

## Annexure IX Accreditors' Reports

Section 1: General	Information
1.1 Name and Address of the institution:	Jigme Namgyel Engineering College (JNEC), Dewathang, Samdrup Jongkhar, Bhutan
1.2 Year of establishment:	22 <sup>nd</sup> February, 1974
1.3 Current academic activities at the institution (Number):	
• Faculties /Schools:	
• Departments/Centres:	6
• Programmes/Courses offered:	8
• Permanent faculty members:	54
• Students:	861 (Male: 608; Female: 253)
1.4 Three major features in the institutional Context (As perceived by the accreditors):	<ul style="list-style-type: none"> <li>• Diverse programme in Applied Engineering including strong culture of hands on training,</li> <li>• Impressive inventory of valuable assets - lab equipment, workshop materials and teaching-learning resources,</li> <li>• Strong exchange programme with universities in Japan and Europe facilitates Faculty, Staff and Students to pursue further studies and short term trainings,</li> <li>• Dynamic leadership and effective management for institutional development including innovative practices to enhance spirit of Team-Work and democratic governance,</li> <li>• Physical infrastructures: academic, sports, residential including two newly constructed large hostels, and are optimally utilized.</li> </ul>
1.5 Date of visit:	November 13-16, 2017.
1.6 Composition of the accreditors which undertook the on-site visit:	
Chairperson- Accreditor	<b>Dr. Singye Namgyel</b>
Members- Accreditors	1. Mr. Meghraj Adhikari 2. Mr. M.N. Lamichaney 3. Mr. Phuntsho Namgyal
BAC Coordinator/QAAD officials	1. Mr. N.B. Raika 2. Mr. Tshewang Dorji

<b>Section 2: Criterion Wise Analysis</b>	<b>Observations (Strengths and/or Weaknesses on Key-Aspects)</b> <i>(Please limit to three major ones for each and use telegraphic language (It is not necessary to indicate all the three bullets each time; write only the relevant ones))</i>
<b>2.1 Curricular elements</b>	
2.1.1 Curriculum design and development	<ul style="list-style-type: none"> <li>• Has a vision and mission statements and the same is communicated to faculty, staff, students and stakeholders through RUB website, college website and other publications,</li> <li>• University provides guidelines and regulations for developing and designing curriculum,</li> <li>• College develops programmes, endorses by CAC, submits to APRC, then to PQC and validation process takes place before it is launched,</li> <li>• Conducts tracer study on a regular basis and facilitates programme review,</li> <li>• Feedback from alumni and stakeholders are used for curriculum design and development.</li> </ul>
2.1.2 Academic Flexibility	<ul style="list-style-type: none"> <li>• Offers choices of seven Diploma programmes and one Bachelors in Power Engineering, and diplomas are largely skills oriented,</li> <li>• Offers university modules: Academic Skills, Dzongkha Communication, Analytical Skills,</li> <li>• Students have options to study on self-financed mode, however, all other requirements and criteria remain same as the student on full government scholarship,</li> <li>• Offers elective subjects in two final semesters for degree and final semester for Diploma,</li> <li>• JNEC does not offer courses that allow twining/dual degree and mixed-mode of distance and conventional face-to-face teaching learning.</li> </ul>
2.1.3 Feedback on Curriculum	<ul style="list-style-type: none"> <li>• The feedback mechanism of the curriculum is inbuilt within the procedures for approving programmes - CAC, APRC, PQC, AB,</li> <li>• Formal mechanism of getting feedback from peer academics through external examiners, tracer studies, and comments/feedback are discussed and used for improvement - APMR, CAC,</li> <li>• Few new programmes were introduced during 2012-2015, and targets to launch three new programme (one each annually from 2018 to 2021 that are relevant and current to the market).</li> </ul>
2.1.4 Curriculum update	<ul style="list-style-type: none"> <li>• Following RUB regulation, programmes are updated periodically, four/five year cycle,</li> <li>• Feedback from staff, students, tracer studies, stakeholders are used to update and improve curriculum,</li> <li>• Faculty from other colleges/universities conduct peer review to develop new programmes,</li> <li>• Minor changes and updates to the curriculum are made using pertinent feedback from students and other sources following due internal procedures, while major changes are made through a large forum such as PQC, AB of the RUB.</li> </ul>
2.1.5 Catering to diverse needs	<ul style="list-style-type: none"> <li>• The college does not cater programmes/courses to differently-abled students as they are skills and laboratory based activities,</li> <li>• Extra time for coaching and remedial classes are arranged for slow learners and academically weak student either individually or groups, however, there</li> </ul>

