नेपाल इन्जिनियरिङ्ग परिषद्

इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, २०६६ (चौथो संशोधन २०७० सहित)



नेपाल इन्जिनियरिङ्ग परिषद् Nepal Engineering Council

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1 NEC norms and standards विषय सूची

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नेपाल इन्जिनियरिङ्ग परिषद् ऐन, २०४४ को दफा ३७ को उपदफा (२) तथा नेपाल इन्जिनियरिङ्ग परिषद् नियमावली, २०४७ को नियम १६ ले समेत दिएको अधिकार प्रयोग गरी नेपाल इन्जिनियरिङ्ग परिषद्ले देहायका विनियमहरु बनाएको छ ।

परिच्छेद - १ प्रारम्भिक

१.९ <u>संक्षिप्त नाम र प्रारम्भ</u>ः

- यी विनियमहरुको नाम "इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, २०६६" रहेको छ ।
- २) यो विनियमावली तुरुन्त प्रारम्भ हुनेछ ।

9.२ परिभाषा : विषय वा प्रसंगले अर्को अर्थ नलागेमा यस विनियमावलीमा,

- क) "ऐन" भन्नाले नेपाल इन्जिनियरिङ्ग परिषद ऐन, २०४४ सम्भनु पर्छ।
- ख) "नियमावली" भन्नाले नेपाल इन्जिनियरिङ्ग परिषद् नियमावली, २०५७ सम्भन् पर्छ।
- ग) "विनियमावली" भन्नाले इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, २०६६ सम्भन् पर्छ ।
- घ) "परिषद्" भन्नाले ऐनको दफा ४ बमोजिम गठन भएको नेपाल इन्जिनियरिङ्ग परिषद् सम्भननु पर्छ
- ङ) "अध्यक्ष" भन्नाले परिषद्को अध्यक्ष सम्भनु पर्छ।

- च) "रजिष्टार" भन्नाले परिषद्को रजिष्टार सम्भन् पर्छ ।
- छ) "पदाधिकारी" भन्नाले परिषद्को अध्यक्ष, उपाध्यक्ष तथा सदस्य-सचिव सम्भन् पर्छ।
- ज) "सदस्य" भन्नाले परिषद्को सदस्य तथा पदाधिकारी समेतलाई सम्भतनु पर्छ।
- भः) "अख्तियारवाला" भन्नाले यस विनियमावली बमोजिम प्रदत्त अधिकारको प्रयोग गर्ने परिषदको पदाधिकारी, सदस्य वा व्यक्तिलाई सम्भन पर्छ।
 - ञ) "संस्था" भन्नाले नेपाल राष्ट्र भित्र कम्तीमा स्नातक स्तरको इन्जिनियरिङ्ग शिक्षा प्रदान गर्न संचालनमा रहेका वा संचालन गर्न स्वीकृति माग गर्ने विश्वविद्यालय/क्याम्पस/कलेज आदिलाई जनाउँछ ।
 - ट) "अनुसूची" भन्नाले यस विनियमावली अन्तर्गतका अनुसूचीहरु सम्भन् पर्छ।
 - ठ) "पूर्वाधार" भन्नाले संस्थाले स्वीकृति प्राप्त गर्नको लागि पूरा गर्नुपर्ने अनुसूची ७ बमोजिमको भौतिक तथा अन्य पूर्वाधार (Norms and Standard) लाई जनाउँछ ।
 - ड) "कार्यक्रम" भन्नाले इन्जिनियरिङ्ग शिक्षा प्रदान गर्न चाहेको कार्यक्रम (Programe) भन्ने सम्भन् पर्छ
 - ▶ (ढ)"पुरानो संस्था" भन्नाले स्नातक तहको इन्जिनियरिङ्ग विषय अध्यापन गराउने संस्था जसको कुनै पनि कार्यक्रमलाई परिषदले अस्थायी वा स्थायी स्वीकृति प्रदान गरी सकेको छ । यस अन्तरगत प्रथम चरणको अवस्थामा स्वीकृति पाईसकेका संस्था समेतलाई जनाउँछ ।
- ▶ (ण) "नयाँ संस्था" भन्नाले हाल स्थापित संस्था वा पहिले स्थापित भइ हालसम्म एक पटक पनि परिषद्बाट अनुगमन⁄मुल्याङकन नगराएका र स्वीकृति नपाएका संस्थालाई जनाउँछ।
- ► (त) "पूर्णकालिन" भन्नाले अनुसूची ७ को दफा 9.1.6.1 (a) मा परिभाषा गरे अनुसारको शिक्षकहरु सम्भन्पर्दछ ॥

