

**SELF-STUDY REPORT (SSR)
FOR
QUALITY ASSURANCE AND ACCREDITATION (QAA)**

Submitted to

Quality Assurance and Accreditation
University Grants Commission
Sanothimi, Bhaktapur.

Submitted By

Institute of Engineering
Pulchowk Campus
Pulchowk, Lalitpur.

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Acknowledgement

Pulchowk Campus is the pioneer in starting engineering education in Nepal. At present, it is one of the constituent campus of TU having status of Central Campus. It is situated at Pulchowk, at the heart of the Lalitpur Metropolitan City, which is in the close proximity to most of the government offices and other research institutions. Pulchowk Campus offered diploma level (intermediate level with three years duration) courses in various engineering disciplines since 1973 (2030 BS) which were phased out. Currently, Pulchowk Campus has been offering Bachelor's Degree courses in 7 disciplines and Master of Science courses in 21 engineering disciplines. First PhD intake was in 1997 (2054), but regular PhD admissions in various disciplines have been started from 2011. Currently, 53 scholars have been carrying PhD researches in different disciplines. It is evident that the Pulchowk Campus is playing crucial role in the preparation of qualified human resources in engineering sector, which are needed for the national development.

At present different campuses and private engineering colleges have been engaged in providing engineering education. Engineers must be able to work in the local market and at the same time they must be at par with the global standards, so that they can compete with global market and able to understand and handle latest technology. To achieve this, there must be institutions with capable human resources, research laboratories and potential students. Graduates from higher institution must have adequate knowledge and skills so that they are capable enough to solve the demand of local market, generate innovative ideas and entrepreneurial skills and at the same time capable enough to compete in the global market. From students prospective there are many campuses/colleges and subjects in engineering and can have many choices. Every year a substantive number of students are going abroad to have good quality education and employability. In this context, Quality Assurance and Accreditation (QAA) program set by the University Grant Commission (UGC), to regulate academic programs of higher academic institutions, should be implemented and the students and concerned stakeholders need to be aware of the same. We welcome the initiation taken by UGC to enhance the quality of higher education via the development of a rational approach and willing to implement it in Pulchowk Campus and seek help to implement it.

The team members of the working group highly appreciate the help, cooperation, support and contribution provided by the faculty members, staffs, head of the departments, MSc program coordinators and students whose suggestions were invaluable and included during different levels of the work.

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(Asst. Campus Chief – Facility)
- Member : Lecturer Daya Sagar Baral
(Director CIT)
- Member : Reader Sanjeev Pandey
(Director ICTC)
- Member : Shreetam Pokharel
(Admin Chief)
- Member : Bal Bahadur Thapa
(Account Chief)
- Member Secretary : Mrs. Nita Acharya
(Section Officer)

**DATA COLLECTION FORMAT FOR SELF-STUDY REPORT (SSR)
INSTITUTIONAL**

SECTION A

INFORMATION FOR INSTITUTIONAL PROFILE

1. Institutional Information
Name of the Institution: Institute of Engineering, Pulchowk Campus
Place: Pulchowk, Lalitpur.
P O Box: 1915 KTM
District: Lalitpur.
2. Information for Communication

a. Office

Name	Telephone with Extension Number	Fax	E-mail
Executive Head of the Institution: Prof. Dr. Gokarna Bahadur Motra	015543078 Ext. No.110 9851132966	015525830	gmotra@ioe.edu.np
Executive Assistant: Mr. Shiva Krishna Duwa, Mr. Jitendra Kumar Manandhar, Mr. Uday Lal Dangol	SKD-9851051021 Jit. – 9841291845 Udaya.-9842053772		kaski_electronics@yahoo.com shiva@pcampus.edu.np mejiten@ioe.edu.np udayadongol123@gmail.com
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b. Residence

Name	Telephone	Fax	E-mail
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Management Committee Chairperson: Prof. Dr. Gokarna Bahadur Motra	015543078 Ext. No.110 9851132966		gmotra@ioe.edu.np

3. Type of Institution
 Constituent Affiliated Degree Awarding Autonomous Institution
4. Institutional Management:
 Public Community Private Other (please specify)
5. Financial category of the institution:
 Government Funded Self-financing Community Other (please specify)
6. a) Date of Establishment of the Institution: **(01/05/1972) BS 01/04/2029 IOE**
 b) Date of commencement of the Bachelor or higher level Program(s) **(01/03/1984)**
 c) University to which the Institution is affiliated: (attach the certificate of affiliation)
7. Date of Government /UGC approval (only for Institution affiliated to foreign universities):
(08/09/2015) AD
8. Is the institution autonomous in terms of
 Financing Administrative Management Academic Management None
9. Institution's Land area in **Ropani 368-2-2-2 (Attached Lal Purja Annex 1)**
10. Location of the Institution
 Urban Semi-urban Rural
11. Current number of academic programs offered in the Institution under the following categories:
 (Enclose the list of academic programs offered)

Academic Programs	Number of Program
Certificate course (PCL 2 years),10+2(HSEB), or CTEVT programs	
Bachelors:-	7 Seven
Masters:-	21 Twenty one
Mphil	0
PhD:-	7 Seven
Any other (specify)	CES, Erasmus, CARD, ICTC, CIT, Robotics Lab, Soil Testing Lab, CED, Innovative & Incubation Center, CDS, CIMDU, CPS, ICS,IIEC.
Total	BE-7 & MSC 21 Streams & PhD- 7

12. List the Departments in the Institution (faculty-wise)

Faculty of Science and Technology
Departments:
Faculty of Humanities & Social Sciences
Departments:
Faculty of Management
Departments:
Faculty of Education
Departments:
Faculty of Law
Departments:
Institute of Engineering(IOE), Pulchowk Campus
Departments:
1. Department of Civil Engineering
2. Department of Mechanical & Aerospace Engineering
3. Department of Applied Sciences
4. Department of Electrical Engineering
5. Department of Electronics & Computer Engineering
6. Department of Architecture Engineering
Institute of Medicine
Departments:

13. Give details of the **self-financing/self-initiated courses**, if any offered by the institution (for public institutions only).

Programs	Level of Study	Eligibility requirement for student admission	Student Number (Enrolment /Capacity)
Civil	Bachelor	+2 in Science/Certificate level	192
Mechanical	Bachelor	+2 in Science/Certificate level	48
Architecture	Bachelor	+2 in Science/Certificate level	48
Electrical	Bachelor	+2 in Science/Certificate level	48
Electronics & Communication	Bachelor	+2 in Science/Certificate level	48
Computer	Bachelor	+2 in Science/Certificate level	96
Aerospace Engineering	Bachelor	+2 in Science/Certificate level	48
Structural Engineering	MSC	B.E (Civil) or equivalent	20
Environmental Engineering	MSC	B.E (Civil or Agriculture) or equivalent	20
Water Resources Engineering	MSC	B.E (Civil or Agriculture) or equivalent	20
Geo-Technical Engineering	MSC	B.E (Civil or Agriculture) or equivalent	20
Disaster Risk Management	MSC	B.E in any field/B.Arch./M.Sc. Science	20
Transportation Engineering	MSC	B.E (Civil or Agriculture) or equivalent	20
Construction Management	MSC	B.E (Civil or Agriculture), B.Arch. or equivalent	20
Climate Change and Development	MSC	B.E/B.Sc. Agriculture/ B.Sc. Forestry/ B.Sc. Science(4 years), B.Arch. or equivalent	20
Material Science	MSC	B.E/ B.Sc. Agriculture/ M.Sc. Science for 3 years bachelor degree/B.Sc. Science(4 years) B.Arch. or equivalent	20
Urban Planning	MSC	B.Arch./B.E (Civil) or equivalent	20
Energy for Sustainable Social Development	MSC	B.Arch./B.E in Civil, Mechanical, Industrial and Agriculture Engineering or equivalent	20
Power System Engineering	MSC	B.E (Electrical) or equivalent	20
Information and Communication Engineering	MSC	B.E (Electronics/Electrical/Computer) or Equivalent	20
Computer System and Knowledge Engineering	MSC	B.E (Electronics, Computer) or Equivalent	20
Renewable Energy Engineering	MSC	B.E (Electrical, Civil/Agriculture, Mechanical/Industrial/Auto-Mobile) or Equivalent	20
Technology Innovation and Management	MSC	B.E or Equivalent	20
Energy System Planning and Management	MSC	B.E (Electrical, Civil/Agriculture, Mechanical/Industrial/Auto-Mobile) or Equiv.	20
Mechanical System Design and Engineering	MSC	B.E Mechanical/Industrial or Equivalent	20
Energy Efficient Building	MSC	B.E. Civil, B Arch. Or Equivalent	20
Hydropower Engineering	MSC	B.E. Civil or Equivalent	20

14. State the norms and procedures for recruitment of teaching and non-teaching staff of the Institution. (Enclose the details) IOE Pulchowk Campus recruit faculties and administration staff on temporary basis on internal source as per TU Service Commission Rules and Regulations (**See detail Annex 2**)

15. Number of Full timer and Part timer teaching staff at present: (**Annex 3**)

Particulars	Disadvantaged / Janajatis		Others		Grand Total
	F	T	F	T	
Full Time Teachers (Total)					
No. of teachers with PhD	2	15		39	56
No. of teachers with MPhil				0	0
No. of teachers with Masters	6	28	3	60	97
No. of teachers with Bachelors	0	20	0	8	28
Part Time Teachers (Total)					
Part-time teachers with PhD					
Part-time teachers with Mphil					
Part-time teachers with Masters				17	17
No. of teachers with Bachelors				31	31

16. Give the details of average number of hours/week (class load) (**Annex 4**)

Courses	Full Time Teachers (Total)	Part Time Teachers (Total)	Total
Science			
Management			
Humanities and Social Science			
Education			
Law			
Institute of Engineering, Pulchowk Campus	12 hrs./week	4 hrs./week	
Please add other courses if applicable			

17. Number of members of the non-teaching staff of the Institution at present: (**Annex 5**)

Particulars	Disadvantaged / Janajatis		Others		Grand Total
	Female	M	F	M	
Administrative Staff	16	42	30	44	132
Technical Staff	3	10	2	12	27

18. Regional profile of the students enrolled in the institution for the current academic year: 2074

No of Students Enrolment From ...	BE		MSC		MPhil	PhD		
	F	M	F	M	F	M	F	M
Same district where the institution is located	19	339	22	277		2		659
Other districts	74	413	95	372		22		976
SAARC countries	3	3						6
Other countries			2	2				4
Disadvantaged/Janajatis	3	9	6	10			169	28

Note: F= Female, T= Total in Table 15, 17 and 18.