	<p>is no established formal mechanism,</p> <ul style="list-style-type: none"> <li>• Gender sensitive issues are addressed- equal participation opportunity is provided to everyone, advocacy programmes are organised by student club, female provost take care of girl-students,</li> <li>• High performers are acknowledged with His Majesty's academic excellence certificate, and also acknowledgment from college, research centre is a platform for advanced learners to further hone their skills,</li> <li>• Repeated failures are counseled by Heads and Dean, Academic Affairs,</li> <li>• College commits to put the provisions - courses, facilities for differently-abled learners in place.</li> </ul>
2.1.6 Teaching-learning process	<ul style="list-style-type: none"> <li>• Follows a uniform format to prepare semester teaching plan, discusses in the committee, submits to PL and students are made aware in the beginning of the semester,</li> <li>• Teaching learning plans and other major activities are part of the Annual Academic Calendar that is printed and/or uploaded on website for the benefit of staff, students and other stakeholders,</li> <li>• Promotes student-centric learning by making faculty avail PgCHE and PgDHE; making digital/online resources available; making students carry out project works and making students do presentations,</li> <li>• To promote effective teaching-learning process college has put in place technology- digital library- EBSCO, DOAJ, ARDL, JSTOR, etc which can be accessed from JNEC website,</li> <li>• To expose faculty and students to advanced and current knowledge and skills College invites professors from other universities through visits and exchange programmes, eg. Sept 18-20, 2017 four professors from Wroclaw University of Science and Technology, Poland,</li> <li>• Faculty focuses on didactic and hands on teaching learning methods.</li> </ul>
2.1.7 Faculty recruitment	<ul style="list-style-type: none"> <li>• College follows RUB's Human Resource Rules and Regulations (RUBHRRR) and for Fixed Term Appointment (Chapter 5B of RUBHRRR),</li> <li>• Faculty recruitment is centrally coordinated by OVC based on the HR requisition submitted by college, following announcement that is normally twice a year (January and July),</li> <li>• Competence and effectiveness considered include subject knowledge, presentation skills, command on language, other managerial and innovative skills, aptitude for teaching, research skills, publications, in addition of highest degree earned,</li> <li>• Follows stringent set of procedures and demands comprehensive documentary records of academic transcripts,</li> <li>• Due weightage is given to experiences and performance of the selection interview that includes both written and viva,</li> <li>• Provision to recruit high quality faculty on fixed term appointment through DGPC/DHI support.</li> </ul>
2.1.8 Faculty quality	<ul style="list-style-type: none"> <li>• To recruit and retain quality faculty college as per RUBHRRR places faculty in attractive positions at entries, provides 15% University allowance, 10-20% teaching allowance, housing facilities, on campus recreational facilities and also lateral entry to higher positions,</li> </ul>

	<ul style="list-style-type: none"> <li>• Supports and facilitates long term studies and short term professional development programmes, gives fast track meritorious promotions, ensures job security,</li> <li>• To ensure faculty and staff quality college facilitated staff development programmes 87 times in the last four years in India, Thailand, Singapore, Europe, and Japan,</li> <li>• To recharge and ensure continuous growth of faculty college supports/ provides trainings, exchange programmes, study leave, research and publications in addition to conducive living conditions in the campus,</li> <li>• 31 staff received National Order of Merit and Civil Service Award in the last four/five years including one faculty receiving National Order of Merit in Academic Excellence,</li> <li>• Performance Management System in place, carried out rigorously to address the gaps and improve their performance.</li> </ul>
2.1.9 Evaluation process and reforms	<ul style="list-style-type: none"> <li>• Evaluation structure and processes are transparent, made available online, to make faculty and students aware of it,</li> <li>• Process in place for evaluation of teaching learning performance of faculty students, module tutor, supervisor, peers and subordinates,</li> <li>• Every module tutor prepares two sets of question papers with model answers, and moderated by two peers of the department,</li> <li>• Both Formative and Summative forms of evaluation are employed. Formative entails projects, discussion, presentation, assignments, while summative is test and semester end exams,</li> <li>• Results of past five years provided, and most programmes have 80% and above pass percentage. Spring Semester of 2017 has 8 modules with 100% pass, 8 modules with 90+% pass, one module has 88% pass (DIECE),</li> <li>• Student's grievances on the academic performance are addressed by appealing to PBE, CAC, and University Appeal Committee.</li> </ul>
<b>2.2 Research, Innovative practices and Institutional linkages</b>	
2.2.1 Promotion of Research	<ul style="list-style-type: none"> <li>• Has a College Research Committee (CRC) with TOR, Chaired by Dean of Research and Industrial Linkages (DRIL) and five senior faculty as members,</li> <li>• Has a nationally recognized research centre, "Centre for Appropriate Technology", plans to establish two more centres (i) Centre for Lighting and Energy Efficiency (LEES), (ii) Centre for Geospatial Research and Development (CGRD),</li> <li>• Organized capacity development to promote research skills such as training on Basic Research Methodology to all faculty members, workshop to final year students, use of softwares, etc,</li> <li>• To promote research college allocates Research Grant to faculty, adequate fund for Students Projects, organized "Inter-departmental Conference on the theme, Academic Excellence through Research and Innovation", June 2017, Joint Faculty Research Meet between JNEC and CST,</li> <li>• College secured Nu. 140,000/- from AURG and received a 3D Printer from Kansai University for research purposes,</li> <li>• College submitted 18 research projects and was granted 6 projects by RUB.</li> </ul>