9.३ विनियमावलीको ब्याख्या

- 9) अख्तियारवालाले यस विनियमावली प्रयोग गर्दा गरेको ब्याख्याबाट कुनै संस्था वा ब्यक्ति विशेषलाई मर्का परेमा त्यस्तो मर्का पर्ने संस्था वा व्यक्ति विशेषले रजिष्ट्रार मार्फत परिषद् समक्ष निवेदन दिन सक्नेछ ।
- उपविनियम 9.३ (9) बमोजिम पर्न आएको निवेदनको सम्बन्धमा परिषद्ले गरेको व्याख्या अन्तिम हुनेछ ।

9.४ विनियमावलीको जानकारी प्राप्त गर्नुपर्ने

यस विनियावलीमा व्यवस्था भएका प्रावधानहरुको बारेमा जानकारी प्राप्त गर्नु प्रत्येक संस्थाको कर्तव्य हुनेछ ।

चौथो संशोधनद्वारा संशोधित

#२.१ नयाँ संस्था स्थापना गर्न सहमती लिनुपर्ने

9) इन्जिनियरिङ्ग शिक्षा प्रदान गर्ने उद्देश्यले स्थापना गर्न चाहेको संस्थाले अनुसूची 9 बमोजिमको ढाँचामा अनुसूची ९(9) वमोजिमको सहमति निवेदन शुल्क बुफाई परिषद्मा निवेदन दिनु पर्नेछ ।

२) उपविनियम २.९(९) बमोजिम पेश भएको निवेदन उपर आवश्यक जाँचबुफ गर्दा त्यस्तो संस्था स्थापना गर्न दिन उपयुक्त हुने वा नहुने सम्बन्धमा ६० दिन भित्र परिषद्ले निर्णय गर्नेछ ।

३) उपविनियम २.९(२) बमोजिम परिषद्ले जाँचबुक्त गर्दा कुनै कागजात नपुग हुन गएमा निवेदकलाई त्यस्तो कागजात पेश गर्न लगाउने छ ।

४) उपविनियम २.१ (३) बमोजिम परिषद्ले माग गरेको कागजात बुकाउनुपर्ने दायित्व निवेदकको हुनेछ।

- (२) उपविनियम २.१ (२) बमोजिम संस्था स्थापना गर्न^४ नदिने भएमा निवेदकलाई ७ दिन भित्र जानकारी दिनुपर्नेछ ।
- ६) उपविनियम २.१ (२) बमोजिम संस्था स्थापना गर्न दिने भए उपविनियम २.१(४) बमोजिम सूचना पाएको १४ दिन भित्र निवेदकले अनुसूची ९(१) बमोजिमको सहमति शुल्क बुफाउनुपर्नेछ ।
- ७) उपविनियम २.९(६) बमोजिम सहमति शुल्क बुफाएको ३ दिन भित्र अनुसूची २ बमोजिमको ढाँचामा रजिष्टारले सहमती दिने छ।

२.२ नयाँ संस्था संचालन गर्न निवेदन दिने

विनियम २.१ बमोजिम सहमती प्राप्त गरी स्थापना भएको संस्थाले कार्यक्रम संचालन गर्न अनुसूची ३ बमोजिमको ढाँचामा अनुसूची ९(२) र ९ (३) बमोजिमको शुल्क बुफाई परिषद्मा निवेदन दिनु पर्नेछ ।

२.३ यो विनियम आउनु अघि संचालनमा रहेका संस्थाले निवेदन दिने

इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, २०५९ लागू भए पछि परिषद्को स्वीकृति विना सञ्चालनमा रहेका संस्थाले अनुसूची ४ बमोजिमको ढाँचामा अनुसूची ९(१) मा उल्लेखित शुल्कको दोब्बर शुल्क बुफाई परिषद्मा निवेदन दिनुपर्ने छ ।

▶

४ पहिलो संशोधनद्वारा भिकिएको

[#] मिति २०७०/१० /१९ को परिषदको बैठकले निलम्बन फ्कुवा गरेको ।

चौथो संशोधनद्वारा भिकिएको

२.४ कार्यक्रम थप/घट तथा विद्यार्थी भर्ना संख्या थप/घट गर्न निवेदन दिने

स्वीकृत संस्थाले कार्यक्रम थप/घट तथा विद्यार्थी संख्या थप/घट गर्न परिषद्को स्वीकृतिको लागि अनुसूची-६ बमोजिमको ढाँचामा अनुसूची-९(२) मा तोके बमोजिमको शुल्क बुफाई परिषद्मा निवेदन दिन् पर्नेछ ।