19. (A) Details of the last two batches of students:

Particulars	Admitted to the program Civil Engineering		Admitted to the program Architecture		Admitted to the program Electrical Engineering	
	Batch 1: All 069 batch (While 068 batch Arch.)	Batch 2: All 070 batch (While 069 batch Arch.)	Batch 1: All 069 batch (While 068 batch Arch.)	Batch 2: All 070 batch (While 069 batch Arch.)	Batch 1: All 069 batch (While 068 batch Arch.)	Batch 2: All 070 batch (While 069 batch Arch.)
	Year: Graduation year 2073 Bhadra	Year: Graduation year 2074 Bhadra	Year: Graduation year 2073 Bhadra	Year: Graduation year 2074 Bhadra	Year: Graduation year 2073 Bhadra	Year: Graduation year 2074 Bhadra
	Master's	Master's	Master's	Master's	Master's	Master's
	192	192	48	48	48	48
Drop-outs						
a. Within four months of joining	0	0	0	0	0	0
b. Afterwards	5	9	1	1	0	2
Appeared for the final year examinations	191	187	46	47	47	47
Passed in the final examinations	151	107	34	36	32	34
Pass % of number appeared (Total)	78.64	55.72	70.83	75.00	66.66	70.83
Pass % with distinctions	3	11	1	1	1	0
Pass %, (First class)	133	93	31	32	29	31
Pass %, (Second class)	15	3	2	3	2	3
Pass %, (Third class)	0	0	0	0	0	0
Number of students expelled from examination hall if any	1	3	0	0	1	0

19. (B) Details of the last two batches of students:

Particulars	Admitted to the program Electronics & Communication Engineering		Admitted to the program Computer Engineering		Admitted to the program Mechanical Engineering	
	Batch 1: All 069 batch (While 068 batch Arch.)	Batch 2: All 070 batch (While 069 batch Arch.)	Batch 1: All 069 batch (While 068 batch Arch.)	Batch 2: All 070 batch (While 069 batch Arch.)	Batch 1: All 069 batch (While 068 batch Arch.)	Batch 2: All 070 batch (While 069 batch Arch.)
	Year: Graduation year 2073 Bhadra	Year: Graduation year 2074 Bhadra	Year: Graduation year 2073 Bhadra	Year: Graduation year 2074 Bhadra	Year: Graduation year 2073 Bhadra	Year: Graduation year 2074 Bhadra
	Bachelors	Bachelors	Bachelors	Bachelors	Bachelors	Bachelors
	48	48	48	48	48	48
Drop-outs						
a. Within four months of joining						
b. Afterwards	2	3	0	0	3	2
Appeared for the final year examinations	47	46	48	48		48
Passed in the final examinations	36	30	37	35	34	46
Pass % of number appeared (Total)	75.00	62.50	77.08	72.91	70.83	95.83
Pass % with distinctions	1	0	0	3	6	7
Pass %, (First class)	33	4	34	32	27	37
Pass %, (Second class)	2	26	3	0	1	2
Pass %, (Third class)	0	0	0	0	0	0
Number of students expelled from examination hall if any	1	2	0	0	1	0

19. (A) Details of the last two batches of students:

Particulars	Admitted to the program Structure Engineering		Admitted to the program Environmental Engineering		Admitted to the program Water Resources Engineering	
	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra
	Master's	Master's	Master's	Master's	Master's	Master's
	20	20	20	20	20	20
Drop-outs						
a. Within four months of joining						
b. Afterwards						
Appeared for the final year examinations	16	27	37	56	22	59
Passed in the final examinations	12	14	10	18	6	30
Pass % of number appeared (Total)	60	70	50	90	30	150
Pass % with distinctions						
Pass %, (First class)						
Pass %, (Second class)						
Pass %, (Third class)						
Number of students expelled from examination hall if any						

19. (B) Details of the last two batches of students:

Particulars	Admitted to the program Geo-technical Engineering		Admitted to the program Disaster Risk Management		Admitted to the program Transportation Engineering	
	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra
	Master's	Master's	Master's	Master's	Master's	Master's
	20	20	20	20	20	20
Drop-outs						
a. Within four months of joining						
b. Afterwards						
Appeared for the final year examinations	55	56	25	28	24	34
Passed in the final examinations	23	12	16	7	9	14
Pass % of number appeared (Total)	115	60	80	35	45	70
Pass % with distinctions						
Pass %, (First class)						
Pass %, (Second class)						
Pass %, (Third class)						
Number of students expelled from examination hall if any						

19. (C) Details of the last two batches of students:

Particulars	Admitted to the program Construction Management		Admitted to the program Climate Change and Development		Admitted to the program Urban Planning	
	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra
	Master's	Master's	Master's	Master's	Master's	Master's
	20	20	20	20	20	20
Drop-outs						
a. Within four months of joining						
b. Afterwards						
Appeared for the final year examinations	41	44	19	19	29	51
Passed in the final examinations	21	23	7	5	14	30
Pass % of number appeared (Total)	105	115	35	25	70	150
Pass % with distinctions						
Pass %, (First class)						
Pass %, (Second class)						
Pass %, (Third class)						
Number of students expelled from examination hall if any						

19. (D) Details of the last two batches of students:

Particulars	Admitted to the program Power System Engineering		Admitted to the program Computer System & Knowledge Engineering		Admitted to the program Renewable Energy Engineering	
	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra
	Master's	Master's	Master's	Master's	Master's	Master's
	20	20	20	20	20	20
Drop-outs						
a. Within four months of joining						
b. Afterwards						
Appeared for the final year examinations	21	16	33	42	21	24
Passed in the final examinations	20	12	16	13	13	12
Pass % of number appeared (Total)	100	60	80	65	65	60
Pass % with distinctions						
Pass %, (First class)						
Pass %, (Second class)						
Pass %, (Third class)						
Number of students expelled from examination hall if any						

19. (E) Details of the last two batches of students:

Particulars	Admitted to the program Technology Innovation \$ Management		Admitted to the program Energy System Planning \$ Management		Admitted to the program Sustainable water Sanitation Health \$ Development	
	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra
	Master's	Master's	Master's	Master's	Master's	Master's
	20	20	20	20	20	0
Drop-outs						
a. Within four months of joining						
b. Afterwards						
Appeared for the final year examinations	17	17	12	17	2	0
Passed in the final examinations	8	11	8	11	1	0
Pass % of number appeared (Total)	40	55	40	55	5	0
Pass % with distinctions						
Pass %, (First class)						
Pass %, (Second class)						
Pass %, (Third class)						
Number of students expelled from examination hall if any						

19. (F) Details of the last two batches of students:

Particulars	Admitted to the program Material Science		Admitted to the program Energy for Sustainable Social Development		Admitted to the program Information \$ Communication Engineering	
	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra	Year: Post Graduation year 2073 Bhadra	Year: Post Graduation year 2074 Bhadra
	Master's	Master's	Master's	Master's	Master's	Master's
	0	20	0	20	20	20
Drop-outs						
a. Within four months of joining						
b. Afterwards						
Appeared for the final year examinations	0	19	0	12	0	18
Passed in the final examinations	0	6	0	11	0	9
Pass % of number appeared (Total)	0	30	0	55	0	45
Pass % with distinctions						
Pass %, (First class)						
Pass %, (Second class)						
Pass %, (Third class)						
Number of students expelled from examination hall if any						

20. Give a copy of the last annual budget of the Institution with details of **income and expenditure**. (Attach separately) IOE strictly follow Central Budget announce from TU. (**For detail see Annex 6**)
21. What is the institution's '**unit cost**' of education? [unit cost = total annual expenditure budget (actual) divided by the number of students enrolled]. Also give unit cost calculated excluding salary component.
The institution's unit cost of education as per **3,57,577.40 per student (Total Expenditure-29,75,04,395.41/432 = 688667.582)**
22. What is the temporal plan of academic work in the Institution?
Semester System Annual System Any other (specify)
IOE strictly follows the temporal plan of Semester System.
23. Tick the support services available in the Institution from the following:
Central library Computer Centre Health Centre
Sports facilities Press Workshop
Hostels Guest house Housing
Canteen Grievance redressed cell Common room for students
Any other (specify) Football Ground, Cricket Ground, Gym Hall, Badminton Court.
24. Whether a duly formed Institution Management Committee in place?
Yes No , if yes provide the composition of the committee in separate sheet **Organization Chart (ANNEX-7) IOE have not CMC but all these works done by IOE Staring Committee.**
25. Furnish the following details (in figures) for the last three years:

Particulars	Year I 2070	Year II 2071	Year III 2072	Year IV 2073	Year V 2074
Working days of the institution	282	277	280	284	278
Working days of the library	282	277	280	284	278
Teaching days of the institution	195	206	214	216	203
Teaching days set by the university	195	206	214	216	203
Books in the library	59424	59424	59424	59424	59424
<u>Journals/Periodicals subscribed by the library</u> National: 1 International: 2	Science Direct E-Library IOE- General	Science Direct E-Library IOE – General	Science Direct E-Library IOE – General	Science Direct E-Library IOE – General	Science Direct E-Library IOE – General
Computers in the institution	271	271	286	286	296
Research projects completed and their total outlay					
Teachers who have received national recognition for teaching/research/consultancy					
Teachers who have received international recognition for teaching/research/consultancy					
Teachers who have attended international seminars					
Teachers who were resource persons at national seminars/workshops					70
No. of hours of instruction against the plan (per year or per semester)	97	110	118	119	97

*Note: Please attach the annual calendar of operations of the institution (**Annex-8 Academic Calendar**)*

26. Give the number of ongoing research projects and their total outlay.

SN	Name of ongoing projects	Total outlay
1	Window Program under the SHEP Project	9,75,00,000.00
2	Profiling of Climate Change Indicators by Tracking Environmental Proxies along National Rad Lines and their Integration to Model Projections and Footprint Analysis from the Satellite Orbital Slots for Nepal	20,00,000.00
3	Performance Based Funding under the Higher Education Reform Project(HERP) Project	4,00,000.00
4	Design and Modification of Nonporous Carbon from locally available Agricultural waste for wireless communication and Removal for Arsenic from Water	20,00,000.00
5	Performance Based Funding under the Higher Education Reform Project(HERP) Project	70,00,000.00

27. Does the Institution have collaborations/ linkages with international institutions? Yes No
 if yes, list the MoU signed and furnish the details of active MoU along with important details of collaborations.

S. N	Year	Organization	Important Details of Collaboration
1	2018	University of China	Exchange of students and faculty Joint research activities Participation in seminars and academic meetings Exchange of academic materials and other information Special short term academic programs
2	2018	WISE NEPAL	BE scholarships for 1 full time ladies student in Civil Engineering Faculty EDUCATIONALLY SOUND BUT ECONOMICALLY POOR.
3	2018	TU-NUAA Workshop	Joint Academic workshop conduct On 2018-02-18 in Nepal
4	2018	Rural Electrification Program	An agreement of mutual collaboration was signed between IOE Pulchowk Campus, Tribhuvan University and Rural Electrification Program for Technical Manpower for rural area electrification.
5	2018	Solar PV system	
6	2018	Erasmus+HUB4GROWTH	
7	2017	IOE, Pulchowk Campus	Gold Medal Awarding Program for Top Scorer student Name – Mr. Aush Parajuli (BME-069 Batch)
8	2017	TU-NUAA Workshop	Joint Academic workshop conduct On 15-17 Jan. 2017
9	2107	Workshop Seminar	International workshop seminar held on Data Analysis And Machine Intelligence- DAMI-17 on 11-13 Dec.2017
10	2017	CanSat Workshop	Can Sat Workshop and Training held at Department of Mechanical Engineering on 16-18 Sep. 2017
11	2017	Workshop	Workshop on Research Paper Writing And Induction Program from IMAC Engineering Japan held at Department of Mechanical Engineering
12	2017	Returd Conference	Partner-Nepal Solar Energy Society ((NSES), Solar Energy Foundation (SEF Nepal) National Partner-UGC, KU, NAST, NEA, SONA. International Partner- ASU,

			UNSW, NAAA, NIT, AIT, TSU, RU BHUTAN, TIBET UNIVERSITY
13	2017	MSESSD	
14	2016-2017	IOE, Pulchowk Campus	IOE Undergraduate Team Placed in the AIAA Human Space Flight Competition on 2016 -2017
15	2017	Cap-SEM Project	
16	2017	Workshop	Workshop on Industrial Enterprise Development
17	2017	Low Head Micro Hydro Power Plant	Successful Test of Ultra Low Head Micro-Hydro Power Plant first time in Nepal.
18	2017	Interaction Program	Interaction Program with senior Captain Mr. Y.K. Bhattarai (Nepal Airlines Corporation)
19	2017	CIMCEB	
20	2017	(Research Program Exchange, Student Exchange)	MOU with IOE TU/Tibet University Lhasa, Tibet China
21	2017	Arch Asia Conference in Tokyo Japan	Arch Asia Conference in Tokyo Japan
22	2017	Projects Granted EnPe phase II	

(As per Annex 9)

28. Does the management run other educational institutions besides the institution?

Yes No If yes, give details. We don't run any other educational institutions besides the institute.