2.2.2 Research and publication output	<ul style="list-style-type: none"> <li>• Solar dryer designed and developed in the college with SJI which was nationally replicated,</li> <li>• Rain water harvesting and waste segregation projects proving useful to local communities,</li> <li>• 29 papers published and 14 research findings to be published in JNEC Thruel Rig Sar Toed (Academic Excellence through Research and Innovation),</li> <li>• Organized International Conference on Education, Science and Technology Engg. and History and proceedings were published in special edition of Bhutan Journal of Research and Development (BJRD).</li> </ul>
2.2.3 Consultancy	<ul style="list-style-type: none"> <li>• College follows RUB policies regarding consultancy services,</li> <li>• College provides services for construction materials testing and on-site test, and Nu. 88,470/- generated in 2017 and Nu. 316,630/- over last 4 years,</li> <li>• College encourages faculty to conduct consultancy services and such activities are considered added advantage in their performance evaluation,</li> <li>• Faculties serve as experts in providing expert advice and consultation in the development, review and validation of curriculum for TVET, CST and REC etc.</li> <li>• Revenue generated from the consultancy services is shared among the University, College, and the individual Consultants (academics/staffs) as per the university regulations.</li> </ul>
2.2.4 Extension activities	<ul style="list-style-type: none"> <li>• College provides technical and mentorship services to local communities jointly with SJI,</li> <li>• Supported few sections of local community by constructing waste disposal bins, walking steps, and rainwater harvesting system,</li> <li>• Helping Hand and Rover Scout Clubs help local community on agricultural activities and the disadvantaged people in the community, the club also helps in the construction of houses for disadvantaged people.</li> <li>• There are also other activities frequently organized by waste management club including cleaning of surrounding towns of Dewathang and Samdrup Jongkhar,</li> <li>• One major extension service is the annual six-week OJT programme with financial support from the college,</li> <li>• Extension services also include students carrying out house wiring, civil construction works, and maintenance of household appliances during vacations.</li> </ul>
2.2.5 Collaborations and institutional linkages	<ul style="list-style-type: none"> <li>• JNEC signed 11 MoU including with Samdrup Jongkhar Initiative (SJI) for Better Community on 12th Oct 2016. College works closely with SJI to improve the living conditions of people in the Dzongkhag,</li> <li>• Field attachment for 2 faculty members with M/s Nakayama Ironworks Ltd. in Japan for 6 months,</li> <li>• A two-year EU Project titled 'Promoting Energy Efficient Lighting Education in Nepal and Bhutan (ELNAB)' in Oct 2016 with total fund of Euro 72,630/-</li> <li>• Projects have been put in place to facilitate faculty, staff and student mobility to universities in Greece, Germany, Poland, France, Romania and Italy through Erasmus+ Project;</li> </ul>

	<ul style="list-style-type: none"> <li>• Projects have been undertaken with the Waseda and Kansai Universities in Japan for student and staff exchange programme,</li> <li>• Faculty exposure trips to Singapore and Bangkok have been carried out including to Research Centre of Excellence, the Energy and Resources Institute (TERI) India.</li> </ul>
2.2.6 Innovative practices	<ul style="list-style-type: none"> <li>• Introduced interactive and rapport building activities such as Tea sessions, Staff Nite, Pot luck, Khadar ceremony etc.,</li> <li>• Two best practices are Informal Meeting of the Management and Transparency in the Management,</li> <li>• Solar dryer, rain water harvesting and Centre for Appropriate Technology,</li> <li>• Student residential buildings are named after the four Bhutanese mythological deities namely Jampel, Duckhor, Namsey and Zilnoen Khangzang Villages,</li> <li>• Altar room in the library provides psychological and emotional support especially during the exam times.</li> </ul>