> परिच्छेद - ३ स्वीकृति

३.१ निरीक्षण गर्ने

यस विनियमावली बमोजिम निवेदन प्राप्त हुन आएपछि परिषद्ले बढीमा ४ जना सम्मको निरीक्षण समिति गठन गरी सम्बन्धित संस्थाको निरीक्षण गराउनेछ ।

३.२ मुल्यांकन प्रतिवेदन प्राप्त गर्ने

निरीक्षण समितिले संस्थाको निरीक्षण गरेको सामन्यतय ३० दिन भित्र मूल्यांकन प्रतिवेदन परिषद्मा पेश गर्नेछ ।

३.३ अस्थायी ^४ स्वीकृति प्रदान गर्ने

[▶] ३.३.(१) नयाँ संस्थाको हकमा अनुसूची ८ को प्रथम चरण बमोजिम प्रत्येक उपसमुहमा न्युनतम ४०% अंक भार प्राप्त गरी औसत ६०% अंकभार प्राप्त गरेमा अस्थायी स्वीकृतिको लागि सिफारिस गर्न सकिनेछ । प्रत्येक समुहमा ४०% अकंभार नपुगेको अवस्थामा परिषदले प्रत्येक पटक निर्णयको मितिबाट ३ महिना नबढाई अधिकतम दुई पटक सम्मको लागि म्याद थप्ने व्यवस्था गर्न सक्नेछ । कार्यक्रम शुरु नभइसकेको अवस्थाका यी निरिक्षण प्रथम चरण अनुसार हुने छन् । कार्यक्रम संचालनमा रहेको अवस्थामा दोश्रो र त्यस पछीका निरिक्षण दोस्रो चरण अनुसार हुनेछन् ।

▶३.३.(२) पुरानो संस्थाको हकमा अनुसूची ८ को समुह 2(a), समुह 4 र समुह 6 प्रत्येकमा न्युनतम ६०% सहित औसत अंक ७०% प्राप्त गरेमा अस्थायी स्वीकृतिको लागि सिफारिस गर्नेछ । उपरोक्त आवश्यकता पुरा नभएको अवस्थामा परिषदले प्रत्येक पटक निर्णयको मितिबाट ३ महिना नबढाई अधिकतम तीन पटक सम्मको लागि म्याद थप्ने व्यवस्था गर्न सक्नेछ । यस अवधि भित्रमा पनि सुधार नआएमा संस्थाहरुको स्वीकृति निलम्बन वा खारेजीको अवस्थामा जानेछन् । अनुगमन/मूल्याकंनको कामा रहेको पुरानो कार्यक्रमको अस्थायी स्वीकृति न पाइकन नयाँ कार्यक्रमको लागि प्रक्रिया अगाडी बढाइने छैन र अनुगमन/मूल्याकंन पनि गरिनेछैन ।

५ पहिलो संशोधनद्वारा थप

- ३.३.(३) माग अनुसारका कार्यक्रममा इन्जिनियरिङ्ग शिक्षा प्रदान गर्न सबै मापदण्ड पूरा नभएको तर केही कार्यक्रम चलाउन आवश्यक पूर्वाधार भएको अवस्थामा परिषद्ले निम्न अनुसार गर्न सक्नेछ ।
 - क) स्वीकृति माग गरेको कार्यक्रमहरु मध्ये आशिकलाई मात्र स्वीकृतिको लागि
 नेपाल सरकार समक्ष सिफारिस गर्ने ।
 - ख) स्वीकृति माग गरेका कार्यक्रमहरुमा वा ती मध्ये आशिंक कार्यक्रममा मात्र माग गरेको भर्ना संख्या घटाई कम विद्यार्थी भर्नाको स्वीकृतिको लागि नेपाल सरकार समक्ष सिफारिस गर्ने ।
 - ३.३(४) उपविनियम ३.३ (१) र (३) बमोजिम शिक्षण संस्थालाई कार्यक्रम संचालन गर्न नदिने निर्णय गरेमा उपविनियम २.२ बमोजिम बुभाएको शुल्क मध्ये कार्यक्रम स्वीकृति निवेदन शुल्क निवेदकलाई फिर्ता दिन्पर्नेछ ।