29. Give details of the resources generated by the institution last year through the following means:

Source of Funding	Amount(NRs.)
UGC/Government grants for Applied Science MSC Program	NRs. 60,00,000.00
UGC/Government grants for MSESSD MSC Program	NRs. 60,00,000.00
Window Program under the SHEP Project	NRs. 9,75,00,000.00
Profiling of Climate Change Indicators by Tracking Environmental Proxies along National Rad Lines and their Integration to Model Projections and Footprint Analysis from the Satellite Orbital Slots for Nepal	NRs. 20,00,000.00
Performance Based Funding under the Higher Education Reform Project(HERP) Project	NRs. 4,00,000.00
Design and Modification of Nonporous Carbon from locally available Agricultural waste for wireless communication and Removal for Arsenic from Water	NRs. 20,00,000.00
Performance Based Funding under the Higher Education Reform Project(HERP) Project	NRs. 70,00,000.00
Donations	0

Fund Raising drives	IOE Consultancy, ICTC Exam Center, Cricket Ground, Football Ground, RTCU from all Department and Full fee intake in BE & MSC Program.
Alumni Association	Yes
Research and Consultancy	Soil Lab-NRs.8085173.38
Fee from Self-financed/initiated courses	Full Fee- NRs.90933756.00
Fees from regular programs	Regular Program- NRs.4207496.00
Any others, specify	NRs.23585181.25
RTCU	As per attach sheet

(Annex 10)

SECTION B

The marking scheme except otherwise specified in the criteria will be as:

Yes with justification and with evidence =1(full marks); justification without full evidence=0.75;

Apparent justification without record = 0.5 apparent initiatives =0.25; No= 0)

(The marking division applies proportionately to the allocated marks where necessary.)

BENCHMARK-WISE INPUTS FOR INSTITUTIONAL SSR

CRITERION 1: POLICY & PROCEDURES (15 MARKS)

1. Are there clearly defined vision, mission, goals, and objectives of the Institution in written?

Yes No If yes, mention and attach the document. (**Annex 1(A)**)

Vision: To be a premier in engineering education institution at par with world class role models in engineering education for detail see page no 45 **strategic plan.**

Mission: The mission of the Institute of Engineering, Pulchowk Campus is to provide quality engineering education and research in the frontier engineering areas relevant primarily to Nation.

2. Are there clearly defined plans, programs and strategies to achieve its specific goals and objectives?

Yes No If yes, mention and attach the document. (**Annex 1(B)**)

Above objective are allowed the following goal with measurable outcomes in the areas of research education and resource excellent:

Goal

1. Enhance academic excellency
2. Research and development think tank
3. Improve working environment
4. Financial sustainability
5. Collaboration and cooperation

Objectives

After presenting above vision and mission we set five broad objective of IOE:

1. Academic Programs: Through enhanced academic programs- on education, research works, training programs, exam and evaluation, develop new knowledge at the forefront of engineering and technology that enhances the well-being of individual and society.
2. Advocacy on Engineering Policies: Through advocacy on engineering policies, develop leadership in emerging, engineering issues and address national development issues.
3. Law and Regulations: Through the compulsory implementation of laws and regulations, enhance management and leadership skills of faculty, staffs and students, make optimum use of resources and infrastructures.
4. Resource Planning: Through the resource planning and fund management obtain financial sustainability of the institute.
5. Technology Transfer: Through the international collaboration and joint programs, enhance mechanisms for technology transfer and capacity building. (**Annex 2**)

Activities and detail action package is attached in strategic plan to achieve goals and objectives

(Please refer page 47 of Strategic Plan)

3. Are there duly formed organizational structures where the policies of the Institution are formulated, reflected, reviewed and updated?

Yes No If yes, mention the organizational chart and member compositions.

IOE Dean office make or revised new policies for Engineering Faculties. Pulchowk Campus is the Central Campus under the IOE Dean's Office. Campus has a chairperson of Campus: **Prof. Dr. Gokarna Bahadur Motra**. Under the Campus Chief of Pulchowk Campus there are 3 different Assistant Campus Chiefs:

1. Administration
2. Academic Administration
3. Facility Management

For Detail See Annex 7 on Section A – for Organization Chart

4. Has the Institution adopted any mechanism/process for internal quality monitoring and checks?
 Yes No Justify with supporting documents.
 HOD meeting in campus and department faculty meetings are regularly conducted for internal quality monitoring and checks. The Assessment of students is one of the most important elements to check internal academic quality. The monitoring of the progress and achievement of students is done regularly by taking class test and semester internal exam. Internal assessment also provide valuable information for institution to evaluate the effeteness of teaching. Furthermore, Campus carried out teacher performance evaluation and feedback from the students.
 Detail Pass rate in exam / subject is discuss in department meeting for enhancement.
For detail see Annex 3 internal Assessment Notice Department (Annex 3)
5. Is there any document of the institution to specify the job responsibilities of departments, units and individuals? Yes No If yes, give details/reference. (As TU Rules and Regulation)
 IOE has develop strategic plan (Annex 1) organogram (Annex 2) a document which has clearly defined the job responsibilities of the faculties and non-teaching staffs. The document attached herewith. Please refer **(Annex 4)**
6. Is there any defined and written scheme to evaluate the pre-defined job responsibilities of departments, units and individual staff? **Follows the TU Rules. Please See (Annex 2 Section A)**
 Yes No If yes, produce those schemes and examples of some practices
 Pulchowk Campus periodically evaluates the performance and monitors the responsibilities of faculties and staffs. Every department developed faculties' performance evaluation sheet to evaluate the academic and research performance. At the same time the performance of non-teaching staff is also evaluated using different schemes.
7. Does the institution have **strategic plan** and action plan emphasizing on team work and participatory decision making and a scheme for information sharing? Yes, No If yes, give details.
 The strategic plan of IOE has emphasized on teamwork and participatory decision-making and information sharing (the detail is in attached strategic plan report).
 The finding of the research are communicated among the stakeholders as a part of information sharing. Please refer **(Annex 5)**
8. Does the institution have program(s) to strengthen the regular academic programs through other self-sustaining programs/courses and others?
 Yes No If yes, give details.
 To strengthen the regular academic programs, IOE has the provision of **full fee** program in all faculties of BE and MSc Programs, CED Training, research labs as Central Material Testing Lab, Consultancy Services, CIT, ICTC and facilities as Cricket Ground, Football Ground, Basketball Court. **Please refer resources for IOE full fee Entrance Broachers' page no.---- RTCU in each department Minute (Annex 6)**
 Pulchowk Campus has been running full fee schemes on all programs, short term training programs, Master level Programs and Ph.D. research program.
9. Are there any formal provisions under which the institution brings "stakeholders or community feed backs and orientation" in its activities?
 Yes No If yes, give details.
 The findings of the research conducted at Campus are shared among the faculties and management through different seminars and workshops and feedbacks of the stakeholders are brought together to enhance the quality of work done.
 The findings of the research conducted at IOE shared among the Engineering communities and concerned Government officials of Nepal through different seminars/workshop and the feedback of the stakeholders are brought together to enhance the quality of work done. **(Please refer Annex 7)**
10. Were any committees/external agencies appointed during the last three years to improve the organization and management?
 Yes No If yes, what were the recommendations?
 Computerized entrance exam system, Central unified admission committee, campus admission committee, computerized online final examination application process, computerized final exam system, online result to improve their origination and management, being guided by TU Rules and Regulations 2050. **(Annex 8)**
11. Are the students involved in institution management system and quality assurance?
 Yes No If yes, give details.

Campus organizes interactions with students on regular basis on campus management system and the quality assurance. FSU Minute copy, Student scholarship minute, student hostel distribution minutes are attached for reference.

Pulchowk Campus organizes interaction with students on regular basis on institutional management system and quality assurance. FSU Representation is in the member of Hostel Management Committee, Library Committee, Canteen Committee, etc. **(Please refer Annex 9)**

12. Has there been an academic audit? Justify it.

a. by the university

b. by the Institution

Please attach the copies

The academic audit (Example: exam, appointment, curriculum approval, Thesis Defence etc.) is done according to TU rules and Regulations 2050. For details, please refer **(See Annex 10)**

13. Is there any specific mechanism to combine teaching and research?

Yes No If yes, give details

Final Year BE Project & MSc 2nd year 1 part & 2nd year II part Thesis are some examples.

Undergraduate (UG) students involved in research activities from 3rd year onward via minor project works under the direct supervision of the faculties. Theoretical knowledge acquired in the classroom are applied in the relevant practical field as per the need of society and the industries.

- Each group content four student under direct supervision of faculty member.
- Project work need to submit for the jury
- In master degree program students submit thesis work on second year second part individually
- Midterm and final presentation
- Ph.D. students conduct different research works in engineering fields.

(See Annex 11)

14. Have you observed any positive outcomes of combination of teaching and research?

Yes No If yes, give details.

Most of the master students continue their PhD research based on their recognized thesis work done in the master degree. Different exhibitions organized by the students of different departments as: **LOCUS, Robotics Club, Civil Exhibition, Mechanical Exhibition, Architectural Exhibition are the outcomes of teaching and research.** **(See Annex 12)**

15. Provide institution specific other innovations which have contributed to its growth and development.

There are some centers, clubs, committees, which are regularly contributing in the growth and development of the institution. Innovation & Incubation Center, Robotic Club, Locus, IOE Graduate Conference, Exhibition of Architecture Group, Soldering Competition and many sports competitions that are mainly organized by FSU and other activities contribute to the growth of Pulchowk Campus. **(See Annex 13)**

CRITERION 2: CURRICULAR ASPECTS (10 MARKS)

16. Is there any provision for ensuring consistency of teaching and learning with the academic goals and objectives of the institution? (0.5)

Yes No If yes, give details.

IOE had developed following provisions to ensure of consistency in teaching and learning with the academic goal and objectives of the institution.

- a. Published the detailed curriculum for B.E. and M.Sc. with learning objectives.
- b. Disseminated M.Sc. Research guideline.
- c. Organizes orientation on teaching learning activities to the faculties and students regularly

(See Annex 14)

17. Are programs flexible enough to offer students the following benefits? (0.5 x 3 = 1.5)

- a. Time frame matching student convenience
 - Pulchowk campus follows academic calendar strictly and all activities follow academic calendar as regular/back paper exams, chance back paper exam for the benefit the students.
- b. Horizontal mobility
 - Pulchowk campus allows/invite student from other university including foreign university to participant lecture classes, thesis research and other joint research projects.
 - Mobility of MSc student of Pulchowk Campus for their thesis/research work is possible through participation in Erasmus project, NTNU and other.
- c. Elective options

Elective courses are offered for BE-3rd year & 4th year and MSC 2nd students. Departments offer elective courses each semester according to demand of students and stakeholders. BE students can take 3 elective courses of their interest in whole academic session. Electives are grouped to help students to specialize in their field of interest. Similarly, in M.Sc., students are allowed to take the elective courses and they allow go abroad for research work in final year of their study.

(See Annex 15)

18. Indicate the efforts to promote quality of education with provision of skills transfer among the students such as (0.5 x 5 = 2.5)

- a. Capacity to learn
- b. Communication skills
- c. Numerical skills
- d. Use of information technology
- e. Work as a part of a team and independently

Please give evidence Capacity to learn, Communication skill, numerical skill, use of information technology and work as part of a team and independently among the students are facilitated by

- Departmental exhibitions to build capacity of students.
- IOE Graduate Conference,
- Robot Competition,
- Video Conference Modality
- Debate competition
- Community work
- Journal Paper presentation
- Giving group/team assignments
- Talk program
- Various numerical course are thought in BE/MSc program that helps the student to transfer knowledge among one another, for example: Numerical Method Engineering, Data Analysis, Project Management, Probability and Statistics and Mathematics

(See Annex 16)

19. Are there any additional focused programs and electives offered by the institution?

Yes No If yes, give details.

