yoga Centre. He holds the M.Sc. degree in Yoga from Annamalai University. About a total of 1000 students attend the morning and evening sessions. Girls and Boys attending the yoga classes are in the ratio of 60:40 respectively. Yoga classes for PUC students are arranged in the afternoon between 3.30 pm to 5 pm for both juniors and seniors separately for 2 days in the week. It is understood that not many teachers and their families attend yoga classes. Students participated in Yoga Competitions at the national level and won many prizes and appreciation from national level leaders like the President, Vice-President, and Prime Minister, and also from state level leaders. It is a laudable initiative on the part of the students that they in their turn propagate Yoga and sensitized and trained about 20000 persons in Yoga in their villages during their vacation.

### **Recommendations**

- Since the students excelled in national level sports, the Institute needs to strive to build up capabilities for participation in international Sports competitions.
- More students should be motivated to participate in sports and games for the full utilization of the sports fields and related infrastructure.
- The Indoor stadium needs some more facilities as requested by the staff concerned. It may be looked into favourably.
- The spacious entrance lobby measuring about 7000 sq. feet is used as Skating Track now and then by just about 20 students. Better use of this area needs to be planned.
- The Sports Wing informed the Committee that they requested the Director for a grant of Rs.6 lakh for equipment and Rs.24 lakh towards maintenance per year. This may be considered as per norms.
- All the students are from rural areas and they should not lose track of their traditional rural sports. Focus may be laid on this aspect too.
- It is desirable to motivate the faculty and their family members to take part in Yoga Classes which will have demonstrable effect on their personality. The present level of student participation in Yoga is low when compared to the student strength on the campus.

### **NCC WING**

The NCC Wing of RGUKT-Nuzvid consists of two units with 160 boys and 200 girls enrolled as cadets. The two faculty members in charge of NCC are trained officers in the rank of Lieutenant. Both of them are designated as Associate NCC Officers. They are also associated with the Sports Wing as Physical Education Instructors. About 40 students passed the C Certificate and another 85 students got through the B certificate. Two Cadets participated in the Republic Day Parade at New Delhi. The NCC wing is located at the Student Activity Centre Building. Two office rooms, separately for boys and girls, are provided. Weapon training and map reading are undertaken by the cadets.

## **Recommendations**

- The NCC Officers are also involved in Sports activities. Dedicated Officers exclusively for the NCC wing will add value to the activities.
- The NCC Wing requires some basic things like the construction of the NCC Flag area , both for Boys and Girls, Sign Boards, latest Teaching Aids, NCC Study Material for 'B' and 'C' Certificate Examinations, DP Rifles, etc.

## **NSS WING**

RGUKT, Nuzvid has as many as 10 NSS Units, each unit with 100 Volunteers. The activities of each unit are coordinated by faculty belonging to different disciplines. NSS wing is located in Room No. 63 of the Administrative Block. The Activity Report for the year 2018-19 includes - adoption of 10 villages, 10 special camps, planting of 300 saplings, donation of 150 units blood, 100 volunteers participating in pulse polio benefiting 200 children, 3 health camps involving 400 volunteers, 2 Awareness Programs involving 400 volunteers, and 100 volunteers participating in Sramadan. About 100 volunteers are trained in self-defence, the total training period being eleven hours. The Government of AP released Rs.4,47,985/- for the year 2019-20 vide GO RT.No.178 Higher Education (NSS) Department dated 05-11-2020. Considering the numbers, the NSS has a lot of scope to attempt comprehensive rural reconstruction.

## **Recommendations**

- NSS activities also provide scope for Social Scientists to conduct specialized studies of rural skill development, education and employment, utilization modes of social benefits, etc.
- The NSS Wing with its 10 units involving 1000 volunteers can reach out to the surrounding villages. Lots of awareness camps can be undertaken on different socially useful subjects. If necessary, the administration may consider sanctioning some additional funds over and above the government allocations as per rules.
- It is well known that NSS was introduced by the UGC and the Govt. of India in 1969 on the eve of Gandhi Centenary Celebrations. We just had the 150<sup>th</sup>

Birth Anniversary of Mahatma Gandhi. The Committee feels that RGUKT can be a Role Model University in the country by initiating a SWACHH BHARAT MISSION UNIT on the campus with students volunteering to join it and take up a leadership role of KEEPING THE CAMPUS CLEAN and also beautifying it with greenery with flowery trees, with faculty coordinators and skeleton sanitary staff assisting them in the task. Students can be made to participate for two hours every Saturday or Sunday by rotation in this activity. Necessary monetary allocation may be made for this as also the supply of sanitary equipment and tools. Probably when such thing happens, RGUKT will become the first University in India to have a Swacch Bharat Mission Unit in India to be a role model for other educational institutions in the country.

- One support staff also may be provided exclusively for NSS and Swachh Bharat Mission Unit.

#### **FINE ARTS & PERFORMING ARTS WING**

It is an imaginative conception of the founding fathers of RGUKT that they thought of providing facilities like Fine Arts / Performing Arts music - oral and instrumental, classical dance, etc.,-aimed at developing the all round personality of the students. Faculty members qualified in the relevant areas offer training to the students. 294 students have enrolled themselves for the Minor Degree Courses in Vocal, Instrumental and Kuchipudi. The department possesses the equipment necessary as also a computer system and a printer. A total of 76 Performances in different items have been given by the students under the guidance of the faculty so far. NAMAMI GANGE has been well appreciated all over. The Committee watched the rehearsals of the students –vocal for a while - and got impressed. The Unit not only showcases the talent of the students but also enlivens the campus with possible occasional musical treats.

#### **Recommendations**

The University may explore the possibility of motivating more students to offer courses in the fine arts as part of a liberal education programme which the National Education Policy-2020 has outlined or as Add-ons.

- In a residential campus, campus residents, especially women, must be encouraged to receive training in the Fine Arts.
- The request of the Department for additional staff - Kuchipudi Dance Teacher, Accompanist in Vocal and Mrudangam, along with an assistant as Support staff, and also the necessary music software –may be considered.
- Also the possibility of expanding the scope of Fine Arts Courses offered by adding Painting, Sculpture , doll making, etc., may be considered.

### **RGUKT Central Library, Nuzvid**

#### **Observations**

- A three-floor Central Library building with excellent ventilation and with good layout for books and periodicals and a reading room facility is a prized possession of RGUKT, Nuzvid and this fact has been jubilantly stated by the students with whom the Committee interacted.
- The Library in all has about 33,000 books plus 26 periodicals and 15 technical journals.
- Every floor has a spacious reading room facility with decent tables and chairs.
- E-resources are also available along with IEEE Explore digital library.
- On an average about 1,500 to 2,000 students visit the Library every day, which is laudable.
- Students are entitled to borrow 3 books for 15 days initially, renewable online for another 15 days.
- Fines are levied @ Rs. 1/- per day per book for the first 30 days and at Rs. 2/- per book per day beyond 30 days.
- Fines collected are remitted to the credit of University through the bank.

- The top floor of the Library is earmarked for students interested in appearing for competitive examinations and has the necessary books. Though this section is to be further strengthened, the students are happy about the facility.
- The administration consists of a Librarian-in-Charge. An Asst. Professor of Civil Engineering has been working in this capacity for the last six months. Another teacher of the Telugu Dept. has been the Co-ordinator for the last eleven months. The technical staff include one with post graduation In Arts and also M.Li.Sc., as Library Assistant, working since seven and half years, one with post-graduation in Arts and pursuing B.Li.Sc. course as the Care-taker, working since three years, one with M.Com, B.Li.Sc, pursuing M.Li.Sc. course as Record Assistant, since three years along with one Attender working for the last two months with tenth class qualification.

### **Recommendations**

- A full-time Librarian with necessary qualifications in Library Science needs to be appointed.
- Necessary supporting staff – a minimum of 3 more Attenders/Sorters with minimum qualification of Tenth class need to be provided either on full-time or on out-sourcing basis.
- Immediate steps need to be initiated for providing Wi-Fi facility.
- The Library working hours need to be revised from the present 6.00 am to 10.00 pm to 8.00 am to 11.00 pm to suit the convenience and requirements of the students and the faculty.
- Steps may be initiated to go in for computerization of all Library services.
- An experimental 'Earn-while-Learning' scheme may be introduced, offering nominal payments for Library services rendered by intending students.
- Access may be explored for other digital publications like Elsevier, Wiley, IoP and other journals, and also Science direct.

- Regular budgetary allocations need to be provided every year.

### **General Recommendations**

- Vehicles, mostly two wheelers of the faculty are seen being parked at the entry points - porticos of all academic and other buildings. While the ambience of the buildings is good, the present irregular parking obstructs the passage to the portico of the buildings. Necessary steps may be initiated to provide exclusive parking facility for all four wheelers and two wheelers either at vantage points in the campus or at suitable places near the building.
- The campus, though large, is by and large kept clean. However, places nearer the hostels and dining halls are vulnerable spots with lot of used plastics and other garbage thrown in the drains leading to clogging and also on the roads. Waste food is also thrown in the same way. Immediate action is needed to ensure that a constant vigil is maintained and all the drains and surroundings of all hostel buildings are kept clean.
- While NSS and NCC units do provide some community service, they may be asked to involve themselves in making the campus clean, supplementing the efforts of the present maintenance staff.
- Class rooms in all the academic buildings are very good. However, the present lighting system may be replaced by better lighting using LED bulbs.
- The teacher is not audible for the students in the last benches. As such suitable public address system like collar mikes may be thought off. The LCD projectors installed long ago, need to be replaced by new ones to make the smart class room more effective.
- The recently added 69 acres of additional land provides for an opportunity to develop a kitchen garden, a flower garden and if possible a fruit garden, earmarking at least one to two acres of land for each of them with organic farming, utilizing the services of skeleton garden staff and voluntary periodical free service of the students. All the students come from rural areas and mostly belonging to agricultural families. Gardens so developed out of shramdan out-turn will be a unique asset to RGUKT.