### 2.3 Governance, Leadership and Management

2.3.1 Institutional vision and leadership	<ul style="list-style-type: none"> <li>• Has a stated vision to be, "A Premier Institute of applied engineering, management and technology towards developing highly competent and innovative technical personnel infused with values of GNI; the vision is aligned with the RUB vision and national policy on higher education,</li> <li>• Vision is supported by set of four mission statements, six core values and eight key aspirations,</li> <li>• The top management involves the key positions of the college in policy formulation and rest of the staff are made aware during planning; top management also promotes transparency by involving all levels of staff in decision making,</li> <li>• The leadership focuses the policy plans on all aspects of academic and administration,</li> <li>• The policy and plans focuses on the welfare of staff and students while also aligning with the overall university goals and plans.</li> </ul>
2.3.2 Organisational arrangements	<ul style="list-style-type: none"> <li>• Organizational arrangement of the institution encompasses two main wings of academic and administrative matters,</li> <li>• Main individual players of the college organization are President, Deans, Administrative Officer, Estate Manager, and recruitment of a Finance Officer is under process,</li> <li>• Main instruments of organizational structure are CMC, CAC assisted and implemented by various committees/teams including tender, HR, admission, research, programme, examinations, student discipline, residential, sports, and has a clear Organogram,</li> <li>• Ensures optimal utilization of available resources following university guidelines on resource allocation, and prioritizes on academic and research,</li> <li>• Decentralized and participative management is ensured through the principle of Transparency, Efficiency and Accountability and with ToR of committees and team.</li> </ul>
2.3.3 Strategy development	<ul style="list-style-type: none"> <li>• Academic quality policy of the college is directed and guided by RUB's Wheel of Academic Law,</li> </ul>

and deployment	<ul style="list-style-type: none"> <li>• Has Strategic Plan (2018-2030) some of which include enhancement of quality and relevance of programmes; research innovation and scholarship; promote GNH inspired environment; innovation and entrepreneurship; life-long learning; diversification of revenue streams,</li> <li>• Internal decision-making processes bestowed on the two main committees: CMC for management and CAC for academic matters,</li> <li>• Conducts frequent meetings to disseminate information and address issues and college staff mail is used as a tool,</li> <li>• Has a process in place to address grievances/complaints of staff and students. College analyzes the nature and degree of seriousness of the grievances and those requiring attention are forwarded to OVC,</li> <li>• Lab uniform revised to promote safety and dignity of labour.</li> </ul>
2.3.4 Human resource management	<ul style="list-style-type: none"> <li>• Encourages faculty and staff to look for professional development activities both within and outside the country and provides supports,</li> <li>• Strategies for faculty training and professional development include earmarking dedicated fund; faculty -exploring relevant courses and supporting with partial funding, etc,</li> <li>• Follows Performance Management System of RUB duly customized for the college,</li> <li>• Faculty and staff prepares annual targets as part of APA and rigorously monitored by line managers,</li> <li>• JNEC Staff Welfare Scheme supports staff and faculty in difficult times, and Nu. 222,025/- have been availed by beneficiaries in the last four years,</li> <li>• Measures to attract and retain faculty include 15% university allowance, two grades higher on appointment, provide opportunities to attend seminars, workshops, fast track/meritorious promotion, etc.</li> </ul>
2.3.5 Financial management and resource mobilization	<ul style="list-style-type: none"> <li>• Monitoring of effective and efficient utilization of financial resources include budget proposals being presented to the CMC for endorsement and recommendation,</li> <li>• CMC reviews the approved budget quarterly to keep track of expenditures, and necessary changes made and duly incorporated,</li> <li>• Heads and Focal persons of various academic departments and units/sections discuss/consult regarding the requirement of capital funds, gets endorsed by CMC and submitted to OVC,</li> <li>• RAA carried out audit for FY 2015-16 in May, 2017. Observations made were dropped during the exit meeting. A committee audits the book of accounts of Staff Welfare Scheme,</li> <li>• Financial sources include RGoB student fees, tuition fees from self-financed students, RGoB grants for capital works, charges from hiring out of facilities, consultancy services, training fees from stakeholders, rental income, interest from fixed deposits (Nu 68M), grants from projects and collaborations, etc,</li> <li>• Students manage the College mess and student audit team carries out the monthly auditing of the accounts.</li> </ul>