Pulchowk Campus provides focus programs on the contemporary subjects to enhance students' knowledge and skills. For example:-

- Computer Programming C++

- Java, PHP
- Remote sensing
- Proposal writing
- Technical writing
- Professional training on Disaster Risk Management
- Professional training on seismic resistant design of structures

Aeronautical Engineering started from this academic session. Opening of new programs BE in Chemical, Biomedical Engineering are in process and new electives are offered with availability of faculties and demand from students. **(See Annex IOE Entrance Broachers)**

20. Has the institution taken any to contribute/feedback to the curriculum of the university?

(1) Give evidence with the examples of last 4-5 years.

IOE revises the curriculum on regular basis taking the feedback of various stakeholders. The course of study for B.E. and M.Sc. prepared by corresponding subject committee. The syllabus has been made considering many engineering issues. The need for engineering education have been keenly felt at the national level.

Subject committee is responsible for designing the new and updated syllabus for BE and MSc programs as directed by **CIMDU, Faculty Board, Subject Committee, (See Annex 17)**

21. Is there any mechanism to obtain feedback from academic peers and employers? (1)

Yes No If yes, give details.

Academic peers and employers are invited during Final/minor/ Thesis presentation as external examiners for feedback and evaluation.

(See Annex 18)

22. Give details of institution-industry-neighborhood networks if any?

1. **Collaboration with N-cell and Pulchowk Campus for Scholarship and excellence award**
2. **Collaboration with KOICA and IOE for establishment of Information & Communication Training Center (ICTC) in Pulchowk Campus**
3. **Certain Sponsorship Quota sheets are allocated for Government/Industries.**

23. Does the institution inculcate civic responsibilities among the students? Give brief explanation in terms of activities (0.5) **FSU Blood Donation, Emergency Supply units has been installed in side Pulchowk Campus premises under Disaster Risk Management program. Several temporary shelter units were established in Pulchowk Campus during 2072 Earthquake. (For detail See Annex FSU Minute File)**

24. What are the efforts of the institution towards all-round personality development of the learners? Give brief explanation in terms of activities. (0.5)

Pulchowk Campus provides following platforms for its graduate students toward all-round personality development

- a. **Welcome program:** It is organized by students along with various cultural, sports, EC activities.
- b. **Orientation program:** for all students
- c. **Farewell Program:** It is organized for the outgoing graduates. This program also includes various cultural and EC activities.
- d. **Participation:** Students are nominated to participate in various environmental activities and creative competition. (Photo: Shield, Trophy, Certificate etc.)
- e. **Seminar and Conference:** Students are involved in planning and management of seminars and conferences organized by IOE and other institutions.(e.g. Graduate Conference)
Stall Exhibition: Students are actively involved in stall exhibited in conference.

25. What are the practices of the institution to impart moral and ethical value based education? Give examples of some practices (0.5) **Engineering Professional practice Included in syllabus.**

IOE maintains the practice of ethics by the following activities:

- a. Orientation on academic ethics and departmental code of conduct.
- b. Students are trained to strictly follow the ethical values while carrying out the researches.
- c. Plagiarism is always discouraged and penalized in the research works.

CRITERION 3: TEACHING LEARNING AND EVALUATION (15 MARKS)

26. Which of the following methods do you apply in admitting the new graduates? Select as many as apply. (1)

Yes with justification = 0.25, Yes without justification = 0.10 No = 0, otherwise stated

- through academic records
- through written entrance tests via computer test
- through group discussions

Through interviews (for foreign student)

Through combination of above all

Most of the graduate students passing in BE Entrance Examination give the priority BE Civil Engineering program while in masters it is M.Sc. in Structural Engineering, Geotechnical Engineering and Construction Management program. The Entrance Examination is completely based on computer test. The computer test entrance examination have 100% objective questions. Computer test entrance examination is intended to test the knowledge of candidate on subject matter and contemporary issues related to the subject.

27. Is there any provision for assessing students' needs and aptitudes for a course? (0.5)

Yes No If yes, Cite examples.

Additional Aptitude Test is taken for Architecture program conduct by Admission Committee.

The department and FSU provides individual counseling for interested students to know about its academic program. Course of study, learning materials are provided to the candidates appearing in entrance examination. The department has been facilitating to conduct orientation program for the students every year.

28. Does the institution provide bridge/remedial courses to the academically weak and disadvantaged students? (0.5)

Yes No If yes, Cite examples (UGC or other supports received in this regard may be indicated).
Scholarship, Extra Classes to Weak students.

Entrance preparation class run by FSU and the senior students of the department in co-operation with the department.

29. Does the institution encourage the teachers to make a teaching-plan? (0.5)

Yes No If yes, gives details.

The lesson plans are prepared by concerned subject teachers and they submit to IC chairman. **(Annex 19)**

30. Are syllabi in harmony with the academic/teaching calendar? (0.5) **(Annex 20)**

Yes No If yes, give details of implementation in terms of monitoring, coverage, correction, etc. Academic Calendar is attached. Courses are completed within the specified time. HOD meetings are held to discuss the status of the course. Academic **Calendar+ Syllabus.**

31. How does the institution supplement the lecture method of teaching with other teaching methods with specific weightage in terms of hours? (directed studies, assignments, presentations) (0.5)

Produce some examples.

Presentation copy, Assignment copy

The department organizes periodic meetings with the course coordinators, faculties and laboratory staffs to discuss and prepare the lesson plans. The lesson plan for theory courses is prepared by subject teachers and submitted to the coordinator. **(See Annex 21)**

32. Is there a facility to prepare audio visuals and other teaching aids? (0.5)

Yes No If yes, give details about the facilities. **By the help of Multimedia projector**

Every lecture hall is equipped with multi-media facilities and smart board. In addition, every department has separate computer lab which is used for data analysis, trainings and internet access.

33. Furnish the following for the last two years (1.5)

Teaching days per semester or per year against the requirement: 91 days

Working days per week against the requirement: 6 days

Work load per week (for full time teachers): 12 Period

Work load per week (for part time teachers): 9 period

Ratio of full-time teachers to part-time teachers: 4:1 on the basis of Subject

Ratio of teaching staff to non-teaching staff: 1:1

Percentage of classes taught by full-time faculty: about 90%

Number of visiting professors/practitioners: 13 persons

34. a. Are the students oriented to the program, evaluation system, and codes of conduct, other relevant institutional provisions and requirements?

Yes No If yes give evidence. (0.5)

The orientation program is organized in the beginning of every semester; the students are required to attend it. In the orientation, overall academic activities are shared including course structure, evaluation system and code of conducts. Similarly the faculty members are introduced in the program. The orientation on internal assessment and final exam system marks are also provided to students. The head

of department provide academic rules and regulation of the department to every student in the very first class of semester

b. Are evaluation methods communicated to students at the beginning of the academic session? (0.5)

Yes No If yes give evidence

The department communicates the students with evaluation methods. Recently, the department has adopted semester system with 20% internal examinations and 80% final examinations as per IOE rule.

The weightage of internal examinations is as follow:

- i. Attendance (5%)
- ii. Class tests (5%)
- iii. Final test (10%)

35. Does the institution monitor the overall performance of students periodically? (0.5)

Yes No If yes, give details

The department maintains attendance of the students. The students should have at least 80% attendance in order to appear in the final examinations. The students are regularly evaluated as mentioned above. In the lab class, students have to maintain lab report, which should be duly checked regularly by the concerned instructor. Enclosed document of lab report in respective subject.

36. In the case of new appointment of the teaching faculty made by the institution itself, select among the following funding criteria that are evidential in your institution. (1.5)

Vacancy Category	Operational Mechanism					
	Job Advertisement	Selection Committee Formation	Examination by Selection Committee	Evaluation of Demo Classes	Interview by Selection Committee	Job Contract Through Formal Appointment Letter
Self-Funded	Yes	Yes	Yes	Yes	Yes	Yes
Government Funded	Yes	Yes	Yes	Yes	Yes	Yes
Any other category: a. Part Time b. Guest Lecturer c. Visiting Professor						Part time basis as required on different specializations. As per attached sheet.

Campus recruits faculties with the permission of IOE as per requirement by advertising in national newspapers (Gorkhapatra) after written examination and interview by the selection committee. The department mobilizes resources through full fee program. (See Annex 22)

37. Provide the following information (in number) about the **teaching staff** recruited during the last two years. (0.5)

Teaching staff recruited from ...		
the same district it operates		from other districts
same institution	other institutions	
Year I: 8	Year I: 4	Year I: 5
Year II: 12	Year II: 2	Year II: 5

38. a. Does the institution have the freedom and the resources to appoint and pay temporary/ad hoc teaching staff? Are such provisions define in the institution act/board decision/minute?

Yes No If yes, give details of their salary structure and other benefits. (0.5)

The department appoints teaching faculty on temporary basis as per the need. The department mobilizes resources through full fee program to meet the salary and benefits of such staffs. However, the financial management strictly follows rules and regulations of the TU.

b. Does the institution have provision and practice for inviting visiting/guest faculty on regular basis?

Yes No if yes give details (0.5)

In each semester the department invites at least 25 experts for guest lectures. (See Annex 23)

39. Number of teaching staff who have attended seminars/conferences/workshops as participants/resource persons/organizer in the last two years: (1.5)

Participant Name	Level	Resource persons	Organizer
Prof.Dr. Subarna Shakya	International		IJCTT
Prof.Dr. Dinesh Kumar Sharma			
Prof. Dr. Prem Chandrda Jha			
Ass. Prof. Dr. Bharat Mandal	International		EU-NICE Erasmus
Ass. Prof.Dr. Indra Pd. Acharya	International		Post disaster Reconstruction Capacity for Nepal of 2018 , China
Lect.Mr. Sukra Raj Poudel	National		General Administration Ministry (Govt. of Nepal)
Ass.Prof. Dr.Basanta Raj Adhikari			
Prof. Dr. Ram Krishna Regmi			
Prof. DR. Bhdra Prasad Pokharel			
Ass.Prof.Dr. Rajeshwor Man Shrestha			
Ass. Prof. Mrs.Sahira Joshi			
Ass. Prof. Dr. Surendra Shrestha			
Ass. Prof. Dr. Arun Kumar Timalsena			
Prof. Dr. Ram Krishna Maharjan			
Prof. Dr. Sudha Shrestha	International		Arcasia Conference”ACA 18 Tokyo”
Ass. Prof. Ram Laxmi Nakarmi	International		Arcasia Conference”ACA 18 Tokyo”
Lect. Ajaya Chandra Lal	International		Arcasia Conference”ACA 18 Tokyo”
Lect. Eureka Barjacharya			
Lect. Sanjaya Upreti			
Lect. Sushil Bahadur Barjacharya	International		Arcasia Conference”ACA 18 Tokyo”
Dr. Rajeshwor Man Shrestha	International	Kwangoon University Seonc South Korlia	1 st international Conference on Advanced Engineering and ICT- Convergence- 2018(ICAEIC-2018)
Prof. Dr. Ram Krishna Maharjan			
Dr. Sahira Josji			
Reader Dr. Surendra Shrestha			
National level	37		IOE
International level	27	11	South Asian University/IOE
As Per Attach Sheet	4 th international Conference		4 th international Conference on Renewable Energy Technology for Rural and Urban Development (RETRUD- 2018)

(Annex 24)

40. Does the institution follow the self-appraisal method to evaluate the performance of the faculty in teaching, research and extension program? (0.5) (See Annex 25)

Yes No If yes, how are teachers encouraged to use the feedback? Provide justifications.