३.४ स्थायी स्वीकृति

अस्थायी स्वीकृति प्राप्त गरेका संस्थाले दुई व्याच स्नातकोपाधि पूरा गरी, पूर्णकालिन शैक्षिक जनशक्ति, शिक्षकको बृति विकास र अनवरत शिक्षा प्रत्येकमा न्युनतम अर्थ अंकभार सहित औसत अंकभार ९०% प्राप्त गरी अनुसूची-४ को ढाँचा बमोजिम स्थायी स्वीकृतिका लागि निवेदन दिएको अवस्थामा परिषद्वाट गठित निरीक्षण समितिको प्रतिवेदन प्राप्त भएपछि परिषद्ले स्थायी स्वीकृति प्रदान गर्न सक्ने छ ।

३.५ अस्वीकृत गर्ने ९

*विनियम ३.३(१) वा ३.३(२) को आवश्यकता पूरा नगरेका संस्थालाई परिषदले अस्थायी स्वीकृति प्रदान गर्न सिफारिस गर्नेछैन ।

९ पहिलो संशोधनद्वारा संशोधित

<u>परिच्छेद - ४</u>

स्वीकृति निलम्बन तथा खारेजीको व्यवस्था

४.१ विद्यार्थी भर्ना रोक लगाउने

▶यस विनियमावली बमोजिम तोकिएको समयावधीमा तोकिएका शर्तहरु पूरा नगर्ने संस्थालाई परिषदले नयाँ विद्यार्थी भर्ना गर्न नपाउने गरी सार्वजनिक सूचना जारी गरी रोक लगाउन सक्नेछ । त्यसरी विद्यार्थी भर्ना रोक लगाएको अवस्थामा संस्थामा अध्ययनरत विद्यार्थीको पठन पाठन सुनिश्चित गराई पढाई पूरा गराउने दायित्व सम्बन्धित संस्थाको हुनेछ ।

४.२⁹⁰

४.३ अस्थायी/ स्थायी स्वीकृति निलम्बन / खारेजीः

यस विनियमावली बमोजिम अस्थायी/स्थायी स्वीकृति प्रदान गरेकोमा देहायको अवस्थामा परिषदले त्यस्तो स्वीकृति निलम्बन/खारेजी गर्न नेपाल सरकार समक्ष सिफारिस गर्न सक्नेछ। (क) परिषदबाट प्राप्त स्वीकृति भन्दा बढी संख्यामा विद्यार्थी भर्ना गरेमा ।

- (ख) स्वीकृति प्रदान गरिएको भन्दा बढी कार्यक्रम संचालन गरेमा ।
- (ग) स्वीकृति प्रदान गर्दा उपलब्ध भएका पूर्वाधारको न्युनतम स्तर घट्न गएमा ।
- (घ) परिषदले समय-समयमा तोकेका शर्तहरुको पालना नभएमा ।

परिच्छेद - ५

अनुगमन

[•] ४.१ परिषद् तथा संस्थाको दायित्व

- क) स्वीकृत प्राप्त संस्थाको अद्यावधिक विवरण परिषद्ले राख्नेछ ।
- ख) परिषद्ले समय समयमा मागेको विवरण परिषद्मा पठाउनुपर्ने दायित्व सम्बन्धित संस्थाको हनेछ ।
- ग) संस्थाको विकासको लागि परिषद्ले समय समयमा सरोकारवालाहरुसँग विभिन्न कार्यक्रम तथा गोष्ठी संचालन गर्नेछ ।
- घ) परिषद्बाट संचालित कार्यक्रम तथा गोष्ठी समेतबाट आएका सुफावहरुलाई ध्यानमा
 राखी परिषद्ले इन्जिनियरिङ्ग व्यवसाय संचालनको लागि आवश्यक नीति, योजना तथा
 कार्यक्रमहरु तयार गरी त्यसको कार्यान्वयन गर्नेछ।