- The campus has been developed over a relatively short period of time to an extent where the present campus offers no scope for further expansion. The structures raised make aesthetic appeal, thanks to the vision of the founding fathers, Dr.Y.S.Rajasekara Reddy, Prof.Raj Reddy and Prof.K.C.Reddy. This remarkable development within such a short span of time is enviable. However, greater green cover needs to be provided around various buildings and on the roadside of the campus. Tree plantation may be done after a careful design plan making use of the voluntary services of staff, students, NSS and NCC. The students, in their interaction session with the Committee have expressed their willingness to participate in this initiative.
  
- For the newly acquired campus, a master plan may be developed. In the development of the master plan and the structures that are going to be raised in future, the Civil Engineering Dept. with this structural engineering unit may be involved in planning, quality control and partial supervision so that this venture serves as a laboratory practice for the teachers of the department.
  
- The laboratory and infrastructural facilities of the departments are in general good with a few exceptions.
  
- Items of equipment of high value (particularly in the MME dept) have been purchased, but the final payments have not been made for accessing them to their fullest potential. Such payment to the tune of approximately Rs.80 lakhs in MME and Rs.20 lakhs in Chemical Engineering department are to be made.
  
- These high end items of equipment are a proud possession of RGUKT and through them MOUs with relevant industries can be made for generating industry income for the departments, raising the quality and content of research, and also for improving the placement opportunities of the students. This is, therefore, to be attended on a high priority basis.
  
- Placement activity is not impressive at RGUKT. While there is a Placement Cell, dedicated efforts through proper industry collaboration, training and exposure is not attempted for various reasons. Also, there seem to be lack



of coordination between the Central Placement Cell and the individual departments.

### **STUDENT SUPPORT SERVICES**

With such a large number of students, faculty, and support staff living in the campus the need for suitable support services has been recognized by the RGUKT and essentials like a HOSPITAL, POST OFFICE, SBI BRANCH along with an ATM for Girls at the Girls hostel, a POLICE OUTPOST, FOOD COURT, etc., have been provided. The students are happy about these facilities and feel secure on the campus.

The Hospital is a unique facility. It is spacious with provision for wards separately for staff, boys and girls. In addition, there are a pharmacy, emergency ward, and a Resident Medical Officer available round the clock. Clinical tests, Ambulance, services of the nursing staff, etc., are all free of charge.

### **Recommendations**

- The Food Court prices seem to be on the higher side, given the economic levels of the students. A periodical review of the availability of items, hygiene, and prices of the items may be made and feedback from the students obtained.
- Girl students want the administration to revive the facility of the small store concept in the hostel premises. It is felt that apart from the Food Court, a small departmental store with necessary provisions will be of use to both students and the staff staying on the campus.
- The Resident Medical Officer may train students in first aid and the students in turn, through the NSS, may reach out to the rural areas imparting knowledge of first aid to them.
- It is suggested that a dermatologist and a gynecologist may be appointed on part-time basis to offer consultation at the Hospital once a week.
- The entire Campus is devoid of any organized washing of clothes facility. The inmates do their clothes washing themselves, with the result that a lot of water gets wasted and water logging takes place in the surrounding areas.

For drying of clothes space is not specifically earmarked. The present place where clothes are put to dry gives a shabby look when one visits the hostels. Recognizing this, the administration, it is understood, took the initiative to provide a Mechanical Washing of Clothes facility and constructed the structure where to house this and procured giant washing machines spending more than Rs.1.0 crore. But it is not put to use yet. Steps may be initiated immediately to bring the facility into operation.

- There is also the need for a gym on the campus to promote the physical culture of the students and campus residents.
- A Kindergarten School, and if possible A Primary School up to V Class in English medium for the children of the faculty and the support staff who are resident on the campus, are necessary. Probably some of the inmates of the campus - housewives - may be engaged as teachers provided they meet the requirements. Or the RGUKT can negotiate with the Central Schools Organization for the establishment of a Central School.

#### **RGUKT –NUZVID –GENERAL RECOMMENDATIONS**

- Pest control measures on the entire campus
- Implementation of the Earn While You Learn Scheme
- Exploring possibilities of producing Wealth from Waste
- Full utilization of M type quarters (40 in number) - all 3 BHK apartments – to be made
- Free bus facility during day time for campus residents and the disabled

#### **RGUKT –NUZVID –BOYS HOSTELS**

The Committee visited the two hostels for boys on the campus. These are huge structures with four floors each with lung space in the middle, each floor having 208 rooms. Srikakulam students, both boys and girls, are accommodated on the top floors of the Administrative Block.

#### **Observations**

- The hostel rooms are over-crowded. Space enough for two inmates is being used for three inmates, leaving no space for free movement in the rooms. Windows at many places do not have doors or mesh.
- Proper notice boards are not there in the premises and so notices are pasted on walls giving a shabby look. One notice board with a plastic sheet frame is in a broken condition. The flexi displaying the General Regulations is torn and not yet replaced indicating lack of alertness in maintenance.
- Leakages in the pipelines are noticed resulting in wastage of scarce water. It is understood that there has not been any major pipeline check up since 2008.
- All bathrooms and toilets are in a bad condition. Commodes are broken. Urinal basins are not functional. Bath room doors are not in order. Many taps need replacements. The upkeep of these facilities is not proper. Wash room areas are cleaned only once a day. The phenyl supply too is inadequate. But there are eight sanitary staff and eight housekeeping staff for each building, indicating insufficient utilization of available manpower.
- The Reading Room in the ground floor was seen having two cots and news papers spread all around. There were no chairs. One of the two fans there was not in working condition.
- Electrical wires were found hanging from the ceiling.
- There is only one Care Taker per block.

## **Recommendations**

- A special internal committee of the faculty (without the current wardens and the caretakers) may be constituted to make a critical study of the situation in the hostels for a complete overhaul.

- Home Tutors may be appointed from among the unmarried faculty and they may be asked to stay in the hostels, preferably at least one in each floor of the all the blocks, to have continuous monitoring and supervision.
- CC TV Cameras may be provided at the entrance gate of the blocks and also at vantage points.
- Steps may be initiated to reduce overcrowding in the hostels by planning the construction of additional block/s on a priority basis.
- Plastic name plates may be fixed at the entrance of each room mentioning the names of the occupants. Also, at the entrance there should be a computer giving details of the inmates and their room numbers for ready information.
- Painting of the hostel needs to be taken up periodically.
- Incentive schemes for cleanliness and BEST ROOM Competitions may be introduced.
- Developing greenery all around the hostels and also in the inner quadrangles may be initiated.
- Each floor may be provided with Garbage bins. Each room should have a waste bin. Garbage may be arranged to be dispose of regularly.
- Drains at the hostels and dining halls need to be cleaned every day.
- Broken tiles at most of the six dining halls and at many other places may be replaced.

### **RGUKT - Nuzvid Girls Hostels**

- Girl students constitute a major segment of campus inmates. RGUKT, Nuzvid campus is a home not only for students of this institute, but also a substantial number belonging to RGUKT, Srikakulam institute. All the girl students right now are staying in 3 blocks consisting of 4 floors in each block in addition to

upper floors of the administrative block. The 3 blocks are named as K2, K3 and K4. The hostels are monitored by the Dean of Student Welfare and a Warden with designated Care-Takers. The Dean of Students Welfare and the Warden are faculty members and they hold these positions as additional charge. The dining facilities for breakfast, lunch, snacks and dinner are arranged as a common facility to both boys and girls in 6 dining halls during 7.00 am to 8.30 am, 12.00 hrs to 1.30 pm, 5.00 pm to 6.00 pm and 7.00 pm to 8.30 pm respectively. Each dining hall has a seating capacity of 400 to 500 students. Women security work on shift basis round the clock at all the blocks. Wi-Fi facility is available in hostels.

### **Observations**

- The Committee felt that these hostels are over-crowded. More number of students are placed in almost all the rooms than it can accommodate. There is hardly any place for free movement, let alone for reading.
- Maintenance of the hostels, rooms, verandas and wash rooms is not at the desirable level. At many places water leakages are found, resulting in wastage of precious water. Notices are pasted on walls.
- The surroundings of the hostels and the dining halls are not properly cleaned.
- Drains are clogged and contain plastic bottles and other garbage. Students need to have an orientation class on the cleanliness of the premises at the commencement of the academic year and sanitary staff alertness ensured by proper administrative planning.

### **Recommendations**

- Steps may be initiated to have one more hostel block to ease the congestion and allow limited number of students per room based on its size. Ideally 2 students to a small room and 4 students to a bigger room may be permitted.

- Proper notice boards may be fixed in all floors so that there is proper display of notices.
- It is desirable to introduce suitable biometric attendance system that generates the absentee statement on a day-to-day basis.
- Proper reading-cum-recreation hall may be arranged in each block.
- Suitable monetary incentive may be introduced to the faculty members, who are working as Wardens as additional duty. It is understood that they don't get even any reduction in their teaching workload.
- Steps may be initiated to involve intending girl students to participate in the development of greenery around hostel blocks, also support services in the dining halls to promote the aesthetic appeal of the surroundings and hygiene inside.
- There is a shortage of tables and chairs in dining halls to be addressed.
- Suitable metal/plastic name boards may be fixed on the doors of all hostel rooms so that the doors are not spoiled and also give a decent look.
- It may be useful to explore the possibility of solar water heating system to be installed on the terrace of the hostels to facilitate the supply of hot water during winter.
- Sanitary towel vending machines and incinerator may be installed to supply the same at nominal charge in each hostel block.
- Provision of high configuration computer systems in a spacious room in the hostels will an added incentive for study in a technological institution in the context of problems with laptops.
- The central rectangular open space in each block can provide for proper drying of cloths as well as for select games activities.