- Campus encourages there faculty to publish paper in National and International journal and Campus Provide Partial financial Support for the work.
- Books, paper publications and Master/PhD thesis supervision are evaluated with marks during the promotion by TU Service Commission.

41. Does the institution follow any other teacher performance appraisal Annex method? (0.5)

Yes No If yes, give details of the same and state how the results of the appraisal are used.
 Campus discusses the performances of the teachers in regular basis. The role and responsibilities of the teachers are interchangeable as per the performances. Teachers are provided with Long-Term service award, education service prize, Best Teachers award and are nominated in different Training workshops and participations in National and International Seminar.

42. Does the institution collect student evaluation on institution experience? (0.5)

Yes No If yes, what is the significant feedback from students and how has it been used?

- Campus has provision to collect the feedback of teachers from the students at the end of every semester.
- Department conduct meeting with class representative/student for evaluation and enhancement in teaching.
- Different programs such as Orientation Program, welcome program, Farewell Program are organized by FSU for the student in which campus chief is the chief guest. During the program different suggestion and comments are raised or written suggestion and comments are given to the campus by FSU/Students. Their valid suggestion incorporated by the campus.
- Campus conducts meeting with FSU/student for evaluation and enhancement of institute.

(See Annex 26A)

43. Does the institution conduct refresher courses/seminars/conferences/symposia/workshops/programs for faculty development?(0.5)

Yes No If yes, give details.

IOE is regularly conducting refreshers courses. Every Friday, it conducts graduate seminar inviting national and internationally renowned experts. All interested faculties and students attend the seminar. Furthermore, Campus also conducts workshops and seminars regularly. For capacity development, Campus organized different trainings. (See Annex 26B)

44. Give details faculty development programs and the number of teachers who benefited out of them, during the last two years. (0.5)

Faculty Development Programs	No. of Beneficiaries
1. Large Biogas Technology in China, Search New Business Opportunity GUANGZHOU LINKAGE TRADING CO.	1
2. Material Science Research in Japan Prof.Dr. Bhadra Prasad Pokharel	1
3. IOE Graduate Conference organized by CARD	25
4. Ph.D. Study in Civil Engineering at Shanghai Jiao Tong University China	1
5. MSESSE	
6. Cap-SEM Project	
7. Erasmus+HUB4GROWTH	
8. CIDS	
9. MSED	
10. CIMCEB	
11. MOU with IOE TU/Tibet University Lhasa, Tibet China (Research Program Exchange, Student Exchange)	11
12. Arch Asia Conference in Tokyo Japan	11
13. Projects Granted EnPe phase II	
14. MOU with IOE TU/ HERP Kritipur	

(See Annex 27)

45. Furnish information about notable innovations in teaching. (0.5)

- Use of multimedia projector.
- Case studies
- journal seminar
- Group discussion among students
- Talk program organize by Campus.
- Education tour organize for different faculties as per their relevant subject.
- Survey Camp organize each year for civil students from Campus.

- Different urban cities visit from Urban Planning students.
- Tribhuvan University Pulchowk Campus is the of active learning in engineering education (ALIEN) co-founded by Erasmus + Program of European Union.
- The objective ALIEN project is thus to design implement valued and active learning methodology based on Project/Problem environment.
- Video conference in ICTC with Partner University.
- Amateur Radio service in ICTC.

(See Annex 28)

46. What are the national and international linkages established for teaching and/or research? (0.5)

IOE, Pulchowk Campus linkage of National & International are as follows:

1. Partnership contract between NTNU(Department of Product Design , Faculty of Engineering Science and technology) and Tribhuvan University (IOE, CARD)
2. MOU between Build Change and CARD
3. MOU between TU, IOE and Dept. of Architecture, The University of ROMA TRE (Italy)
4. Agreement of Cooperation between TU, IOE and The College of Civil Engineering – Fuzhou University
5. MOU between IOE Consultancy & Pulchowk Campus for Estimating and Designing new Academic Block for Aerospace Engineering.
6. MOU between Rural Electrification and IOE Pulchowk Campus.
7. Big Data Workshop in association with IIT Delhi.
8. MOU between Indian Institute of Technology, Delhi and IOE Pulchowk Campus.
9. Agreement of Maintenance Cost of Attendance System
10. Cooperation Agreement For CSR Activities (For Ncell Excellence Scholarship Awards-IOE Pulchowk Campus)

For Detail **(Please refer Annex-29)**

CRITERION 4: RESEARCH, CONSULTANCY AND EXTENSION (10 MARKS)

47. Research budget of the institution in % of total operating budget. (1)

Pulchowk Campus has a following figures of total budgeting:

Research budget of the in Institution is 6.27% of Total operating Budget-8085173.38 (For Detail See Annex 6 section A)

48. How does the institution of product design, faculty research? (1)

Pulchowk Campus has departmental research committees, Research Management cell and Research coordinator to carry out research by M.Sc. and Ph.D. students.

- Encourage PG students doing project work
- Faculties have study leaves to enhance their capability and self-study leave to write books / research articles
- Faculties provided with seed money
- Provision of Research Committee
- Adjustment in teaching load/schedule if involved in research.

(For detail See Annex 30) Study leave and sabbatical leave as per red book

49. Is the institution engaged in Ph.D. level programs? (1)

Yes No If yes, give details.

Pulchowk Campus has Ph.D. level research programs. The details of Ph.D. scholars, research titles and the supervisors are given in Annex 31. **(For Detail See Annex 31)**

50. What percentage of teachers is engaged in active research – guiding research scholars, operating projects, publishing regularly, etc.? Give details. (0.5)

- The details of scholars engaged in active research, guiding research scholars, operating project, publishing in different national and international medias are given in
- About 25% or around 75 faculty are involve in active research

(Annex 32.) Departmental Research grant, CARD Research Grant, NUFU, CNRT Project, UGC Project.

51. Mention the admission status of the Mphil/PhD graduates in your institution. (0.5)

Level	Enrollment Status		Total
	Full Time	Part Time	
Mphil			
PhD	1. Udaya Raj Dhungana 2. Babu Ram Dawadi 3. Sanjaya Kumar Karna 4. Sujan Maka 5. Suraj Lamichane 6. Sekhar Aryal 7. Utsav Shree Rajbhandari 8. Mahesh Chandra Luintel 9. Anita Prajapati 10. Hari Bahadur Darlami 11. Madhu Sudan Adhikari 12. Ram Dayal Yadav 13. Ramesh Ranabhat 14. Surya Gyawali 15. Inu Pradhan Shalike	1. Sangeeta Singh 2. Madhu Sudan Dhahal 3. Dili Ram Adhikari 4. Ram Parasad Dhital 5. Krishna Parasad Bhandari 6. Shree Ram Neupane 7. Upendra Dev Bhatta 8. Mahesh Kumar Isher 9. Kiran Gautam 10. Mukesh Kafle 11. Devi Parasad Bhattarai 12. Avhimanyu Lal Singh	27 Persons

(See Annex 33)

52. How many PhDs have been awarded during the last five years? (1)

Yes No If yes, give % of financial support from recurring cost.

IOE awarded 15 Ph.D. degrees during the last 5 years.

(See Annex- 34)

53. Does the institution provide financial support to research students? (0.5)

Yes No If yes, give % of financial support from recurring cost.

IOE provide faculty research Grant under which students provided MESSD scholarships NRs 60,000 for top 5 students; NRs. 40,000 for 8 student and NRs. 30,000 for 3 students per semester to conduct their Master's Research.. (Please refer **Annex- 35**)

54. Provide details of the ongoing research projects: (0.5)

Total number of projects	Project Revenues (in NRs.)	Name	Team Title
"Profiling of Climate Change indicators by Tracking Environmental Proxies along National Road lines and their integration to Model Projections and Footprint Analysis From the satellite Orbital Slots for Nepal"	Nrs. 20,00,000.00	Dr. Nanda Bikram Adhikari	(Principal Investigator)
		Er. Anil Verma	Co-Investigator
		Er. Dinesh Baniya Kshatri	Co-Investigator
		IOE, Pulchowk Campus	Host Institution
Design and Modification of nonporous carbon from locally available agricultural waste for wireless communication and removal of arsenic from water	Nrs. 20,00,000.00	Dr. Surendra Shrestha	Principal Investigator
		Dr. Hem Raj Pant	1.Co-Investigator
		Dr. Khem Narayan Poudel	2.Co-Investigator
		Dr. Sahira Joshi	3.Co-Investigator
Transformations to future networking with broadband implementations (TraFNet)	Nrs. 4,00,000.00	Lect. Babu Ram Dawadi	(Principal Investigator)
		Lect. Daya Sagar Baral	1.Co-Investigator
Establishment of a Disaster Telecommunication Research and educational facility advancing a scientifically sound disaster Telecommunication infrastructure and process in Nepal.	Nrs.20,00,000.00	Dr. Sanjeeb Prasad Pandey	(Principal Investigator)
		Dr. Aman Shakya	1.Co-Investigator
		Mr. Rom kant Pandey	2.Co-Investigator
Window program the Higher Education Project SHEP	Nrs. 9,75,000.00	IOE	

CARD Research grant, Departmental Research Grant, External Sources such as NUFU, NORAD, NTNU Project, CNRD, UGC are funding active research in pulchowk campus.

(See **Annex- 36**)

55. Give details of ongoing research projects funded by external agencies. (0.5)

Funding agency	Amount (Rs.)	Duration (Years)	Collaboration, if any
MESSD	NRs.5,00,00,000.00	2016-2020	NTNU-Norway
Cap-SEM Project	NRs.70,00,000.00	2016-2019	NTNU-IITB-Uganda
Erasmus+HUB4GR OWTB			
UGC	NRs.20,00,000.00	2017-2019	Surendra Shrestha
UGC	NRs.20,00,000.00	2017-2019	Nanda Bikram Adhikari
UGC	NRs. 20,00,000.00	2018-2020	Sanjeev Panday
UGC	NRs. 4,00,000.00	2018-2020	Baburam Dawadi
UGC	NRs. 4,00,000.00	2018-2020	Triratna Bajracharya

(See **Annex- 37**)

56. Does the institution have research/academic publication? If yes, give details of publications in the last two years. (0.5) Journal of IOE, IOE Graduate Conference proceeding. IOE Mirror, Reflection on The Built

Environment And Associated Practices V-1 n V-2 Published by:- MESSD Program Architecture Dept. IOE.
Vaastu- Volume 1-10, ASSA n Architecture IOE., Innovation from Electrical Batch Students
(See Annex 38)

57. Does the institution offer consultancy services? (0.5)

Yes No If yes, give details.

IOE have consultancy section in Pulchowk Campus premises that provide service all over Nepal for constructive consultancy works. Recently Consultancy and Pulchowk Campus Signed MOU for new annex building for Aerospace Engineering and new block for Civil Engineering Department.

(for Detail See Annex 39)

58. Does the institution have a designated person for extension activities? (0.5)

Yes No If yes, indicate the nature of the post as –

Full-time Part-time Additional charge

- IOE Assistant dean of planning is designated person for the extension activities.
- Assistant Campus Chief (Facility) is responsible for facility/ infrastructure development
- Assistant Campus Chief (Academic) is responsible for enhancement for academic program

(for Detail See Annex 40)

59. Indicate the extension activities of the institution and its details: (0.5)

Community development Training in Disaster Management Health and hygiene awareness
Medical camps Adult education and literacy Blood donation camps
AIDS awareness Environment awareness Any other Administration and
Management Training. Exhibition organized by different faculty students **(For Detail See Annex 41)**

60. Are there any outreach programs carried out by the institution (for example, Population Education Club, Adult Education, National Literacy Mission, etc.)? (0.5)

Yes No If yes, justify.