## 2.4 Infrastructure and Learning resources

2.4.1 Physical • **Administrative Building** has President's Office, Deans' Offices, Adm and

Facilities	<p>Accounts section, Exam Center, Office of Estate Manager, Students Affairs Section, washrooms,</p> <ul style="list-style-type: none"> <li>● <b>Academic Buildings</b> house six departments, each of them has classrooms, labs, computer labs, Learning Resource Centre (LRC), faculty and staff offices,</li> <li>● <b>Workshops</b> for various disciplines include Carpentry, Sheet metal and Welding, Fitting and Plumbing, Machine Shop, and Hydraulic Lab,</li> <li>● <b>Students Hostels</b> (with common mess facilities – 12 hostels, 574 capacity (410 boys and 164 girls), Self-catering Hostels- 6 hostel with 288 capacities (240 boys and 48 girls). One Hostel with kitchen and dining attached for 188 students. One Kitchen with two dining halls attached catering to 386 students,</li> <li>● <b>Indoor games facilities</b> include Badminton, TT, Carom and Chinese Checker, Chess; <b>Outdoor games</b> are football ground, 2 Basket Ball courts, lawn tennis court, futsal, volley ball court, archery range,</li> <li>● <b>Residential facilities</b> include 2 Guest Houses, President's Quarters, 80% of Faculty and Staff resides in govt. quarters, 5 Provosts' quarters.</li> </ul>
2.4.2 Maintenance of infrastructure	<ul style="list-style-type: none"> <li>● RUB has a set policy for the allocation of resources for the maintenance of facilities and the CMC discusses and allocates funds for different activities and within the permissible limits as per college guidelines,</li> <li>● The Project Management Team (PMT) verifies and prioritizes the major maintenance works to be carried out annually and submits to CMC for recommendation and approval, and Nu. 26.64M allocated in last 4 yrs for maintenance of buildings; 13.91M for MoP,</li> <li>● College has system for carrying out repair and maintenance works and major maintenance and renovation works are planned and carried out through standard tendering processes,</li> <li>● Dedicated Estate Management and Maintenance Section led by Estate Manager and supported by carpenter, electrician, plumber, mason, gardeners and sweepers carry out all aspects of maintenance works,</li> <li>● Lab in-charges/technicians carry out repair and maintenance of lab equipments while Student Maintenance Clubs carry out minor maintenance works twice a week (Wednesday and Saturday afternoons),</li> <li>● To improve water supply in the College, rehabilitation works worth of Nu. 3.37M has recently been completed.</li> </ul>
2.4.3 Library as a Learning Resource	<ul style="list-style-type: none"> <li>● Library has carpet area of 1,288 sqm with reading and discussion rooms, 20 computers connected to internet., whole library bldg is wi-fi enabled,</li> <li>● Library has seating capacity of 200 -300; is opened from 8 am to 7 pm on working days and 8 am to 12 pm on Saturdays,</li> <li>● 15,926 volumes of books, 3403 titles; 15 different types of magazines (educational and recreational); automated with KOHA system and RFID,</li> <li>● Library invites requisition from individual tutors through the HoD/PLs and compiles and submits to the DAA for his review,</li> <li>● Approximately Nu 1M annually was approved for books during last 4 years with separate budget for journals,</li> <li>● Has electronic journals and digital database, fully automated library system including self check out and security gates with RFID,</li> </ul>



	<ul style="list-style-type: none"> <li>No formal library advisory committee but the requirements and issues are discussed in PCs, CAC and finally put up to the College Management Committee.</li> </ul>
2.4.4 ICT Infrastructure	<ul style="list-style-type: none"> <li>IT Service Unit (ITSU) caters to IT related needs of the College, manages IT infrastructure, and also maintains the inventories related to IT,</li> <li>ITSU strives to provide secure, effective and reliable IT services to support the academic and administrative operations needs of the College,</li> <li>College has 340 computers (Computer Student Ratio: 1:3) distributed to various departments; each department has a computer lab with required software,</li> <li>9 Servers for various services; 13 OHPs, Internet lease line, 20Mbps, Fiber Optic cable connection and internet facilities in Staff Quarters and Guesthouse,</li> <li>Budget allocation for Internet and IT equipments ranged from Nu. 0.112M in FY 2014-15 to Nu. 1.92M in FY 2017-18,</li> <li>Virtual Learning Environment allows teachers to share educational materials with their pupils via the web,</li> <li>Connectivity in some facilities including Guest Houses is observed to be weak and irregular.</li> </ul>
2.4.5 Other facilities	<ul style="list-style-type: none"> <li>College has 2 Guest Houses, one of them is Executive standard and other one having historical significance,</li> <li>MP Hall where students can perform various curricular and extra-curricular activities</li> <li>Cafeteria which accommodates about 60 heads at a time,</li> <li>Students Convenience Center—a stationery store with all types of stationery, printing, duplicating facilities, groceries,</li> <li>College also has Prayer Hall and Mani Dungkhor, spaces for Music Club, Cultural Clubs, facilities for medical emergencies,</li> <li>Own source of water supply which also caters to the needs of local population.</li> </ul>