- Plantation all around that quadrangular space may also be thought of to give an aesthetic look.
- Single women teachers may stay along with girl students in the hotels so that continued monitoring and guiding of the girls is possible. Some teachers reacted positively when this suggestion was made by this Committee.
- Installation of CCTVs at the entrance and exit points is desirable.
- Instead of calling these hostels, K2, K3 and K4, they may be named appropriately by the rivers.

### **Financial Administration**

A systematized financial structure with appropriate budgetary allocations and headed by a well qualified and capable Finance Officer sine qua non of a University of this size. The financial administration at RGUKT in general and at the Nuzvid Institute in particular has been based on adhoc policies and without any clearly outlined year-wise budgetary allocations for different items of revenue and expenditure. At present an Assistant Professor is holding the post of Finance Officer as additional responsibility. He works under the direct supervision of the Administrative Officer and the Director. Whenever certain proposals are received from the academic and administrative departments, files are moved by the Finance Officer and sent to the headquarters through the AO and the Director and on receipt of sanctions, payments are affected.

The accounts are subjected to audit by qualified internal auditors appointed by the University as per the procedure. State audit is also carried out periodically. As on this day, this is completed for the year 2018-2019.

All Universities are supposed follow the financial administration manual as per the Report of the Committee on Common Finance and Accounting Rules for Universities in the State of Andhra Pradesh and approved by the Government of Andhra Pradesh. A proposal for implementation of this report in to has been put up for consideration at the EC meeting of RGUKT, Nuzvid held on 16-11-2017. The VC, RGUKT constituted a Committee under the Chairmanship of Dr. B. Sundar, IFS.,

as Chairman and four more members on 24-11-2017 and requested the Committee to submit its Report before 11-12-2017. It is understood that the report has not been submitted to this day, and so the financial administration still continues on the old pattern in spite of the policy frame work suggested by the State Government. This Committee recommends the immediate adoption and implementation of the State Government Committee's recommendations, which it seems has also directed once again all Universities to adopt the said structure forthwith.

Every time a purchase is to be effected, the University is adopting ad-hoc policies. It may be mentioned here that a draft purchase policy prepared by the University has been put up for consideration at the EC meeting dated 12-06-2015. The minutes of said meeting state as follows – "Approved. However, EC examined the entire manual presented in the annexure very carefully and suggested a few modifications". The EC has also indicated a few examples and suggested that the purchase manual will be re-drafted incorporating suggested modifications. Unfortunately, no action was initiated even on this draft purchase policy so far. This Committee recommends taking appropriate action on re-drafting the purchase policy, if necessary, and its due approval and implementation as early as possible.

It has come to the notice of this Committee that there are several pending payments as to the last installment of purchase of equipment and machinery required for academic departments and also other units. To make a mention, the Department of MME brought to our notice that an amount of Rs.50 lakhs as balance payment for very costly and useful equipment is pending for the last several years. Similarly, an amount of Rs.20 lakh is also pending in the same way in the Dept. of Chemical Engineering. This matter was discussed with the Finance Officer and it has been brought to our notice that due to some unavoidable circumstances and lack of clarity on the sanctions from the Headquarters, the payments were withheld. The academic staff feel that the equipment which is not installed as yet by the supplier for not making the final payment has denied them the opportunity of utilizing this valuable resource. If the purchase of these items of equipment is finalized and the items are put to use, the potential for research, consultancy and collaborative initiatives will be strengthened giving RGUKT greater academic visibility. Non-payment of bills for so long results in a negative image for



an institution like the RGUKT. This Committee recommends that appropriate action may be initiated for ending this stalemate.

### **SRIKAKULAM AT NUZVIDU**

Consequent on the announcement of starting the RGUKT Institute at Srikakulam by the Govt. of AP in 2016, in view of the absence of infrastructure at Srikakulam, it was decided to admit students to the Srikakulam Institute but locate them at Nuzvid. The students thus admitted since then are provided both learning and residential infrastructure at Nuzvid. The faculty were hired specifically for the Srikakulam Institute. Since 2019, after the acquisition of some buildings belonging to the erstwhile Twenty-first Century Gurukulam at Srikakulam and hiring the premises of a local Engineering College, PUC -1 and PUC-2 have been functioning

at Srikakulam and E1 and E2 in ECE, CSE, ME, Civil, Chemical Engineering and MME function from RGUKT, Nuzvid. Branch-wise particulars of students pursuing studies at Nuzvid are furnished hereunder:

ECE-----23-----658

CSE-----20-----712

ME----- 8-----310

CE-----5-----216

Che.E----2-----22

Total---58---1,918

All these students are also provided hostel accommodation at E-1 (first floor of the Admn. Block) and at E-2 Blocks.

### **Observations**

- The Committee felt that separate Institute-wise arrangements for Nuzvid and Srikakulam could have been avoided. Probably initially it was thought that when the full infrastructure was developed at Srikakulam, these students could be shifted there. But now it looks as though the present E2 and E3 students would complete their course at Nuzvid only, but get a certificate that they belong to RGUKT, Srikakulam.
- There is a feeling among the faculty and students of Srikakulam that they are second rate citizens on the campus, given their location mostly in sheds and not in pucca buildings.
- Among the five departments, the faculty of ECE and CSE are a more motivated lot than the others. There is lot of enthusiasm among the faculty and earnest efforts are made by them to initiate best practices and adopt 'Learning by Doing'.
- In respect of Chemical Engineering, with just 22 students in E-1 and E-2, the Committee felt that these students could have been put together with their counterparts at Nuzvid. When this was sounded, it was informed that it was

attempted, but the students wanted their separate identity to be maintained. The Committee examined the issue from the viability angle and felt that the final identity is that of the RGUKT which has a brand value.

- Until recently, the Director I/C was a faculty member from Srikakulam. Now it is understood that the Director I/C of RGUKT, Nuzvid is the Director for the Srikakulam Unit at Nuzvid, which is an appreciable initiative of the current administration.
- Interactions with the students reveal that they are in no way inferior to the students of Nuzvid, and they seem to be more motivated to improve their skills. They have put in good efforts to improve their English communication skills.

### **Recommendations**

- Between the Nuzvid and Srikakulam units, a spirit of complementarity may be developed in the matter of the sharing of infrastructure.
- Requests for the creation of basic infrastructure facilities may be sympathetically considered.

### **RK VALLEY CAMPUS**

The RK Valley campus of RGUKT is spread in a lush green area covering 354 acres of land. It has 34 buildings in all in a plinth area of 90,15,223 sq.mts. There are four hostels (two for boys and two for girls) accommodating 6000 students. With a Hospital with enviable infrastructure and all the attendant facilities necessary for a self-contained township like a shopping complex, vast sports fields, yoga centre, centre for performing arts and an impressive Guest House, the RK Valley campus is always abuzz with activity.

## **Academic and Financial Audit Report**

### **DEPARTMENT OF CIVIL ENGINEERING**

With a faculty strength of eleven and student strength of 681, teacher student ratio is 1:62. Only one teacher possesses Ph.D., and one more teacher is registered for Ph.D. Cadre-wise, the faculty consists of one Associate Professor, four Assistant Professors (Regular), five Assistant Professors (Contract), and one Guest faculty. One of the Assistant Professors (Regular) is on study leave. Except two teachers, all others stay on the campus. The senior teacher is a recognized guide for doctoral work at JNTU. He has guided one Ph.D., student, whose thesis is under adjudication and also guided five M.Tech., students. The department generated an amount of Rs.15 lakh during 2018-2019 under consultancy. The faculty has published a total of 9 papers and one book.

### **Observations**

- The department faces shortage of space for all most all the labs and faces inadequacy of licensed software.
- While remedial coaching is attempted, extra focus is needed on the structural design of the course and formalizing it.
- Mediation through ICT enabled teaching is inadequate.
- The department is associated with the responsibility of supervising the civil construction of the campus buildings.
- The department was associated with building a helipad in 2015 and also a walking track.
- Was also involved in developing a park.

### **Recommendations**

- Licensed software such as AutoCAD, Revit, etc., need to be procured at the earliest.

- The department needs immediate up-gradation of AutoCAD lab. It is understood that the department has already submitted a proposal for this.
- Given the teacher student ratio at 1:62, additional staff recruitment may be necessary.
- The present equipment purchased more than 8 years ago needs to be repaired and updated.

#### **DEPARTMENT OF CHEMICAL ENGINEERING**

With a faculty strength of seven and student strength of 161, the student teacher ratio is an ideal 1:23. Two of the seven faculty possess Ph.D., and three more are enrolled for Ph.D. The department is using the ICT mode/MOODLE based learning. Some teachers prepared a few video lectures. The faculty have four publications to their credit so far.

#### **Observations**

- The teaching is not appropriately focused on ICT enabled teaching/learning.
- The department has advanced research equipment available including Gas Chromatograph, HPLC, UV Visible Spectra photometer, etc., but the items of equipment are not in full use because of payment of dues and installation issues.

#### **Recommendations**

- The request of the department for AMCs for the labs should be considered favourably and a policy decision in the matter for all campuses may be necessary for uniformity.
- Measures have to be initiated for collaboration arrangements with reputed institutions / research organizations.

- The faculty needs to be encouraged to display their potential for consultancy, which will be enabled by the sophisticated equipment available.
- Effort should be made to promote an entrepreneurship culture as an institutional value among the students.

#### **DEPARTMENT OF METALLURGICAL AND MATERIALS ENGINEERING**

With five teachers and 173 students, the teacher student ratio is 1:35. Of the five teachers, two possess Ph.D. The faculty have a good number of publications to their credit. One teacher bagged a research project on “Assessment of wetting and heat transfer characteristics of edible and non-edible vegetable oils for heat treatment” to the tune of Rs.26.05 lakh in August 2016 funded by SERB. The project is successfully completed. The department has seven laboratories.