MSc structural Engineers and graduate civil engineering students had voluntarily participated in awareness program in the earthquake - effected areas during 1st & 2nd earthquakes on BS 2072. During earthquake students have prepared temporary shelters for earthquake victims in affected areas. Master program of Urban Planning students going on different places for planning. **(For Detail See Annex 42)**

61. How are students and teachers encouraged to participate in extension activities? Any defined approaches? (0.5)

For students Pulchowk Campus allows them to work autonomously, letting them enjoy learning and discovering and make them feel they can achieve their own objectives. Beside this, the students are free to select their interest area and topic to be selected in such extension activities. Furthermore, campus invests in supports services (supervisor/advisor) mostly when students needed. For earthquake victims students/teachers have provided shelters for earthquake victims in affected areas. **(For Detail See Annex 43)**

62. Does the institution work and plan the extension activities along with NGO's and GO's? Give details of last 3 years. (0.5)

The Department of Architectures organized GO's program in different areas. Which are listed below:

1. Wind Power Nepal
2. Gandaki Urja
3. Alternative Energy Promotion Center
4. Good Earth Nepal
5. Women in Science and Engineering Nepal **(See Annex- 44)**

CRITERION 5: INFRASTRUCTURE AND LEARNING RESOURCES (20 MARKS)

A. General Physical Infrastructure

63. Does the institution have a **comprehensive master plan** indicating the existing buildings and the projected expansion in the future? (0.5)

Yes, the campus has a well-illustrated master plan that indicates the existing buildings. The projected expansion for different buildings in terms of physical space has also been attached herewith.

(For Detail Master Plan See Annex 45 A)

64. a. How does the institution plan to meet the need for augmenting the infrastructure to keep pace with academic growth? Produce plan, if any. (0.5)

- Currently we use A- BLOCK building for Main administrations,
- B and C block for Electrical Department and Electronics & Computer Engineering Department for administration, Class rooms and laboratories.
- E block for Architecture Department for administration, class rooms, laboratories
- F block for Civil Department for administration, class rooms, laboratories
- G block for Applied Sciences Department for administration class rooms, laboratories
- D block for Mechanical Department for administration class rooms, laboratories
- Canteen block
- Soil testing lab block
- Heavy lab block
- Boys Hostel (A/B/C Blocks)
- Girls Hostel Block
- Staff Quarters
- Carpentry Section
- CES Block
- ICTC Block
- CIT Block
- Library Block
- MSc Hostel Block
- Water Deep Boring Block for water supply System.
- Academic building for Civil Engineering is going to be built and design is already prepared
- Academic building for newly opened Aerospace Engineering is already designed and going to be built soon.

(See Annex 45 B) MOU with IOE consultancy

b. What support facilities are available for conducting the education programmers in the institution? (0.5) give detail

Pulchowk Campus has the following support facilities for faculties, staffs and students

- 1. Central Library:** Campus has one central library which provides access to research (Case study reports, Thesis reports and other academic research reports). Some departments have their one separate library for benefit of teachers and students.
 - i. Electrical Department
 - ii. Architecture Department
- 2. Center for Information Technology :**
CIT conduct Computerized entrance examination
CIT maintain website of (IOE, Pulchowk Campus and various departments and centers)
CIT gives internet facilities all department with faculty member and students
CIT process new admission for new incomers
- 3. Conference Hall :** There is 400 hundred capacity conference Hall with Multimedia projector and sound system
- 4. Seminar Hall :**
- 5. Robotic Club:** Robotic Club every year organize participation in international robotics
- 6. Pulchowk Campus subscribed the Journal "Science Direct" to promote research activities in the Campus.**

65. Does the institution have provision for regular maintenance of its infrastructure? Provide scheme. (0.5)

The infrastructures are maintained on a regular basis and as per the need. There is a technical team for maintenance propose. There is a procurement committee to buy any necessary items for updating and maintenance works of the campus.

Technical Team

- | | |
|--------------------------------------|---|
| 1. Assistant Campus Chief (Facility) | 1 |
| 2. Facility management officer | 1 |
| 3. Electrical Technical Officer | 1 |
| 4. Civil Engineer | 1 |

5. Civil Sub Overseer	1
6. Senior Carpenter	1
7. Carpenter	2
8. Electrician	2
9. IT Officer	1
10. IT Technician	1
11. Senior Mason	1
12. Helpers for mason	3
13. Senior Plumber	1
14. Plumber	

Procurement committee members of campus

1. **Nita K.C. (Section Officer)**
 2. **Narayan Lal Chitrakar (Store Officer)**
 3. **Purshwottam Karki (Store Assistant)**
(See Annex-46)
66. How does the institution ensure optimum utilization of its infrastructure facilities? Produce the plan. (0.5)
The existing class rooms, laboratories, library, conference hall, are regularly used in the morning shift for Master Degree programs, Day shift graduate programs, and Evening shift for Master Degree programs. **(For detail see Notice for class running BE, MSC & Ph.D.)**
67. Does the institution encourage use of the academic facilities by external agencies? (0.5)
Yes No If yes, give clearly defined regulations.
Being a Central Campus, it has a provision to provide all the existing facilities to the constituent campuses. For example: - IOE Purwanchal Campus, IOE Thapathali Campus, IOE Pachhimanchal Campus. In addition to this, it also provides its facilities to TU and its affiliated institutes based on its existing rules. Different exams for have conducted for Public Service Commission & TU Service Commission. We conduct special practical classes for IOE Pachimanchal Campus students, IOE Purwanchal Campus students and IOE Thapathali Campus students.
68. What efforts are made to keep the institution clean, green and pollution free? Give details (0.5)
Contract man power hired for cleaning, gardening which ultimately led to clean the environment. It also performs the campaign of cleaning the plastics and waste papers around the building premise once a month to reduce environmental pollution. The premises of campus have declared a plastic free zone. There are different dustbins at each block and in the yards to collect the waste on regular basis. The electrical department promotes the use of solar energy as it has a solar cell installed. The CES also operate zero energy house. The campus has well managed gardens with flowers and grasses and plants. There are trees and new trees are planted regularly within campus premises. **(See Annex 47)**
69. Are there computer facilities in the institution that is easily accessible to students and faculty? (0.5)
Number of computer accessible to the students 242 Pcs
Computer accessible to the faculty 105 Pcs
Internet accessible to the faculty All Department including Hostels and Quarter.
Internet accessible to the faculty All Faculties.
70. Give the working hours of the computer Centre and its access on holidays and off hours. (0.5)
Pulchowk Campus has a separate computer section for staffs and students with internet facility. All these are control under the Center for Information Technology (CIT) section during the following time
7 AM- 7 PM CIT Every Day.
71. a. How many departments have computers of their own? Give details. (0.5)
Civil Department, Applied Sciences Department, Electronics & Computer Department, Mechanical Department, Electrical Department and Architecture Department have their own Computer Labs and each lab content 25 Computers.
b. Does the institution have provisions of internet/intercom/CCTV/other facilities Give details (0.5)
All Department have their own Internet Facility, intercom, EPABX system, and CCTVs.
72. Explain the output of the center in developing computer aided learning packages in various subjects during the last three years? (0.5)

Students are encouraged to learn through computer aided packages. Electronic workbench, different simulation packages, animations and three models are used in learning. Computer center is used for most of the necessary events from class information, class assignment, project works through e-media. Learning management such as Moodle is used in providing class notes and teaching materials to students.

73. Is there any provision for maintaining/updating the computer facilities? Provide the details of the system. (0.5) **Technical Team from Facility under CIT.**

The computers and networking systems are regularly maintained and updated to newer software version as per the need of the students to incorporate latest software. The campus has appointed the following staffs to update computers and networking systems in the Campus:

- CIT Director - 1
- CIT Deputy Director -1
- Software programmer -1
- Software Developer -1
- IT Technicians -2

74. Does the institution make use of the services of inter-university facilities? (0.5) (See Annex 48)

The campus often makes the use of inter-university facilities particularly in research activities.

75. What are the various health services available to the students, teacher and other staff? Give details. (and 0.5)

The first aid facilities for primary treatment are available to all the students, teachers and the staffs by Dr. Bharat Bahadur Amatya, Health Inspector Mr. Ananta Shrestha. (See Annex 49)

76. What are the physical and infrastructural facilities available in the sports and physical education Centre? Give details. (0.5) we have premises of following sports facilities in our campus compound

- 1) **Cricket Ground,**
- 2) **Football Ground,**
- 3) **Gym Hall**
- 4) **Basketball Court.**
- 5) **Table Tennis Hall**

77. What are the incentives given to outstanding sports persons? (0.5)

For organizing different sport activities financial support is given by FSU and Campus for different activities.

FSU Provide Diet, jersey and registration fee for Students who are involve sport activities

78. Give details of the student participation during the last year at the university, regional, national and international meets. (0.5)

Area	Participation of Students	Outcomes
District		
National	Inter VC cup cricket tournament, Basketball, Football.	1 st Runner-up
International	Robotics member participate in Japan in 2017 with campus administration staff & Vietnam for Robotics Competition in 2018	Won the prize in Vietnam

(See Annex 8 at section A)

79. Give details of the hostel facilities available in the institution? (0.5)

The students use the hostel as per campus rules and regulations. We have following hostel capacity for students.

1. **BE Boys Hostel Capacity: 380**
2. **BE Girls Hostel Capacity: 60**
3. **MSC Boys Hostel Capacity: 45**
4. **MSC Girls Hostel Capacity: 15**

80. Give details of the facilities for drinking water and toilets. (0.5)

There are different and well equipped toilets for ladies and gents. There are separate toilets for the students and faculty members which are maintained neat and clean with the flush facilities. The campus has drinking water treatment facilities (Euro Guard). In case of non-function of such facilities, the campus has a good facility of drinking water/processed jar water is also provided.

In all Academic Blocks A, B, C, D, E, F, G; there are facilities of drinking water with purified by UV and micro filtering. In all mentioned blocks there are separate facilities for boys and girls toilet.

B. Library as a Learning Resource

81. a. What are the working hours of the library? (0.25)

On working day 10 Hrs. On holidays 0 Prior to examinations 10

b. Does the library provide open-access to students? (0.25) Yes No

82. Mention the total collection of documents. (3.5)

- Books (0.2) 59424 copy
- Current Journals
 - Nepalese (0.2) 2
 - Foreign (0.2) 2
- Magazines (0.2) 5
- Reference Books (1.0) 14000
- Text Books (0.2) 8000+47000
- Refereed journals (0.4) -
- Back Volumes of Journals (0.2) 100
- E- Information Resources (0.4)
 - CD's/DVD's
 - Databases- Thesis, Automatic Data Base for Books
 - Online Journals – Science Direct
 - AV Resources – Through E-library in CIT

1) Special collection (0.5)

Please specify for example : UNO Depository center, World Bank Repository, Competitive Examinations, Book Bank, Old Book Collection, Manuscripts (Books of Engineering)

83. Give the number of books/journals/periodicals that have been added to institution library during the last two years and their cost. (1)

	The year before last		The year before	
	Number	Total cost	Number	Total cost
i. Text books	45000	675000.00	2000	300000.00
ii. Other books	22000	330000	100	20000.00
iii. Journals/periodicals	100			
Any others				
iv.				

Science Direct subscribed since five years at an expense of 18000USD per year for research and all students and faculties have access.