## 2.5 Student services

2.5.1 Admission process and student profile	<ul style="list-style-type: none"> <li>Follows RUB's centrally coordinated admission procedures and system, College Admission Committee carries out sensitization programme to nearby high schools in the region,</li> <li>Available seats in each programme is advertised in both print and broadcast media centrally by University Admission Committee (UAC), also shared on social media,</li> <li>Class XII passed students with a minimum of 50% in Physics, Chemistry, Maths, English and pass in Dzongkha for BE in Power Engg and subject wise ability rating points are used to rank applicants for selection,</li> <li>For in-service candidates with Diploma in Electrical Engineering, min. 55% and 24 months active service are eligible for entry into 2nd year under Accreditation of Prior Learning (APL),</li> <li>Candidates with a diploma from outside Bhutan will have to study and pass the Academic Skills and Dzongkha for Communication modules,</li> <li>Selection of in-service candidates carried out through an Entrance Exam</li> </ul>
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	conducted by the institute.
2.5.2 Student progression	<ul style="list-style-type: none"> <li>• All students progress for employment; overall there is a good rate of employment for most of graduates from JNEC;</li> <li>• More than 90% of the students get employed within a year of graduation from Diploma in Civil, Electrical and Mechanical Engg, about 50% of the graduates get employed within 1 year from Diploma in Surveying, Electronics and Communication Engg and Diploma in Computer Hardware and Networking; about 20% of the graduates have been employed from the 1st batch of Diploma in Materials and Procurement Management which graduated in July 2017.</li> <li>• The college informs the major employers, RCSC and MoLHR, BPC, PHPA on the statistics of students graduating from the college and invites them for campus interviews,</li> <li>• Provides six weeks of OJT programme for students that provide work experience and familiarization with the respective organization,</li> <li>• Module tutors provide special coaching to students who cannot cope in academics.</li> </ul>
2.5.3 Student support.	<ul style="list-style-type: none"> <li>• Student support in academic matters include special coaching, tutorial, counseling, consultation, and constant guidance and reminder,</li> <li>• Publishes Student handbook annually which contains Vision, Mission and Core Values; Management structure, General and Academic Rules and Regulations, Module matrices, Code of learning and teaching practice - responsibilities of students, Student Forum, Student support services etc,</li> <li>• Eleven self-financed Civil Engg students were awarded (50%) scholarship by the RUB based on their semester-wise academic performance (overall percentage &gt; 70%). In addition, 10 technicians of JNEC have been awarded scholarship to pursue Diploma programme based on their work performance,</li> <li>• DSA collaborates with HM's Kidu Office for financial support for economically weak students;</li> <li>• Students participating in Games and Sports at the university level are provided with additional points for selection to foreign country opportunities and their absence from the classes are considered official,</li> <li>• Students Welfare Fund (SWF) in place and supports sick students, provides semso during death of parents and students and also loans to students.</li> </ul>
2.5.4 Student activities	<ul style="list-style-type: none"> <li>• Sports and games events, cultural and extra-curricular activities are pre-planned and organized throughout the academic year,</li> <li>• Sports and recreational facilities like football ground, BB, VB, Lawn tennis and badminton courts, MP Hall and Pavilion are housed on its 8,019 sqm space,</li> <li>• Games, sports, literary, cultural, social work programmes planned and organized officially through Students Office are conducted in the form House Competitions amongst the four houses. Champion House is declared with cash prize and certificates,</li> <li>• College participates in every Eastern Regional matches of RUSFoB and in the regional open tournaments in football and volleyball held in Samdrup Jongkhar every year. JNEC teams have won a total of ten open tournaments in football and volleyball so far,</li> </ul>