#### **Observations**

- The faculty stand apart from others with a good number of publications (35 papers and 3 book chapters).
- Seven students got qualified in GATE.
- There is good potential for consultancy in the context of the availability of many testing labs.
- In respect of internships and in placements, the department has fared well.
- Some faculty members updated their skills by doing courses through the MOOCs.
- High Temp Tensile Tester, Impact Testing Machine and two more items costing around Rs.70 lakh were procured but not installed due to lack of space. Since 2014, they are kept in unopened parcels - two in the first floor of the academic block and two in the supermarket yard.

#### **Recommendations**

- AutoCAD and MATS labs software may be provided on a priority basis.

- STEPS to be initiated to resolve the issue of uninstalled items of equipments. It is unfortunate such costly equipment should be kept unattended for such a long period.
- Sufficient number of qualified lab assistants may be provided.

## **DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

The Department of Electronics and Communications Engineering has on its rolls 1,020 students. There are 4 Assistant Professors (Regular), 17 Assistant Professors (Contract) and One Guest Faculty. The teacher student ratio is 1:46. There are 10 Technical staff to assist this department and the Electrical Engineering department. None of the faculty possesses the Ph.D. degree. In all, they have published 10 National Level and 6 International Level papers. However fourteen of these publications are in Conference Proceedings. Though some of the faculty in the department have been working since 2010, there are no consultancy projects for the department.

The department offers remedial assistance by identifying the weaker students based on the results of the assessment tests and mid-term tests. The department organized a six-day workshop for E3 students on machine learning in collaboration with the APSSDC. Students are encouraged to do summer internships in IITs and core companies like Analog Devices, Efftronics, etc. For teaching-learning, the department makes use of the ICT and also draws support from the SWAYAM platform.

### **Observations and Recommendations**

- In view of the importance of the subject and the employment potential for the students, the department must establish durable links with leading core companies to enable students to work on projects, obtain hands on experience, and pursue their internship programmes.
- The department's laboratories were instituted about 10 years ago and therefore there is a need for infrastructure up-gradation and for the acquisition of licensed softwares like MATLAB, PSpice, etc.

- There are 4 faculty claiming VLSI specialization and two trained in Embedded systems. In view of marketability of these subject areas special focus should be laid on field training and skill enhancement of the students.
- The faculty should be encouraged to identify areas where they can offer consultancy. The constitution of a Consultancy Cell is a priority.
- Research projects and publications are an important part of the career advancement drive of the faculty and so they need to pay attention to viable project proposals, identifying funding agencies, and publication avenues. In a university system, such activity is an important aspect of academic life. The self-definition of the teacher in terms of his academic orientation and goal-setting should be striven for.
- The department should also have a special Placement Cell working in close coordination with a central University level placement cell.
- The department should identify areas for faculty development and seek sanction of FDPs that help the faculty to be acquainted with the thrust areas of knowledge in the subject.

## **DEPARTMENT OF MECHANICAL ENGINEERING**

The Department of Mechanical Engineering has 10 faculty members, one of them possessing the Ph.D., degree with a student strength of 510, the Teacher – Student ratio is 1:51. The faculty consists of 6 regular Assistant Professors, 2 contract Assistant Professors and 2 Guest Faculty. The department has 7 Lab Assistants, 2 Lab Technicians and 1 Office Assistant. The faculty have only 1 publication to their credit and 1 patent applied so far. Placement is at a low level although in the last 6 years there has been some improvement. One teacher has bagged an MHRD research project on “Design and development of biomass fired wood gas stoves for rural applications” of the value of Rs.97.80 lakhs in March 2016. It is an ongoing project right now. The project is for a period of three years, but has been extended by another three years. The project is in association with JNTU, Kakinada, and funds are released through JNTU-K

### **Observations & Recommendations**



- The department requires new equipment for the labs with a total estimated cost of Rs.2.0 crores. Out of the 4 items required, tenders were called for metal cutting and machine tools lab for an amount of Rs. 80.0 lakhs, but the equipment has not been received so far. The other equipment relates to metrology and mechanical measurement lab, IC engines and refrigeration and air conditioning lab and computer aided modeling and simulation lab.
- An Expert Committee in the subject may be constituted to consider the proposals for equipping the laboratories in stages.
- The department also requests for software for MATLAB, Mathematical, ANSYS package and modeling software.
- The department needs AMCs for all its existing items of equipment.
- The department's request for the starting of M.Tech., in Mechanical Engineering may not be accepted at this stage.

#### **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

The Department of CSE consists of 25 faculty with 5 regular Assistant Professors, 1 Lecturer, 13 contract Assistant Professors and 6 Guest Faculty. None of them possesses the Ph.D., degree. With a student strength of 1119, the Teacher – Student ratio is 1 : 45. The faculty of the department are unable to get registered for Ph.D., and they have requested the RGUKT administration for an MOU for this purpose with technological Universities. The department has 4 technical staff where one of them is a Lab Assistant and the remaining 3 are Guest Lab Assistants. The number of journal publications for the entire faculty is 70, with 35 conference presentations. The department proposes to start B.Tech., in Artificial Intelligence. The faculty members are motivated to update themselves by registering for coursera, Edex, swayam on their own. The material from the above platforms is also provided to the students and they are encouraged to register for the same. The department requests the University to provide grants to develop one computer lab with 60 high end GPU and CPU units, several software packages and 10 more faculty positions. The placements have been low for all the earlier five years, but for the latest year, it is at the level of 68%.

#### **Observations & Recommendations**

- The proposal to start B.Tech., in Artificial Intelligence may not be accepted at this stage.
- The request for computer lab, additional software and additional faculty positions may be looked into after an assessment of need and based on the availability of resources.
- The priority for the Department at this stage is acquiring the latest equipment and softwares and training the students to be better placed by honing their skills and by following a concrete plan of action.

#### **DEPARTMENT OF PHYSICS**

The Department of Physics offers Physics course to 1<sup>st</sup> and 2<sup>nd</sup> years of PUC, 1<sup>st</sup> year, 3<sup>rd</sup> year and 4<sup>th</sup> year of B.Tech., students. With 19 faculty members and a student strength of a substantial figure at 3663, the Teacher- Student ratio is 1:192. The faculty consists of 7 Assistant Professors, 6 Mentors, 1 Lecturer and 5 Guest Faculty. 4 of them possess the PhD degree. The department offers many courses both as Major and Minor. There are 6 Lab Assistants and 1 Lab Technician. The department has basic equipment acquired long ago. The department has 2 research projects – one funded by DST-SERB for an amount of Rs.9.31 lakhs and sanctioned in 2013 and the other funded by UGC-DAE-CRS BARC, Mumbai for an amount of Rs. 10.7 lakhs for the period 2017-21. The department has collaborative arrangements with IIT, Bombay; IISc, Bangalore; UGC-DAE-CRS BARC, Mumbai; IIT, Hyderabad and Central University, Jharkhand. The senior faculty have to their credit a total of 31 publications. The department proposes to offer B.Tech Engineering Physics, M.Sc., Tech Physics, M.Tech., in Nano science & Technology, M.Tech., in Renewable Energy and also wishes to develop a Renewable Energy laboratory. The department wants the University administration to sanction as many as 20 items of equipment, costing about Rs. 18.74lakhs. The department also asks for additional faculty and additional space.

#### **Observations & Recommendations**

- The work load seems to be heavy given the large segment of students dealt with by the department. Additional faculty positions need to be considered.

- Since the present items of equipment in the labs provide for only the basic requirements of the students, at least some of the items of equipment requested by the faculty have to be positively considered.
- As to the future plans of the department, to start B.Tech Engineering Physics, B.Sc., Hons., M.Sc., Tech in Physics., etc., the Committee told the faculty that the major focus of RGUKT is Technology related courses and not basic science courses. However, their proposal for developing a Renewable Energy laboratory needs to be looked into as it is in tune with the objectives of RGUKT.

#### **DEPARTMENT OF CHEMISTRY**

The department of Chemistry offers courses for PUC1 and PUC2. With a strength of 20 faculty members and 3433 students, the Teacher-Student ratio works out to 1:172. The faculty composition is – 10 Assistant Professor (C), 7 Mentors and 3 Guest Faculty. 6 faculty members possess the Ph.D. degree. There are 5 Lab Assistants. This department also wants to offer regular BSc., M.Sc., courses and also M.Tech., courses in Nano structured Materials Technology and Renewable Energy Technology. The department wishes to establish a research laboratory by acquiring additional equipment along with software and additional space. The faculty have a publication output of 55.

#### **Observations & Recommendations**

- Considering the objectives of RGUKT, no basic courses be allowed to be offered, but if a Renewable Energy lab is developed, the department can be made a partner with the department of Physics.
- Instead of the proposal for starting M.Tech., in Nano structured Materials Technology, the subject as a component of the courses of study may be considered, to begin with.

#### **DEPARTMENT OF ENGLISH**

The Department of English offers instruction to PUC1, PUC2, E1 and E2 courses students numbering 4,206. With a faculty strength of 10, the Teacher-

Student ratio is 1:420. The faculty composition is 1 Assistant Professor, 5 Mentors and 4 Guest Faculty. None of them possesses the PhD degree. The faculty published 6 papers. The department proposes to establish an English Language lab. It also wants the relevant software and additional faculty positions. The department wants to offer foreign language courses.

### **Observations & Recommendations**

- Given the large number of students, some additional faculty positions need to be considered positively.
- An English Language Lab with the necessary software is an essential requirement for RGUKT. Action is needed to send at least 4 to 5 faculty members for training to EFLU, Hyderabad.
- The entire faculty may be motivated to do a PG Diploma course in English teaching being offered by EFLU as a full-time and part-time course.
- The faculty needs to evolve strategies for improving the English vocabulary and communication skills of students as well as of the faculty of non-English departments.
- When an English Language Lab is established as a learning resource for the students and the faculty as well, adequate training needs to be provided to the English faculty in imparting instruction making use of the lab.