84. Mention (1)

- i) Total carpet area of the institution library (in sq. mts.) [675] (0.25)
- (ii) Total number of departmental libraries [3] (0.25)
- (iii) Seating capacity of the Library [200] (0.25)
- (iv) Open student access to library [all] (0.25)

85. Give the organizational structure of the library. (0.5)

(i) Total number of staff (0.3) 10 persons

a. Professionals (List with qualifications)

1. Sagar Raj Subedi (**MLIBSC**)

b. Semi-professionals 2 Two Trained (Laxmi Sharma-1, Saraswati Ghimire

c. Others 1. Subha Laxmi Hada, 2. Bimala Shrestha, 3. Shanti Awale, 4. Amrita Bhandari, 5. Sailendra Budhathoki, 6. Sumitra Thapa, 7. Tara Bdr. Magar

(ii) Library advisory committee (0.2), Give details (**See Annex-50**)

86. Staff development programs for library (0.5)

(i) Refresher/orientation courses attended Yes

(ii) Workshops/Seminars/Conferences attended Yes

(iii) Other special training programs attended Yes

The campus is committed in enhancing individual capacity of its staff. For this, the department provides training to empower the human resources and is the case with the library staff. The staffs are provided with refresher courses and orientation training. They have also participated in various national and international academic workshops, conferences, seminars and meeting. The librarian Mr. Sagar Raj Subedi leading library management. (See Annex-51)

87. Are the library functions automated? (0.5)

Yes No If yes: Fully automated (0.5) Partially automated (0.25)

Name the application software used (Momulus Library Software)

88. What is the percentage of library budget in relation to the total budget of the Institution? (0.5)

Rs.1074000.00 (0.32% Of Total Budget)

89. Does the library provide the following services/facilities? (10 x 0.1 = 1)

- Circulation Services Yes
- Maintenance services Yes
- Reference/referral service Yes
- Information display and notification services Yes
- Photocopying and printing services No
- User Orientation/Information Literacy Yes
- Internet/ Computer Access Yes
- Inter-Library Loan services No
- Networking services Yes
- Power Backup facility Yes

90. Furnish details on the following (1: to be equally distributed)

- 1) Average number of books issued/returned per day. [250]
- 2) Average no. of users visited / Documents consulted per month [100000]
- 3) Please furnish the information on no. of Log- ins in to the E-Library Services/E- Documents delivered per month. [No]
- 4) Ratio of Library books to number of students enrolled [1/10]

91. Furnish the following details: (0.25 x 4 = 1)

- Percentage of regular students appearing for the exam.98% (See Annex -52)
- Dropout rate (drop out from the course) 2%
- Progression to further study (Bachelors to Master, Master to MPhil /PhD) =22
- Prominent positions held by alumni NEA MD-Kul Man Ghising, Civil Aviation 10th level- Deepak Chand, Civil Aviation 11th level - K.P.Simkhada, IOE Dean- Tri Ratna Barjacharya Director Dr. Mahesh Bhattarai KUKL, Deputi Director Civil Aviation Mr. Babu Ram paudyal. CEO Mr. Sushil Gyawali Reconstruction Office.

92. How many students have passed the following examinations in the last five years? (0.25 x 4 = 1)

- Nepal Civil Services Examinations - 1200 around
- Other employment related examinations – 350 around
- International level entrance examination – 150 around
- Others (please specify) – 300 around

93. Does the institution publish its updated prospectus annually? (1)

Yes (1) No (0) If yes, what are the contents of the prospectus?

The prospectus contains the information on the goals and vision of the campus including the fee structure for the semester system and detail of intake capacity. It also includes the information on the academic achievements of the students and faculties. (See Annex-53)

94. What kind of financial aids are available to students from the government, the institution and others? Give details. (0.5) **The annual fund provided by Government to run the Institute also used for the scholarship to deserving students on the basis of their preformation. (See Annex - 54)**

95. Mention the number of students who have received financial aid during the last two years. (0.5)

Financial	Year before last 2073	Year before 2074
i. Merit scholarship	1703	1720
ii. Merit-cum-Means		
Any others		
v. Private sector		

The campus provides merit scholarships to students based their academic results. A boy and a girl who top the entrance examinations and end –semester examination are automatically qualified for and receive merit scholarship. (See Annex 55)

96. Does the institution have an employment cell and a placement officer who offers career counseling to students? If yes, give details of the cell and its office. (0.25 x 2 = 0.5)

i. Employment cell: Role:

ii. Placement officer: Role:

Campus does not have permanent employment cell but it is temporary created under the leadership of campus chief with assistant campus chief and senior faculty member. When the teaching staff and administrative staff are needed

97. Do teachers participate in academic and personal counseling? (0.5)

Yes No If yes, give details as to how they are involved.

There is an academic and personal counseling cell in Campus where the faculty members are involved in counseling the students especially in research fields and also the new comer students are counseled about the importance of studying in engineering.

98. How many students were employed through placement service during the last year? (1)

	UG students	PG students	Research scholars
i. Local firms/companies	200 Average	150 Average	50 Average
ii. International firms/companies	125 Average	50 Average	25 Average
iii. Government	500 Average	75 Average	50 Average
iv. Public (semi-government) sector	100 Average	50 Average	25 Average

(See Annex – 56)

99. Does the employment cell motivate the students to seek self-employment? (1)

Yes No If yes, how many are self-employed (data may be limited to last 5 years)?

Faculty members, seniors and alumni always drive fellow students towards self-employment.

100. Does the institution have an Alumnae Association? (0.5)

Yes No If yes, indicate the activities of the Alumni Association.

There is an Alumni Association (IOE-Alumni Association) which generally performs the activities related to environmental awareness and motivates the graduates in different social works and research work. The alumni also organizes annual gate together/picnic programs, greeting exchange programs etc.

(See Annex-57)

101. How the policies and criteria of admission are made clear to prospective students? (0.5)

Being a public institute, Campus has a provision to provide all the information to general people and concern students through newspapers, web site, and brochures. (See Annex-58)

102. State the policy of the institution with regard to international students. (0.5)

Through Foreign Kota. AS per Rules of Admission Brochures decided by IOE Dean Office.

(See Annex-59)

103. What are the support services given to international students? (0.5)

Through Website & Admission Information Broachers.

International student service office Special accommodation Induction courses
Socio-cultural activities Welfare program Policy clearance Visa Support

We conduct separate interview for foreign students. (See Annex-60)

104. What are the recreational / leisure time facilities available to students? (1)

Indoor games Outdoor games Nature Clubs Debate Clubs
Student Magazines Cultural Programs Audio Video facilities

Any others Basket Ball, Internet Facilities & separate TV Room in Girls Hostel, Boys Hostel & MSC Hostel.

CRITERION 7: INFORMATION SYSTEM (10 MARKS)

105. Is there any cell in the institution to analyze and record various academic data? (2)

Yes (2) No (0) If yes, mention how does the cell work along with its compositions?

Administration Unit

Academic Administration Section

- Update record of each student
- Distribution of character certification
- Ranking of students as per the result for the distribution stipend /scholarship
- Online exam form fill up and the distribution of admit cards for final exam.
- Internal evaluation marks collection from the individual department and submit to the exam control division.

106. What are the areas on which such analysis is carried out? (1.5),

The analysis is carried out on following areas

- i. Enrollment data
- ii. Thesis research area categorization
- iii. Academic performance
- iv. Publication data (**For Detail See Annex -35**)
- v. Scholarship, NCELL Scholarship, Free ship.

The enrollment data, publication data are attached. (**See Annex 61**)

107. How these analyzed data are kept in the institution records? (1)

All the Record keeping is done by academic administration unit.

The data are kept in the institution records in both hard and soft form. The hard copies are recorded in information cell and library and soft copies are recorded in the computer of the information cell.

108 Are these information open to the stakeholders? (1)

Yes (1) No (0) If yes, explain how they are disclosed?

For research and publication data, all title of the researches and publication are kept in the website of Pulchowk Campus. For details and reading whole document they can contact library. The enrollment and academic performance data can be obtained from information cell. To obtain data, a request/recommendation letter explaining purpose is necessary to submit in the campus administration.

109 Are the methods of study and analysis also open to the stakeholders? (1)

Yes (1) No (0)

Most of the methods are made open to user except when forbidden by agreement with data producers/data generator or grant provider. Campus encourages right details of methodology in research report and thesis reports.

110. Is there any mechanism to receive comments or feedbacks on the published data? (1)

Yes (1) No (0) If yes, explain how does it happen?

Yes, there is a mechanism to collect the feedback through notice as well as through website.

Campus organizes sharing meetings, workshops, seminars and round-table discussions for the dissemination of published data. During such events, Campus welcomes comments, feedbacks and suggestions from the experts and scholars on the published data. At the same time, campus seeks areas for further improvement, corrections and development. The campus acknowledges that such interactions are really important and essential for overall improvement of the information. The comments, feedbacks and suggestions provided by different experts, stakeholders are collected and discussed thoroughly. At last, necessary corrections are made and suggestions are incorporated in the report to be produced in the future.

111. What are the impacts of such information system on decision making process? (1.5)

Produce in brief the impact analysis.

It has systematized the evaluation procedure and also made the system quick and constructive feedback from the student through which the quality of work has been enhanced.

Campus has not carried out impact analysis yet but in future the impacts of such information system on decision making process will be carried out.

112 Give examples of quality improvements initiated due to the use of information system.

Pulchowk Campus is the first choice of the cream students, with highest rank among the qualified applicants appeared in Entrance exam of IOE, to enroll for engineering education.

3 Internal Assessments & Final Regular Exam have been conducting and separate back paper exams are held as per pre-published **Academic Calendar**. Student groups on Face book utilize transmitting information regarding academic activities, in-addition to this; major project works and thesis works are also uploaded in campus library and campus web site. There is a facility of e-library books searching in main library of campus through internet. All students have excess to the journal science direct.

CRITERION 8: PUBLIC INFORMATION (10 MARKS)

113. Is there public information cell within the institution? (2)

Yes (2) No (0) if yes, give details.

There is provision to maintain information cell within the campus. Important information disseminated through daily magazine, campus web site & via notice board display. Under the knowledge management and information cell, campus library, store and computer section established to provide information to the public. Library provides access to research (case reports, thesis reports and other academic research reports). Store give access to published documents and CIT provide web information.

Public Information

- Center information technology (CIT)
- Help desk
- Notice Board
- Web Sites (**ioe.edu.np, pcampus.edu.np, ioe.exam.edu.np, ioe.cit.edu.np**)

114. What are the areas of information published by the cell? (1)

Academic (0.25) Administration (0.25) Financial (0.5) All (1.0)

The information cell produces academic information such as enrollment data keeps records of each student. Theses researches area categorized based on research outputs, contribution to the science and society. Further, Campus has initiated Tracer study of its graduates.

- Administration Notice
- Tender Notice
- Training
- Score Card
- Journal Publication
- Internal appointment Notice for staff and faculties.

115. Where are these information published? (1.5)

Campus publishes information for stakeholders and public on following medias:

National Daily Newspapers (0.5) Magazines (0.5) (0.5) **Campus Web site**

116. How often are these information published? (1)

Yearly (1) in 4 years (0)

Journal of Institute of Engineering is a flagship publication of Pulchowk Campus and is produced on a regular basis. Other academic publications are published on an ad-hoc basis. Annual report of the Campus is published annually.

117. Mention all such publications of last two years (1)

Areas	Year 1, place of publication	Year 2, place of publication
IOE Activities & Progress Report for Curriculum.	IOE MIRROR	INNOVATION Magazine
Architecture & Planning	VAASTU	Journal of the department of Arch.

(See Annex 61)

118. Does the cell also collect responses, if any, on the published information? (1)

Yes (1) No (0) If yes, give details

The campus conducts meeting, seminars and workshops for the dissemination of published information. During the events, general feedback are collected. At the same time, campus seeks area for further improvements, corrections and development. The campus acknowledges that such interactions are really important and essential for overall improvement of the information.

119. Is there any system to evaluate the impact of public information on quality improvements? (1)

Yes (1) No (0) If yes, how these impacts are measured?

During various departmental meetings (Faculty, Subject committee, Research Committee and Standing Committee) the feedbacks collected are discussed thoroughly, necessary corrections are made and suggestions are incorporated. The campus annually arranges general and annual meeting with faculty members, administration and stakeholders to address the points raised by the public regarding the quality improvement.