	<ul style="list-style-type: none"> <li>• Student activities are also organized through 12 clubs of which 3 are student initiated,</li> <li>• JNEC Y-Peer judged as the best in Bhutan and recognized by Y-Peer Asia-Pacific.</li> </ul>
2.5.5 Stakeholder relationships	<ul style="list-style-type: none"> <li>• Faculty members serve as reviewer and experts in various organizations and development of programmes such as CST, BPC, MoLHR, Gyalpoishing IT College, Sherubtse College etc,</li> <li>• Adjunct faculty at the College of Science and Technology, RUB, Phuentsholing,</li> <li>• College conducts cleaning campaign, waste management advocacy programmes through waste management and rover scout clubs,</li> <li>• College also distributes used clothes and stationery to needy people and students of nearby community through "Helping Hand Club",</li> <li>• Other activities for enhancing stakeholder relationship include: <ul style="list-style-type: none"> <li>▪ 6 weeks OJT for students,</li> <li>▪ Inviting External Examiners to regularly monitor and provide expert advice and feedback on the health of the academic programmes,</li> <li>▪ Stakeholders' Consultative Workshops for review and validation of academic curriculum at regular interval,</li> <li>▪ Develop and provide professional development training programme for field/practicing engineers/managers, and Consultancy services etc,</li> <li>▪ Signing MoU with relevant Universities/Industries/ Stakeholders Communities.</li> </ul> </li> </ul>
2.5.6 Credit transfer system	<ul style="list-style-type: none"> <li>• JNEC being a constituent college of RUB follows Wheel of Academic Law (WAL), the provisions of which does not allow credit transfer for regular programmes between institutions; College has recently adopted a credit-transfer for exchange programmes,</li> <li>• If 70% or more of the content offered by partner universities is similar to JNEC modules, college accepts credit transfer.</li> </ul>
2.5.7 Employability	<ul style="list-style-type: none"> <li>• JNEC shares information on the number of graduates and their competency to labour market through various media and to enquiring agencies / employers,</li> <li>• DRIL invites relevant stakeholders / organizations to campus for orientation to final year students; details of final year students sent to MoLHR and other agencies to initiate campus interview,</li> <li>• Vacancy announcements from different organizations are posted on college notice board and college website,</li> <li>• College tracks the employment status of graduates and incorporates the same in an annual report of the department,</li> <li>• Sensitization on job search skills is carried out annually by Regional Labour Office of MoLHR in S/J,</li> <li>• Every faculty also makes additional effort to guide and counsel student in this area through soft skills, entrepreneurial skills, highlight the requirements and needs of various stakeholders.</li> </ul>
2.5.8 Performance	<ul style="list-style-type: none"> <li>• College graduates are equipped with technical expertise in Engg field,</li> <li>• Graduates form the majority of engineering workforce with most of them holding higher positions in the country,</li> </ul>

	<ul style="list-style-type: none"> <li>The highlights of the recent achievements by the College teams are given below:             <ol style="list-style-type: none"> <li>1) Football team was the runners up in the 2nd JNEC Open Football tournament held in Feb 2017, where 18 teams from the eastern dzongkhags participated,</li> <li>2) Football team played was the finalist of the first RUSFoB tournament held in JNEC in 2014.</li> <li>3) Volleyball Team played was the finalist of the 3rd RUSFoB tournament held in SCE, Samtse, 2016</li> <li>4) Won two gold and a silver medals in the National Karate Championships held in Thimphu, 2015.</li> <li>5) Two students participated in Badminton and Table Tennis competitions in Bangkok, Thailand and South Korea,</li> <li>6) Two students participated in SAUFEST at Indore, India in 2016.</li> </ol> </li> </ul>
2.5.9 Alumni services	<ul style="list-style-type: none"> <li>There is a plan to initiate formal Alumni Association in the College in 2018 for which the work is already in progress,</li> <li>Apart from academic and research activities networking, alumni have been initiating sports activities with faculties / staff of college;</li> <li>Alumni are involved in internal quality assurance mechanism such as external examiners, member of the CAC, guest lecturers, resource persons, part time teaching, assistance during industrial tours and supervisor of students during "On-the-Job-Training".</li> </ul>

<b>2.6 Internal quality assurance and Enhancement system</b>	
2.6.1 Internal quality assurance system	<ul style="list-style-type: none"> <li>Uses RUB's quality assurance mechanism wherein College/ Academic Dean works closely with the Academic Director of OVC,</li> <li>Has external members in CAC and two external examiners for each programme, however, participation has not been regular,</li> <li>Alumni are invited to be external examiners, students are also members of AB, CAC, PBE, and Programme Committee,</li> <li>Uses RUB's WAL Quality Criteria framework: Aims; Curriculum Design and Review; Staff Resources; Teaching Learning and Assessment; Students' Works; Facilities and Learning Resources; Programme Organization; Student Support and Standards,</li> <li>Receives feedback from students, external examiners on module content and delivery and are used for improvement of the programme.</li> </ul>
2.6.2 Institutional effectiveness	<ul style="list-style-type: none"> <li>Organizes consultative workshops/ meetings with stakeholders and conducts tracer studies to gauge the effectiveness of the programme,</li> <li>Prepares Annual Programme Monitoring Reports (APMR), discussed in CAC and submits to Director, DAA, OVC.</li> </ul>