### **DEPARTMENT OF MATHEMATICS**

The Department of Mathematics offers courses in PUC1,PUC2 and E1 for a total student strength of 3433. The faculty strength is 22 – 2 Assistant Professors, 13 Mentors and 7 Guest Faculty, out of whom 4 possess Ph.D., degree. The Teacher-Student ratio is 1:156. The faculty have published 55 papers. The department conducted open talks for new batches, created awareness on the profiles of famous Mathematicians and arranged special lectures by eminent academicians from other Universities. The department wants to offer B.Sc., and M.Sc., courses in Mathematics.

### **Observations & Recommendations**

- The proposal of the department to offer B.Sc., and M.Sc., course in Mathematics may not be considered in view of the main focus on technology at RGUKT.
- The faculty may take up interesting Mathematical programmes, both for student and faculty, like Maths quiz, puzzles, fuzzy Math, fun games with Mathematics, etc.

#### **DEPARTMENT OF TELUGU**

The Department of Telugu offers courses for PUC1 and PUC2 (compulsory), E3 and E4 (only as minor course) and handles a student strength of 2269. Out of this in E3 and E4, there are only 7 students. There are 7 faculty members and five of them possess the Ph.D degree. The department has undertaken a funded Project sanctioned by RGUKT with a nominal grant of Rs.15,000/- for a study of 'Rayalaseema Tholubommalaata – Pariseelana' in 2019. The faculty have published 7 books and 95 research papers. The Department also bagged 7 awards.

#### **Observations & Recommendations**

- E3 and E4 students are by and large not opting for Telugu as a minor subject. The faculty may look into the reasons for this and try to motivate more students to opt for Telugu as a Minor.
- Occasional Folklore programmes on the campus may lead to creating interest among the students in Telugu as a minor course.
- The faculty may design specific programmes for imparting moral and social values among the students and launch them.

#### **DEPARTMENT OF BIOLOGY**

The Department of Biology consists of 6 faculty members, all of them as Mentors. 3 of them possess the Ph.D. degree. The faculty have 14 publications and 1 book to their credit. The department has one Technical Assistant. Presently Biology is as an optional course. None of the students opted for Biology as an optional subject, with the result that the department does not have any students. Earlier Bio-technology, Plant Genomics, and Bio-Chemical Engineering were

offered as Minor courses. The department will have fruitful existence if these Minors are revived.

### **Observations & Recommendations**

- RGUKT may consider offering B.Tech., in Bio-technology in line with its objectives as stated in the Act. It is worth mentioning that IITs do offer Biology related courses like Bio-Engineering, Bioinformatics and Biotechnology. This will definitely add to the list of additional courses in tune with the objectives of the University. In the meanwhile, the faculty may be encouraged to take up research. They may also be involved in University administrative work and other relevant social services like plantation and bio-diversity.

### **DEPARTMENT OF INFORMATION TECHNOLOGY**

The Department of Information Technology offers courses to PUC1 and PUC2 and its student strength is 2208. The faculty strength consists of 7 Mentors. All the teachers joined the University in August 2008. These teachers are actively engaged in clarifying the doubts of students during night study hours. The Teacher – Student ratio is 1:315. The department follows IT enabled teaching- learning process. The department proposes to conduct workshops on Latex tool and on Python programming language.

### **Observations/Recommendations**

- The request of the Department for a few desk-top computers to demonstrate to the students the processes of assembling and disassembling of computers may be considered positively.

### **FEEDBACK FROM THE STUDENTS OF RGUKT, RK VALLEY**

Interactions with the representative cross-section of students from PUC1 to E4 gave the Committee the impression that students at the RK Valley campus are a dissatisfied lot. Their feedback is as follows:

- They feel that their genuine problems are not readily redressed. Complaints made are of no use. A systematized online complaint redressing mechanism needs to be devised.
- They want the academic curriculum notified and adhered to and the syllabus is to be covered as per the expected schedule.
- They want classes to be held as per the notified time-table.
- According to them, non-core syllabus in English is not being covered.
- The Central Library consists of more number of volumes, but less number of titles.
- Some times as many as three Assessment Tests are conducted on the same day.
- Going from the campus at the time of vacation and returning to the University after completion of vacation is a difficult task due to the location of the campus at a long distance either to the bus station or the railway station.
- Public transport is not available on the campus and ride by a shared auto is risky. Students want special arrangement for public transport and prefer to have the University's own transport system to help them.
- The Committee asked the students to identify the best 5 positive issues on life in the university and also list out 5 negative things on the campus life. The consensus is as follows.
- Positive issues – 1. Campus environment – spacious, greenery all around, good ambience; 2. Good Infrastructure – class rooms, labs, sports ground etc.; 3. Faculty – Many of them gave 6 marks out of 10 for faculty performance; 4. Good and cordial relation amongst the students; 5. Conduct of techno-cultural activities.

- Negative issues – 1. Non-responsive administration at all levels – AO, Dean (Academic), Warden, Dean (Students Welfare), Care-takers; 2. Uncomfortable and unsuitable examination schedule; 3. Poor quality of hostel life and low quality of food; 4. bad maintenance of drains / wash rooms / toilets; 5. No practical exposure; 6. Inadequate placements in many departments except CSE.

## **Co-Curricular Activities & Student Support Services**

The aim of the RGUKT, according to its founding fathers, is to make the students' learning holistic and imbued with human values. Apart from the curriculum, students are expected to involve themselves in one or more co-curricular activities, sometimes as part of their minor course. The various co-curricular activities, apart from the occasional Tech Fests, cultural events, are as follows:

### **SPORTS & YOGA**

The campus consists two huge play grounds, offering ample facility for any number of students to participate in outdoor events. The sports activity is supervised by a Physical Director, who is also designated recently as the Secretary of the University Sports Board, the first meeting of which was held on 10-12-2019. She has been an Olympian with many medals and distinctions to her credit. She got registered for the Ph.D., programme. She is assisted by 2 other Physical Directors, whose are M.P.Ed., qualified. The department could motivate may students in many sports to participate at Zonal level and National level competitions organized by the Association of Indian Universities. The University has the distinction of as many as 800 RK Valley students participating in different tournaments during the 2017-18 alone. The students secured 15 gold medals in floor ball championship. Under-19 boys bagged 12 bronze medals at the State level in floor ball competition. There were many achievements in kho-kho, cricket, hockey, tennikoit, throw ball, volley ball, hand ball, riffle shootings. The University was host to many sports events including disabled cricket nationals. The Student Activity Centre is nearing construction where excellent infrastructure for in-door games and yoga and meditation are being created.



## **Observations & Recommendations**

- The Committee is happy to see the active participation of students in several games and sports activities and it had the pleasure of noting their accomplishments.
- It is a common scene so pleasant to watch thousands of students every evening in the play ground.
- RGUKT, RK Valley has a good potential in sports and games and should work for participation in international sports events.
- Since most of the students are from rural areas, it will also be in the fitness of things to organize rural sports as a special sports event at RGUKT, RK Valley.
- Yoga practice will surely pickup once the Yoga Centre is commissioned. Presently one Yoga Instructor is involved in yoga training for about 200 students in the open air during 5.30 and 7.30 both in the morning and evenings.

## **NSS**

RGUKT, RK Valley was sanctioned 5 NSS units in 2011 and it is enhanced to 10 units in 2016, with a total of 1000 NSS volunteers. A Programme Co-ordinator assisted by 10 Programme Officers are engaged in NSS activities, utilizing the grants allocated and performing activities as per the schedule. They have adopted nearby villages and are creating awareness on social issues, organizing health and blood donation camps and special camps. They are also involved in campus plantation.

## **Observations & Recommendations**

- With a 1000-strong NSS contingent, RGUKT – RK Valley has excellent potential for taking up mega social service events in the surrounding areas contributing to institutional visibility in the discharge of social responsibility.

- When the Committee suggested having an exclusive ‘Swatch Bharat’ mission unit on the campus to take care of general maintenance of the campus, the NSS Officers responded positively.
- They are also ready to collaborate with the hospital in organizing ‘First Aid’ training to the faculty and students.
- The land available for the campus is large enough to allot a few acres for a kitchen garden, flower garden and a fruit garden to be taken care by NSS units with skeleton gardening staff.
- RGUKT, RK Valley may also try to have more NCC units for the benefit of the students and the country.

#### **THE HOSPITAL**

- RGUKT, RK Valley has an excellent hospital, spacious enough with all necessary provisions for OP, in-patient wards, separately for men and women, clinical test labs, pharmaceutical wing, emergency wing, etc. The hospital has 2 male and 2 female qualified Medical Officers with 7 Staff Nurses, 1 ANM, 2 Lab Technicians and 2 Pharmacists. The hospital has one big and one small ambulance. A specialist in Psychology and a Dermatologist offer consultancy once a week. A faculty member is also supervising the activities of the hospital as additional duty.

#### **Observations & Recommendations**

- Interactions with faculty and students testify that they are happy with the services of the hospital.
- Consultations once a week by specialists in Orthopedics, Dermatology, and Dentistry may be arranged to add value to services rendered by the hospital.
- The hospital doctors may explore the possibility of organizing ‘First Aid’ training to the faculty, NSS volunteers and to all intending students. The NSS Officers indicated their participation in and active collaboration with such type of activity.

- The starting of a Homeopathic Clinic, which does not cost much, may be experimented with.

### **SHOPPING COMPLEX**

RGUKT, RK Valley has a book store, a provisions store and a food court useful for the Institute community. The food court has also opened an outlet in the hostel for boys. While price list is displayed in the outlet in the hostel, no such list is displayed at the main food court. The general ambience and up-keep of the food court are not up to the mark. The cleanliness of the premises must be ensured.

### **Observation & Recommendations**

- Dustbins may be kept at different places near and within the food court.
- Price list should be displayed.
- A small committee with faculty and student representatives may be constituted to monitor the delivery of services at the food court.

### **Performing Arts**

RGUKT, RK Valley has a performing arts centre with mrudangam and dance activities offered for the students. The centre has one Vocal Trainer, one Academic Consultant for mrudangam with MA qualification and one Kuchipudi dance Teacher with a diploma in Kuchipudi. Nearly 200 students take part in these activities as a minor course.