120. Mention some positive impacts made by the public information practice. (1.5)

1. According to the need of the industries and end users, Campus always attempts to include the new subject in its curriculum in addition to this; also attempting to modify existing classical degrees into the new one to address the need of society.
2. IOE recently changed existing program Bachelors in Electronics and communication into Bachelors in **Electronics Communication and Information System** with revised syllabus.
3. Campus has also introduced Bachelors in Aerospace Engineering from academic year 2075-76.
4. In near future, it is also planning to open Bachelors in Chemical Engineering and Biomedical Engineering. These all activities are playing positive impact on public.
5. Infra-structure Development inside collage area are going to design & estimating phase for Civil and Mechanical Department by IOE Consultancy.
6. Design and Estimating phase for Graduate Building in the middle of Campus Complex.
(See Annex- 62)

PART III

ANALYSIS OF CRITERION – WISE INPUTS

At present, Pulchowk Campus continuously devoting to strengthen its academic, administrative and financial status. Pulchowk Campus is also aware of its strengths, weaknesses, opportunities and challenges to analyze its overall progress. The self-study assessment team has adopted strengths, weakness, opportunities and challenges (SWOC) analysis for the campus and presented below, which would be a fruitful exercise for the campus to plan its course of action.

1) Policy and Procedures

Pulchowk Campus is running under the Tribhuvan University, Institute of Engineering which is one among five institutes. IOE have a Management Committee, which is responsible for setting the policies to run and regulate IOE and Campuses under it and its activities. The committee comprises of the representatives of stakeholders, teachers, non-teaching staff, students, guardians, local government, donors, campus administration and department heads. The Dean of IOE chairs the committee and nominates a member secretary from the Assistant Deans.

The IOE formed a high level committee named “Standing Committee” that works for the overall internal quality monitoring and checks. The committee comprises of 10 members headed by the dean of IOE that include all assistant deans, campus chiefs as members, representatives of the departments and campuses are running in the campuses. Committee hold meetings to monitor and control the quality of education within the institution. Since the campus is one of the decentralized constituent campuses of Tribhuvan University that has enjoyed certain freedom to manage and run the institution, the campus is mostly guided by its dean’s office in Pulchowk through the rules and regulations of the university. Apart from being dependent on the dean’s office of IOE, the campus has executive authority to run campus as per rules and regulations to meet the local needs of the institution. There are specified job responsibilities of departments, units and individuals besides the specifications mentioned in the university rules and regulations.

Efforts have been undertaken for effective resource mobilization that avails in the campus. The main sources of grants are the government fund via UGC/Tribhuvan University and the students fee contribute substantially in this regard.

At the beginning of each financial year, campus prepares budget under different heads according to the need and availability of fund. The budget is sent for approval to the university authorities and TU executive council via IOE dean’s office. Periodic review of the budget expense is made for optimal utilization. Internal as well external audit is done every financial year. Thus, the available resource is optimally allocated and utilized through efficient financial resource management. The dynamic leadership of the campus chief, the active participation of the staffs, both teaching and none-teaching, in academic and administration together with effective internal coordination and monitoring by the IOE/University and UGC make it possible for the campus to achieve its goals.

All administrative bodies have the faculty representation. Thus academic and administrative planning in the institution is well coordinated. At the beginning of the academic year, various

department and the members of administration scrutinize the work load and assess the need for staff recruitment and other infrastructural requirements. This is further scrutinized by the dean's office. New recruitment is carried out through a selection process satisfying the university criteria for all posts.

The institution has a self-appraisal method to evaluate the performance of the faculty in teaching and research programs. Skill up-gradation and training programs are conducted for the non-teaching staff members when required. The campus constantly organizes orientation and faculty development programs. The faculty is encouraged for research and project work leading to their academic development. Thus the management of human resource is meticulously planned and executed. SWOC Analysis: Policy and Procedures

Strengths	Weaknesses
<ul style="list-style-type: none"> • Constituent campus of Tribhuvan University • Visionary leadership • Well laid out participative management system • Well laid out plans and policies • Vision to convert as a deemed university • 5 years Strategic Plan • Academic audit and annual audit provision • Promotion of a transparent and participatory governance structure • Easy availability of the administrators to the students • Cohesive environment in the campus • Active involvement of the alumni • To meticulously plan the human resources plan for the execution of opportunities • To encourage more faculty members to participate in making the strategic plan • To create opportunities for more collaborations with other universities and institutions at the national and international levels. • To create opportunities to further open up participative management in governance and leadership. • To invite advisory participation of the stake holders • To hire experts in making goals and objectives of the institution. • Multidisciplinary approach adopted by the government. 	<ul style="list-style-type: none"> • Lack of autonomy in formulation of its policies and strategy as the campus has to get IOE approval in all major activities. • Reluctance in accepting leadership. • Bureaucratic structure of the IOE/university • Restricted autonomy to the IOE by the university • Local level academic rules and regulations • No independent policies to convert adjunct faculty to full time basis (monthly salary basis) • Lack of separate human resource planning cell • Employment of prompt feedback mechanism in various aspects of conducting administrative acts. • Well defined job description and job specification • Prioritization of work and work schedule • Rules about full time faculty and staff. • Overcome political influences in the campus, IOE and university status • Further extension of collaboration at national and international levels to improve the overall quality of education. • To identify motivators who will involve the staff more in institutional activities, research and responsibility • Lack of focus towards studies amongst students due to external distraction.

2) **Curricular Aspects**

The campus being a constituent campus of Tribhuvan University, it adapts the syllabi prescribed by the IOE. However, the campus has plans to introduce innovative and creative methods for delivery of the curriculum. Faculty members are encouraged to attend the faculty development programs organized by the IOE. They are deputed to attend workshops conducted for designing the curriculum. To fill the identified gaps in curricula, the value-added courses are planned. The academic calendar issued by the IOE is followed for the planning and implementation of the action plan. The syllabus is being updated time to time by IOE as per the student's expectations and industry need. The campus obtains feedback from various stakeholders, which is studied and analyzed in the direction of content, syllabus design, faculty involvement, quality delivery and conveyed to the concern faculty for further necessary actions.

3) **Teaching Learning & Evaluation**

IOE conducts the computerized Test Exam for BE & MSc Entrance every year since 2014. It also conducts aptitude test for Architecture group and interview for foreign students.

All departments provide counseling to the students as per need and especially to the academically weak and disadvantaged students to bridge their knowledge gap. Campus provides additional time during final exam to disable students according to their disability.

Campus encourages to the faculties to prepare lesson/teaching plans on their subjects of instruction that should be approved by the subject committee. The subject committee finalizes all lesson plans.

As per academic calendar, two internal assessments need to conduct and a student should pass so as to qualified to sit in final exam. Campus recruits faculties and staffs using internal resource as per requirement with the approval from IOE.

4) **Resources, Consultancy and Extension**

Pulchowk Campus allocated a Research Budget of 6.27% of total operating budget NRs. 80,85,173.38 (In words Eighty Lac Eighty Five Thousand one hundred Seventy Three & Paisa Thirty Eight Only). IOE has Research committee, Research Management cell, and research coordinator to carry out research by MSc and Ph.D. students.

IOE is providing Rs.60000|- per semester for Top ranked 5 students, Rs.40000|- for subsequent ranked 8 students & Rs.30000|- for 3 other students in the MSESSED program.

5) **Infrastructures and Learning Resource**

IOE Pulchowk Campus is constructing its infrastructures following a comprehensive master plan indicating the existing buildings and projected expansion in the future. Campus is planning to construct Graduate Building for all MSc programs and academic blocks for Aerospace Engineering and Civil Engineering.

Regular maintenance of Campus infrastructures have been carried out by facility management unit headed by assistant campus chief. There are is a separate technical team for maintenance propose.

- Carpentry section with well-equipped machinery
- Plumbing section
- Electrical section
- Mason section

Campus has a separate cell for store keeping and procurement. Masters programs are running in morning, day and in afternoon shifts to utilize its human resources and infrastructures effectively. However, all undergraduate programs are running in day shift

only. Campus is outsourcing contract manpower for cleaning and gardening for whole campus complex.

Campus is availing internet and online subscribed journals facilities to faculties, staffs and students which is managed and timely updated by CIT section.

Campus is having a health clinic for primary treatments of faculties, staffs and students, where Dr. Bharat Bahadur Amatya (on part time basis) and health inspector Mr. Ananta Shrestha (full time staff) are providing services.

Campus have sports facilities of following Areas:-

- Cricket Ground
- Football Ground
- Basket Ball Ground
- Gym Hall
- Indoor games

6) **Students Supports and Guidance**

Campus publishes admission booklet and avail for students at the time of admission. Academic Administration Section, headed by Assistant Campus Chief, is regularly collecting and updating all the academic records of the graduate, master degree and Ph.D. students. All the record keeping in Academic Section are kept in data base record. The data are kept in the institution records in both hard and soft form. The hard copies are recorded in information cell and library and soft copies are recorded in the computer of the information cell.

All titles of the researches and publications are kept in the website of Pulchowk Campus. The enrollment and academic performance data of students can be obtained from academic administration section. To obtain data, a request/recommendation letter explaining purpose is necessary to submit in the Campus. Campus encourages right details of methodology in research report and thesis reports. IOE organizes idea sharing meetings, workshops, seminars and round-table discussions for the dissemination of published data and related materials. During such events, we welcome comments, feedbacks and suggestions from the experts and scholars on the published data and other related materials in the Campus. At the same time, campus seeks areas for further improvement, corrections and development. Pulchowk Campus acknowledges that such interactions are really important and essential for overall improvement of the information. The comments, feedbacks and suggestions provided by different expert, stakeholders are collected and discussed thoroughly during campus management meeting. At last, necessary corrections are made and suggestions are incorporated in the report to be produced in the future. Top ranked students in entrance examination of IOE are selecting Pulchowk Campus for their study. The Top ranked students get stipend from regular basis and full fee basis from campus.

7) **Information System**

We have Academic Record Section known as Academic Administration which is regularly collecting and updating all the academic records of the graduate and master degree students and also Ph.D. students. All the Record keeping in Academic Section are kept in data base record. The data are kept in the institution records in both hard and soft form. The hard copies are recorded in information cell and library and soft copies are recorded in the computer of the information cell. Or research and publication data, all title of the researches and publication are kept in the website of IOE. For details and reading whole document they can contact library. The enrollment and academic performance data can be obtained from information cell. To obtain data, a request/recommendation letter explaining purpose in necessary to submit in IOE. Most of the methods are made open to user except when forbidden by agreement with data producers/data generator or grant provider. IOE encourages right details of methodology in research report and thesis reports. IOE organizes sharing meetings, workshops, seminars and round-table discussions for the dissemination of published data. During such events, IOE welcomes comments, feedbacks and suggestions from the experts and scholars on the published data. At the same time, campus seeks areas for further improvement, corrections and development. The campus acknowledges that such interactions are really important and essential for

overall improvement of the information. The comments, feedbacks and suggestions provided by different expert, stakeholders are collected and discussed thoroughly. At last, necessary corrections are made and suggestions are incorporated in the report to be produced in the future. It has given the opportunity to select the cream students with highest rank among the qualified applicants appeared in Entrance exam of IOE.

8) **Public Information**

Campus maintained its web site with all necessary information. To disseminate research works, related students projects and other works, departmental exhibitions took place every year. Many people including school students observe these exhibitions and aware about what is going in the campus.

Campus annually arranges general annual meeting with faculty members, administration and stakeholders to address the point's raised by the public regarding the quality improvement. According to the need of the society IOE always attempts to include the new subject in its curriculum in addition to this, also attempting to modify existing classical degrees into the new one.

1. IOE recently revised the existing bachelors in electronics and communication engineering program to bachelors in electronics and information system engineering.
2. It has started bachelors in aerospace engineering.
3. It is planning to start bachelors in chemical engineering and biomedical engineering programs.