<b>Section Overall Analysis</b>	<b>3:</b> Observations (Please limit to five major ones for each and use telegraphic language. It is not necessary to denote all the five bullets for each)
3.1 Institutional Strengths	<ul style="list-style-type: none"> <li>Physical infrastructures: academic, sports, residential including two newly constructed large hostels, and optimally utilized,</li> <li>Impressive inventory of valuable assets- lab equipment, workshop</li> </ul>

	<p>materials and teaching-learning resources,</p> <ul style="list-style-type: none"> <li>• Total assets worth Nu 277.311M as of June 2017 (excluding buildings and land),</li> <li>• Dynamic leadership and effective management for institutional development including innovative practices to enhance team-work,</li> <li>• Courses (diploma) are largely skill oriented and have advantages for easy employment,</li> <li>• Structure in place, uses technology, encourages student centric teaching for ensuring effective learning process,</li> <li>• Significant numbers of MoUs and exchange programmes for further studies and training</li> <li>• Strategic Plan, 2018-2030 which provides road map to college,</li> <li>• Appropriately located campus with suitable climate and adequate area to accommodate designed programmes and co-curricular activities.</li> </ul>
3.2 Institutional Areas for Improvement	<ul style="list-style-type: none"> <li>• Campus landscaping including improvement of internal approach roads connecting different facilities,</li> <li>• Credit transfer system within the in-country colleges,</li> <li>• Policy and Standard Operating Procedure (SOP) for Disaster Management,</li> <li>• A comprehensive policy for systematic maintenance and rehabilitation of physical facilities,</li> <li>• Peer reviewed publications,</li> <li>• Student engagement in teaching learning process,</li> <li>• Scope to replace fuel wood with appropriate technology or energy source.</li> </ul>
3.3 Institutional Opportunities	<ul style="list-style-type: none"> <li>• Design, develop and manufacture more appropriate technologies/products to generate revenues for the college, either through patents or manufacturing</li> <li>• Focus on becoming centre of excellence in applied engineering and technology, leading to "Institutional Brand",</li> <li>• Explore overseas employment opportunities for graduates,</li> <li>• Explore for more formal collaborations with industries in the region for mutual benefits,</li> <li>• Provisions for courses and appropriate facilities to cater to the needs of differently-abled students,</li> <li>• Extension of consultancy services to other stakeholders, set high standards making use of available expertise,</li> <li>• Establishment of "Endowment Fund" to ensure financial sustainability,</li> </ul>
3.4 Institutional Challenges	<ul style="list-style-type: none"> <li>• Geographical location of the college limits interactions with rest of the academic institutions of the country,</li> <li>• Limited opportunities for linkages with other universities/academic institutions outside Bhutan due to level of programme (i.e. Diploma level programmes) offered,</li> <li>• Maintenance of physical facilities and equipments,</li> <li>• Teaching still not a preferred profession,</li> <li>• Provision of housing and accommodation to staff and students.</li> </ul>

**Section 4: Recommendations for Quality Enhancement of the Institution**

The Accreditation team submits these recommendations for the college to consider:

- 1) Institute IQAU - independent of all other committees to oversight all institutional quality and effectiveness,
- 2) Develop a comprehensive policy and SOP for disaster management to prepare and/or respond to natural calamities,
- 3) Landscaping of the campus and enhance the aesthetics of buildings to promote a sense of harmony,
- 4) Improve external infrastructures such as internal roads, drainage system, footpaths and street lights,
- 5) Formulation of a Comprehensive Policy for systematic regular maintenance & rehabilitation of existing physical & new infrastructures.
- 6) Institute Credit Transfer System with sister academic colleges with win-win purpose,
- 7) Constitute a Task Force to study, analyze, prioritize and develop strategies to implement:
  - 7.1 Institutional areas for improvements identified in this report,
  - 7.2 Institutional opportunities identified in this report,
  - 7.3 Recommendations proposed in this report.

I agree with the observation of the accreditors as mentioned in this report.

  
Signature of the Head of the Institution  
Seal of the Institution



Signature of the Accreditors:

Name	Designation	Signature with date
Dr. Singye Namgyel	Chairperson	
1. Mr. Meghraj Adhikari	Member	
2. Mr. M.N. Lamichaney	Member	 16/11/2017
3. Mr. Phuntsho Namgyal	Member	
1. Mr. N.B. Raika	BAC Coordinator/QAAD Official	