### **Auxiliary Services**

The institute has a branch of State Bank of India, a Sub-Post Office and a Police Station on the campus.

### **HOSTEL FACILITIES**

## **Boys Hostels**

In a residential university, hostels are an important facility. There are two boys hostels each accommodating 1,200 students and two girls hostels accommodating 2,067 in one and 1,824 in another. The hostels are named after the rivers of the region.

Penna Vasathi Gruhamu is in four floors and in each floor there are 50 rooms. In addition there are 24 rooms with attached wash rooms where the Ongole faculty are accommodated. Papaghi Vasathi Gruhamu has a similar structure but with each room divided into two, and it accommodates 1,200 students. The hostels are under CCTV surveillance. There are two Caretakers for each hostel and these Caretakers are not available after 9 PM. There is a canteen run by the Food Court occupying the central area of the ground floor of Penna Vasathi Gruhamu. Each of the rooms has 6 occupants. The rooms have sufficient ventilation but the almarah space is not shuttered. There is no provision in the rooms for pegs or frames for clothes hanging. Every student is provided with a cot and a bed and a blanket and a pillow. In Papagni Vasathi Gruhamu since each room is divided into two, there are three occupants per room. E2 students of Ongole are also accommodated in this hostel. There are water coolers one in each floor connected to the centralized RO system.

The Committee visited the Messes also during its visit to the hostels. There are four student mess coordinators and two faculty mess coordinators. Each of the dining halls accommodates about 250 students. The Kitchen is well equipped but requires better upkeep.

## **Observations and Recommendations**

- The Committee visited the rooms in the hostel, interacted with the students, and went round the whole hostel complex to examine the facilities, sanitation, and aesthetic aspects.
  
- There is a large inner quadrangle for both Penna and Papaghi where tree planting can be done. In addition volleyball and badminton courts can also be laid and maintained by the Physical Education department.

- The wash areas in the hostel premises needs to be kept clean and the drains checked for clogging from time to time. The Committee found this space requires more frequent cleaning up. Constant vigil on the upkeep and cleanliness of the surroundings of the hostels is necessary.
- The Food Court in the central space of the hostels needs to be shifted from there immediately in view of the safety and aesthetic aspects, both.
- The Committee noticed that in Penna in Room Number G-47, the entire door frame is termite-affected.
- At one of the entry points at Penna, the tube light is seen hanging from its fixture. In spite of a complaint lodged by the students 15 days ago, the maintenance staff have not attended to setting it right.
- When the Committee visited the Messes, it found that huge kitchen vessels, part of the steam boiling system which are in disuse, have not been disposed of / consigned to a designated waste material dump yard.
- In Mess-1 used by P1, P2, and E1 students, the hand wash area is unclean. Similarly, behind the kitchen area there is drain which is clogged and is not cleared.
- The Committee is of the opinion that in view of the large occupancy of hostels, electrical, plumbing, personnel should make frequent visits to the hostels and set right the defects in time.
- One of the reading rooms may be converted into a Recreation Room.
- Online registers marking clock-in time and clock-out time should be developed and opened for the services staff.

### **Girls Hostels**

There are two girls hostels, Kundu and Chitravathi. Kundu accommodates 2,067 girls and Chitravathi 1,824. In front of Kundu, 2 CCTV cameras were installed recently. There is a full time Warden for the hostels who is available in the hostels between 9 AM to 5 PM. In view of the large number of girls in the hostels, the drain

pipes get clogged from time to time and measures are taken to clear the drains, rather than prevent clogging. There are four security staff for each hostel and each one of them works 8 hours a day. Till 6 months ago, the Warden, Deputy Warden were from the faculty. Now one full time Warden takes care of the entire responsibility.

### **Observations and Recommendations**

- A solution is to be found to frequent clogging of the drains in the Girl's hostels.
- Both the Girls' hostels may be kept under wider CCTV surveillance.
- Girl students have informed the Committee that there is a need for more drinking water dispensers in the common areas.
- The inner quadrangle may have a better aesthetic appeal with clothes lines for drying garments, tree plantation, and tennikoit courts.
- The incinerator in the girls' hostel is not in use because of the suffocation the incineration process causes. It may be installed at an appropriate place which provides for free flow of air.
- A visitors' room in the outer yard of the Girls' Hostel complex may be constructed.
- The Girls' Hostel areas need to be fenced properly for additional safety.

### **Overall recommendations for both the hostels:**

- The Committee is of the opinion that there should a resident Deputy Warden taking care of each floor of the hostel and a Home Room Tutor for each hostel. The Home Room Tutor and Deputy Warden should be from among the faculty and they should help effective management of student problems, maintenance issues etc., in addition to offering counseling to students when required.

## **THE FINANCE OFFICE**

The AP Act No.18 of 2008 stated that the Finance Officer shall be appointed by the Executive Committee (EC) for a term of three years to exercise general supervision over the fund of the Institute and perform all financial functions assigned by the EC. As per the Act, the Finance Officer shall:

- Hold and manage the property and investments of the Institute including trust and endowed property.
- Ensure that the limits fixed by the EC for recurring and non-recurring expenditure for a year are not exceeded and that all money is expended on the purpose for which it is granted or allotted.
- Be responsible for the preparation of the annual accounts and the budget of the constituent institute and for their presentation to the EC.
- Arrange for the internal audit of the accounts annually by a Chartered Accountant.
- Keep a constant watch on the state of the cash and bank balances and on the state of the investments.
- Watch the progress of the collection of revenue and advise on the methods of collection employed.
- Ensure that the register of buildings, land, furniture and equipment are maintained up-to-date and that stock-checking is conducted, of equipment and other consumable materials in all offices, special centers, and specialized laboratories.

## **Observations & Recommendations**

The Committee, after visiting all the four RGUKT institutes at Nuzvid, RK Valley, Ongole and Srikakulam and after interacting with the teachers who are designated as Finance Officers and the other supporting staff working under them, offers the following observations.

- Before bifurcation of Andhra Pradesh in 2014, all financial matters relating to the then two Institutes Nuzvid and RK Valley, were looked after by the Finance Officer/ Person in-Charge at the Central Office, Hyderabad. It is understood that all the bills relating to construction, equipment purchases, mess payments and other major items of expenditure were processed for payment at the Central Office level itself. The vouchers concerned are not available now with the Institutes in AP.
- The above procedure resulted in several pending payments for equipment installed /to be installed at Institute level. Some items of equipments were delivered at the Institutes but were not even opened and kept in some of the corridors of the buildings at the Institutes. The Committee's interaction with the faculty reveals that they are useful and costly equipment but not installed by the suppliers for want of final payment. As on this day, the acquisition process of these sophisticated items of lab equipment lying unutilized both at Nuzvid and RK Valley has not been completed. For example, washing machine equipment costing a few crores, with buildings constructed to house it, is not put to use, which is a really useful facility for the campus community.
- The CAG audit report raised some objections and communicated the same to the Directors of the Institutes in October, 2019 and as on this day clarification on objection could not be communicated to the authority concerned.
- All the institutes have designated senior teachers at the level of Assistant Professor as Finance Officers. Some of them are staff on contract basis. These officers are supported by outsourced staff. There are separate Finance Officers appointed for temporary academic and boarding arrangements of the new Institutes – Ongole and Srikakulam. They are also temporary faculty. For example, there are separate Officers from among the faculty of the Ongole Institute designated as Finance Officer, Controller of Examinations, Dean (Academic) and Dean (Student welfare), Associate Deans/Additional Controller of Exams for the students and faculty of Ongole at RK Valley. The Committee feels that this type of arrangement is unnecessary for finance, examinations, academics, and student welfare.



- It is heartening to note that the current administration has taken a decision to entrust the Director, Nuzvid/RK Valley to also take care Ongole campus at RK Valley/Srikakulam Campus at Nuzvid respectively.
- RGUKT is a unique University where the fees is not substantial and is a mere Rs.36,000/- per annum for PUC1 and PUC2; and Rs.40,000/- per annum for E1, E2, E3 and E4. The University came into existence with a welfare objective of providing almost free education to the rural meritorious students. The University provides free boarding and lodging, supplies uniforms along with shoes, cots, beds, pillows, bed spreads and even a laptop for use during the entire period of stay of each student for six years. The Government is also supposed to meet all infrastructure arrangements, faculty payments, development expenditure and even maintenance expenditure. Even in respect of the fees, the government has extended fee reimbursement scheme to the weaker section students of RGUKT and most of the students do not pay the fees. But fee reimbursements are delayed.
- It is understood that all the salary payments from 1<sup>st</sup> March 2020 are being made directly through the Treasury, debiting to the University budget allocation.
- The per capita student expenditure per year, probably for all the Institutes, is estimated as detailed below:

Mess charges	: Rs.29,000/-
Basic amenities	: Rs. 4,500/-
Laptop	: Rs. 6,400/-
Electricity charges	: Rs. 8,300/-
Hostel & other maintenance	: Rs.13,000/-
Internet charges	: Rs. 1,700/-
Examinations	: Rs. 3,300/-
Faculty salaries	: Rs.27,000/-
Total	: Rs.93,200/-

- It is quite likely that with rationalization of faculty structures, faculty salaries will increase and a 10% annual increase has also to be kept in mind.

- The present cap provision of Rs. 30,000/- per year per faculty for faculty development programme (FDP) for attending National conferences, workshops, seminars, training programmes, up gradation of qualifications etc. is an excellent initiative of the RGUKT. It is also understood that the University has made specific budgetary provision in this regard along with the facility of a cap provision for International conferences etc.
- The present imprest provision of Rs.3,000/- is felt inadequate by all the stakeholders and by this Committee also. It is recommended that the limits be raised to Rs. 10,000/- in respect of all academic departments and to Rs. 30,000/- for all maintenance departments, including Guest House, Hospital, Campus Engineering departments etc., subject to the fulfillment of applicable norms.
- The Heads of the departments may be authorized to open savings Bank accounts with the local campus bank branch and operate these accounts.

#### **THE EXAMINATION WING AT RGUKT**

The Examination branch is headed at each of the four Institutes of the University by a member of the faculty, generally of the rank of Assistant Professor. In view of the shortage of staff in all the four Institutes, an Assistant Professor on contract basis is also considered for appointment. The person appointed is designated as Controller of Examinations, with the duration of appointment fixed by the University. The Controller is assisted by 2 or 3 Associate Controllers of Examinations. The functions are so divided that PUC1 and PUC2 are taken care of by one Associate Controller, E1 and E2 by a second person and E3 and E4 by a third person. The examination dates are fixed in advance by the respective Institutes. The consultative process at work is not well defined in the matter of fixing of examination dates. The dates of the examinations are communicated to the candidates through emails. Question papers are set by the faculty internally for each mid-term and end term test. The question papers set by the examiners, when they are received by the Controller of Examinations, are scrutinized for conformity

with the prescribed pattern. Since the teacher who teaches the subject sets the paper and since many teachers are not very experienced, examining the question of the standard of question paper may be necessary. But there is no prescribed procedure for this. Most of the mid-term tests are objective type and the students answer the question papers using their laptops. There is no requirement of the student having to download a prescribed answer sheet. Where descriptive answers are to be typed on the laptop, occasional cases have been reported to the Controller of Examinations of suspected malpractices in the form of the use of cut, copy and paste technique. The entire process of the conduct of the examination is the responsibility of the Controller of Examinations, unlike in traditional Universities. Valuation is done by the internal examiners and award sheets are submitted by them to the Controller of Examinations. The University follows the grading pattern. It is relative cum absolute grading pattern where up to 5% failure rate was accommodated till recently. Student complained about this system because in relative grading in the absence of normalization, they were awarded grades lower than the ones for the marks scored. A pattern of normalization was not appropriately devised leading to confusion. The Committee came to know that from this semester onwards the pattern has changed. Relatively few cases of recounting of marks have been received by the respective institutes. While recounting is permitted, there is no provision for revaluation of answer scripts.

### **Observations & Recommendations**

The Committee feels that in order to avoid duplication and to strengthen the examination system, a Dean of Examinations located at the headquarters of the University may be the overall the in-charge of the Examination processes of the University.

- The Dean, Examinations, should be responsible for setting of question papers and the respective Associate Deans (Examinations) at the Institutes will administer the question papers, conduct the examinations with the support of the Dean (Academic), arrange evaluation at the respective Institutes, and send the award sheets to the Dean, Examinations at the headquarters. The office of the Dean, Examinations should be the repository of all examination data, excluding the answer script data to be safely preserved at the respective Institutes.

- For tests carrying 16 marks, the ratio of descriptive: objective questions is 42 : 18. For a question paper carrying 100 marks, the ratio is 72 : 28.
- For question paper setting and dispatch of question paper to the office of the Dean, Examinations, encryption modalities have been adhered to.
- The Committee suggests that every question paper should carry an alpha numeric code and the key to the alpha numeric code should be in the custody of the Dean, Examinations.
- It has been brought to the notice of the Committee, in the student interaction session, that on certain occasions a sequence of three mid-term tests, each of 45 min. duration, had to be undergone by them. This is burdensome for the students and so steps need to be taken for a systematic pacing of the examinations.
- The Committee has noticed that no Complaints and Suggestion Box is available at the examination branch for receiving student complaints and suggestions. This facility need to be made available online and in material form.
- Software up gradation is an important feature of any development activity. The examination wing may be permitted to acquire the latest software for examination related functions.
- The award sheets and degree certificates developed by the Dean, Examinations should contain certified bench marking criteria for international validity.

## **ONGOLE AT RK VALLEY**

### **Academic and Financial Audit Report**

While PUC1 is offered at the newly created temporary premises at Ongole, PUC-2, B.Tech., 1<sup>st</sup>, 2<sup>nd</sup> courses are offered at the RK Valley campus. PUC2 classes are held in the RK Valley campus in the temporary premises created for the RK Valley campus at the time of the commencement of the University in 2008.

### **MATHEMATICS, BASIC SCIENCES AND LANGUAGES**

The student intake in PUC2 is 913, out of which girl students are 584 in number. The departments of Mathematics, Physics, Chemistry, Biological Science, English and Telugu function from the campus located in the old temporary premises. In the Mathematics department there are five Assistant Professors appointed on contract basis and eleven Guest faculty. All the five Associate

Professors on contract have the Ph.D., degree and a majority of them are specialized in Fluid Mechanics.

In the Department of Physics, there are 13 faculty with eleven of them having the Ph.D., degree. Among these thirteen, three are guest faculty. The staff have worked in areas of Nano materials and such other fields which have ample scope for project level and advanced research. The Department of Chemistry consists of ten faculty of whom five are Assistant Professors on contract and the remaining five are guest faculty. Of these, eight have the Ph.D., degree. The department of Biology consists of two members of the faculty. The department of English consists of four Assistant Professors and six guest faculty. And the department of Telugu consists of four Assistant Professors, all with the Ph.D., degree.

### **Engineering Disciplines**

The Civil Engineering Department offers instruction to 391 E1 and E2 students. The department consists of five Assistant Professors on contract and two guest faculty. In Civil Engineering, the teacher student ratio is 1:56.

At present the department makes use of the laboratory facilities of the RK Valley campus. When it shifts to the Ongole Campus, nine class rooms, laboratory facilities, seminar halls, lecture halls, etc., have to be created. Apart from the equipment necessary for the laboratories, licensed software for AutoCAD, Staadpro, E-tabs, Revit have to be provided.

The Department of Electronics and Communications Engineering caters to 627 students. The faculty consists of ten Assistant Professors on contract and thirteen guest faculty. The department has pursued areas such as Polytronics and conducted seminars on IoT and Innowiz. In the ESE branch where there are 23 faculty, the teacher student ratio is 1:27 and the faculty have 23 publications.

The Computer Science and Engineering Department consists of ten Assistant Professors on contract and ten Guest faculty and two IT Mentors. The department proposes to offer courses in Augmented Reality and Virtual Reality. It has exposed the students to knowledge of robotics and IoT through workshops and has also trained students in mobile application development using Android Studio. In the

Department of CSE, there are 22 faculty and the teacher student ratio is 1:24. The faculty have 26 publications to their credit.

The Materials and Metallurgical Department has a student strength of 57 in the E1 and E2 classes put together. The department consists of three Assistant Professors and one guest faculty. One of the Assistant Professors is pursuing his Ph.D.

In Mechanical, there are seven faculty each and the teacher student ratio is 1:40. In Chemical Engineering, there are four faculty and one of them has the PhD degree. The teacher student ratio here is 1:56. Mathematics, which has sixteen faculty has a teacher student ratio of 1:180, which is rather high. The staff have about 40 publications in all. The Chemistry faculty have 22 publications and with a strength of 10, their teacher student ratio is 1:25. The Physics department with 13 faculty has the highest number of PhDs. Eleven of them are PhD degree holders. MME has four faculty and with one of them having the PhD degree their teacher student ratio is 1:14. In Telugu all four faculty have the PhD degree and they have published 42 papers. English has ten faculty and for English and Telugu the teacher student ratio is 1:25.

Teaching-learning in the non-core subjects follows partly the conventional mode and partly the ICT mode. ICT is used to a limited extent only, and it has not percolated to learning by doing. Since the Ongole campus has been functioning at RK Valley for the past three years, basic infrastructure alone has been created here. For the Engineering branches the reliance is on RK Valley campus.

The library is headed by an Assistant Librarian who is a Ph.D. degree holder in the subject. He is assisted by one Assistant Librarian who is also a Ph.D. degree holder and one Guest faculty member who is NET qualified and working for his Ph.D. The library has a collection of 18,915 books, with just 578 titles. It subscribes to 31 magazines. While the accession register has been computerized, internet journal subscription has not been taken up yet. The library has adopted KOHA open source software for minimal functions.

The NSS has five units and has adopted a village nearby and conducts plantation, clean the campus and other programs.

The Ongole campus has appointed Physical Directors who take care the games and sports activities of the students but the play ground and other facilities are shared with the main campus. The department has acquired some sports materials for the use of the students.

### **Observations & Recommendations**

- Laboratories for PUC2 students are available in the temporary premises created form the Ongole students.
- There are two hostels, one for men students and one for girls students in the premises. Given the space constraints, 27 girls are accommodated in one hall. In the Men’s Hostel there are 12 to a hall.
- The faculty in Basic Sciences and Telugu are well qualified and have the potential to do active research.
- In future when the Ongole campus materializes the faculty can launch an interdisciplinary research between Basic Science and Engineering disciplines making use of the sophisticated research instruments available at RK Valley.
- Over all, taking the basic sciences, languages and the Engineering disciplines into consideration, 25% of the faculty are Ph.D. qualified. One member of the staff in MME and one in Chemical Engineering have the Ph.D degree. The present faculty publication ratio is 1:1.3.
- At present there is no internet connectivity in the campus.
- Since students would be entering E3 at the commencement of next year, sufficient planning for internships has to be made in advance.
- In the interaction with the students it was brought to the notice of the Committee that complaint redressal takes time. Student relationships and student faculty relationships are good, but class room interaction between the faculty and students is inadequate.



- From the students' point of view, coordination with the RK Valley Campus, laboratories and staff can be better negotiated for more effective utilization of the laboratories.
- A central placement cell with separate discipline-wise placement cells for each of the Engineering disciplines needs to be created.
- The department of ECE has worked on a project and developed a water mechanized bike. It also conducted a workshop on Polytronics. The areas of knowledge which the department is pursuing may need collaboration with ISRO, DRDO, and other agencies..
- The department of Computer Science and Engineering may be supplied with licensed software relating to MATLab, Rational Rose, Keil and such other areas.
- The Engineering disciplines do not as yet have minimal infrastructure.
- Internet access to books and journals through the library needs to be made available at the earliest.
- The library needs to be automated and the hardware and software necessary for it need to be acquired at the earliest.

### **Student Feedback**

The Committee had an interactive session with the students of P2, E1 and E2 of RGUKT, Ongole stationed at RK Valley. They compare themselves with the main RK Valley students in terms of faculty, facilities, and the general environment and feel dissatisfied with the make shift. They have a feeling that they are treated as second rate students on the campus. They are at present situated in the initially constructed premises of RK Valley, which was used by the first few batches of RK Valley students. Had they been at Ongole, they would not have enjoyed the present facilities. The Committee tried to convince these students that they were the luckiest lot to find a place in the prestigious and beautiful RK Valley campus.

## Observations & Recommendations

- The Committee recommends a complaint and suggestion box to be placed in the premises of the Institute and the Hostels. It may be opened every 15 days in the presence of a specially constituted committee of 2 faculty members and 2 student representatives of E1 and E2. The suggestions and complaints found in the box may be recorded in a specially maintained register and action taken report may be notified.
- An online complaint box and redressing mechanism should be devised for all the campuses at the earliest.
- These students do not have internet. This may be immediately looked into as a matter of urgency.
- The students are worried about the non-receipt of AICTE approval for the RGUKT-Ongole courses and the matter needs to be pursued.
- Internships and placements need to be improved. Since classes for E3 will commence in the next academic year, preparation for internships and collaboration should begin on a priority basis.
- Students want the curriculum for the entire course to be notified at the beginning of the first year itself. They are worried about the frequent changes made in the curriculum.
- The hostels also are overcrowded. 25 to 30 students are placed in one room in the Girls' Hostel and there is no reading space for them in that room. No care takers have been placed in charge. There are leakages in the ceilings and whenever there is rain, students have been experiencing problems. Toilet maintenance also needs to be improved.
- When students were asked to list five best positive things and five negative issues on their campus life, the responses were as follows:

### Positive

- Natural environment
- Infrastructure of the campus

- General freedom
- Security
- Good student-student relationships

### **Negative**

- Faculty not adequate in terms of efficiency and seniority
- No adequate labs
- No interaction with the faculty
- Non-responsive administration
- Cleanliness of the washrooms

## **ONGOLE CAMPUS**

The RGUKT Campus, Ongole has been functioning from its present premises since 2,020. Classes are held for the PUC 1 and residential accommodation for 1,102 students in the PUC 1 class out of whom 712 are girls students has also been provided on the campus. The boys : girls ratio is 35:65. The faculty strength is 48 and in addition there is classical musical instructor who offers a Minor course in music in tune with the institutional philosophy of imparting holistic education by training students in multi-disciplinary skills.

In this well established, though temporary and neat premises with good ambience and a wide central quadrangle, where volley ball, khabbadi, shuttle courts are laid, there is provision for class rooms, laboratories, girls hostel, boys hostel, quarters for the staff, canteen, health centre, library and all essential features necessary for residential ambience.

The Head of this campus, the OSD / Director (i/c) was recently appointed. He is assisted in academic matters by the Additional Dean, Academic (I/c). There is also the Additional Controller of Examinations (in-charge), Additional Dean, Student Welfare (in-charge), assisted by Wardens, Deputy Wardens, Mess in-

charges and Mess Coordinators. Similarly, the Additional Dean Academic (I/c) is assisted by a faculty Coordinator and class teachers, who identify the requirements of individual classes, thereby monitoring student activity in the class room. There is a full-pledged guest house where 4 fully furnished rooms are available.

The Health Centre consists of a resident Medical Officer, assisted by a Pharmacist and 2 Nursing Staff. 50 to 60 students visit the health centre every day and receive medical help. Weekly visits are made by a dermatologist. The institute has employed 3 Junior Assistants, 7 Data Entry Operators, 3 Lab Assistants, 2 Electricians and an Electrical Helper, 7 Attenders, 1 Guest house in-charge and a Cook and Watchman for Guest house. There are 51 Security staff and 24 House Keeping and Gardening Staff.

The Dean, Academic conducts meetings of faculty coordinators, mess, library and other committee meetings. Advisory Committee meetings are held at frequent intervals under the direction of OSD/Director (i/c). Apart from class room instructions and laboratory hours, there are designated study hours for the students between 8.00 pm and 10.00 pm every day for five days in the week. These study hours are conducted in the presence of the faculty, and the Dean, Academics, monitors the study hours. The faculty of various departments have also started remedial classes for the students by identifying them on the basis of their mid-semester examination performance.

At present there is no NSS unit as such but one of the teachers informed the Committee that he is qualified to be an NSS Coordinator and requested that a NSS unit be started soon in the institute.

The Committee interacted with the students and motivated them to utilize the facilities of this institution for shaping their careers. They expressed satisfaction with the facilities available for the students even in a make-shift premises.

The Committee interacted with the faculty after their PPT presentations. The Committee complimented the faculty on joining the institution and requested them to work in harmony with the institutional vision of transforming rural livelihoods and economy. The Committee noted the following from the presentations.

- Mathematics consists of 7 Assistant Professors on contract basis of whom 3 have the Ph.D. degree. One of them is NET qualified. Three more are working for their PhD. There are some staff whose specialization is Fluid Dynamics. This gives them an opportunity to work in inter-disciplinary areas, allied with Engineering.
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- The Department of Chemistry consists of 8 faculty of whom 2 are Guest Faculty. 6 of them have their Ph.D., degree while 2 of them have post-doctoral experience. 2 of the faculty are SET qualified. The faculty have 22 publications in total.
- The Department of Physics has 9 faculty of whom 8 have the Ph.D. degree. The ninth person is SET qualified.
- The Department of Telugu consists of 5 faculty, 3 of whom are Guest faculty. All of them have the Ph.D., degree.
- The Department of English consists of 2 Assistant Professors and 5 Guest faculty. One of them has Ph.D., degree.
- The newly created Library in the institute campus has about 9,339 books. It is heartening to note that there are 7,358 books issued to students. This is an indication of the frequency of the visits of the students to the Library. The Library subscribes to 13 magazines that give information to students on current affairs. There are 3 professional staff in the Library, 1 Assistant Librarian (Guest Faculty) and 2 Library Assistants (daily wages). The Assistant Librarian is a Ph.D. and NET-qualified and he has published over 10 articles.

### **Observations & Recommendations**

- The Committee compliments the RGUKT administration on a decent, aesthetically appealing infrastructure that has been created in this new premises which has been found congenial for the pursuit of technological education.

- It is heartening to note that remedial education has been given considerable attention and there is a prescribed time-table which the faculty follow and which is monitored at the higher level.
- The Committee feels that OHPs should be arranged in the class rooms on a high priority basis to provide for greater use of the ICT in the class room.
- The Committee felt happy to note that during the next academic year PUC1 and PUC2 would both be offered at Ongole and that plans for a larger premises where more faculty could be accommodated are in the offing.
- Many of the staff have publications to their credit and they must continue their research pursuits by active collaboration for the time being with their parent institutions.
- It will be beneficial for the students if a dentist, an ophthalmologist and a gynecologist too visit the health centre at least once a week for special consultation.
- The Medical Officer of the Health Centre may conduct weekly or fortnightly 'First Aid' education camps in the Institute.
- NSS and NCC units may be started as early as possible. Meanwhile, the social service oriented faculty may come forward to start a 'Swachh Bharat Mission' unit in the campus.
- Laptops with suitable configuration may be provided to the students on a priority basis along with uniforms and other material.
- Wi-Fi facility may be made available in the hostels for boys and girls as soon as possible.
- The laboratory requirements for the second year for the pursuit of projects, etc., may be planned from now on.

## **CONCLUSION**

The Committee expresses its regret that this Report could not be submitted earlier. The Committee visited the newly established temporary campus of RGUKT-Ongole in its conducive ambience on 16<sup>th</sup> and 17<sup>th</sup> March 2020. RGUKT has started offering instruction to PUC1 at this campus from this academic year. The visit to RGUKT-Srikakulam was due in the third week of March but meanwhile due to the spread of Covid-19 a lockdown was declared. The Committee waited for a sufficiently long period to visit the newly established RGUKT-Srikakulam Campus and hold interactions with the students and staff there. Since that may not be possible in the next couple of months, the Committee has finally decided to submit its Report.

The Committee expresses its great pleasure over its meeting with the Hon'ble Chancellor of the University when it made its first visit to the Nuzvid campus on 15<sup>th</sup> February 2020. He briefed the Committee on the development initiatives he has launched under his visionary leadership and his objective in getting this academic, administrative and financial audit of the University which has made rapid progress over the last twelve years as no other University has been able to do on this scale. An almost self-sufficient residential campus with enviable infrastructure has been created. And therefore, now is the time for a

comprehensive assessment of teaching and teacher quality, governance, the development of support systems for skill-oriented programmes to meet the changing patterns of job scenarios, add on courses, placements, entrepreneurship development and technology penetration in teaching and other areas necessary reach the goal towards quality assurance. The Committee heartily thanks the Hon'ble Chancellor for constituting this Committee and for enabling a smooth visit and fruitful interactions with the various constituents of the University.

At Nuzvid, RK Valley and Ongole, the Directors-in-Charge, Officers of the University and the Institutes, the faculty and the non-teaching staff of these campuses and those of the Srikakulam and Ongole campuses received the Committee with warmth, enabled purposive discussions based on the detailed

questionnaires that were given to them, and took the Committee round the various facilities of the respective Institutes. The interactions with the students were also very useful in the sense that they came forward with their frank assessments and their perspectives on their careers which is an important input for a Committee of this kind. The Committee expresses its sincere thankfulness to all these constituents for making their visit serve its intended purpose.



(V.BALAMOHANDAS)  
Chairman



(D.HARINARAYANA)  
Convener



(C.R.VISWESWARA RAO)  
Member



(K.T.RAMAKRISHNA REDDY)  
Member