१० पहिलो संशोधनद्वारा भिकिएको

५.२ <u>नियमित अनुगमन</u>

- (क) अस्थायी स्वीकृति प्राप्त संस्थाहरुले तोकिएको शुल्क बुफाई एक वर्ष ननघाई परिषदबाट गठित समिति द्वारा नियमित स्थलगत अनुगमन/मूल्याकंन अनिवार्यरुपमा गराइ स्वीकृतिलाई अध्यावधिक राख्नुपर्नेछ । विशेष उद्देश्यको लागि (जस्तै विद्यार्थी थपघट, कार्यक्रम थपघट इत्यादि) गरिएको अनुगमन/मूल्याकंन लाई वार्षिक अनुगमन/मूल्याकंन भित्र गणना गरिने छैन ।
- (ख) स्थायी स्वीकृति प्राप्त संस्थाहरुले तोकिएको शुल्क बुभाई दुई वर्ष ननघाई परिषदबाट गठित समिति द्वारा नियमित स्थलगत अनुगमन/मूल्याकंन अनिवार्यरुपमा गराइ स्वीकृतिलाई अध्यावधिक राख्नुपर्नेछ । विशेष उद्देश्यको लागि (जस्तै विद्यार्थी थपघट, कार्यक्रम थपघट इत्यादि) गरिएको अनुगमन/मूल्याकंन लाई द्विवार्षिक अनुगमन/मूल्याकंन भित्र गणना गरिने छैन ।^{9२}

४.३ आकस्मिक अनुगमन

विनियम ४.२[ँ]मा जुनसुकै कुरा लेखिएको भएतापनि परिषद्ले चाहेमा देहायको अवस्थामा संस्थाको आकस्मिक अनुगमन गर्न सक्नेछ ।

- (क) परिषदको ध्यानाकर्षण भएमा :
- (१) विशेष सूचना तथा पत्रपत्रिका र अन्य संचार माध्यममा प्रकाशित समाचार र विज्ञापन मार्फत ।
- (२) विद्यार्थी, अभिभावक, शिक्षक वा अन्य सरोकारवालाहरुबाट निबेदन परेमा ।
- (३) परिषद्बाट माग गरिएका प्रगति विवरण, विद्यार्थी संख्या वा खास कुनै इन्जिनियरिङ्ग कार्यक्रमको विवरण सम्बन्धित शिक्षण संस्थाले समयमै नबुभाएमा तथा बुभाउन आनाकानी गरेमा।
- (४) परिषद्बाट गराउनु पर्ने नियममित अनुगमन कुनै कारणवस ढिलो हुन गएमा (मुख्यतया शिक्षण संस्थाकै कारणबाट ढिलो भएको अवस्था) र
- (४) अख्तियारवालाले आवश्यक ठानेमा ।
- (ख) नियमित अनुगमनबाट प्राप्त हुनुपर्ने खास कुनै विवरणहरु प्राप्त हुन नसकेमा परिषद्/ अध्यक्ष /रजिष्ट्रार सँगको सहमतीमा आकस्मिक अनुगमन गर्न सकिनेछ । यस व्यवस्था अर्न्तगत नियमित अनुगमनको केही समय पश्चात् सम्बन्धित शिक्षण संस्थाले निरीक्षणको समयमा गरेको प्रतिवद्धता अनुसार काम भए नभएको वस्तुगत अवलोकनको लागि समेत आकस्मिक अनुगमन गर्न सकिने छ ।^{१३}

१२ पहिलो संशोधनद्वारा संशोधित

१३ ऐजनद्वारा संशोधित

४.४ विशेष अनुगमन : संस्थाले विशेष कार्य जस्तै विद्यार्थी क्षमता थपघट, कार्यक्रम थपघट इत्यादिको लागि तोकिएको शुल्क बुफाई परिषदबाट गठित समितिद्वार स्थलगत अनुगमन/मूल्याकंन गराउनुपर्नेछ । परिषदले विभिन्न उद्देश्यको लागि विभिन्न समिति गठन गर्नेछ ।

[▶]यी समितिहरुले यस विनियमावलीमा निर्दिष्ट सम्पूर्ण आवश्यकताहरुको अनुगमन∕मूल्याकंन गरी प्रतिवेदन पेश गर्ने छ⁄छन् र परिषदले विनियम ३.३ को उपविनियम १ र २ अनुसार निर्णय गर्नेछ ।

परिच्छेद - ६

शुल्क

६.१ <u>सहमती शुल्क</u>

इन्जिनियरिङ्ग शिक्षा प्रदान गर्ने उद्देश्यले स्थापना गर्न चाहेको नयाँ संस्थाले अनुसूची ९(१) वमोजिमको सहमती शुल्क परिषद्मा बुकाउनु पर्नेछ ।

६.२ <u>निवेदन शुल्क</u>

स्वीकृत संस्थाले कार्यक्रम थप⁄घट तथा विद्यार्थी संख्या थप⁄घट गर्न अनुसूची ९(२) मा तोके बमोजिमको शुल्क परिषद्मा बुफाउनु पर्नेछ।

६.३ <u>निरीक्षण तथा अनुगमन शुल्क</u>

परिषद्बाट गरिने निरीक्षण तथा अनुगमन शुल्क अनुसूची - ९ (३) मा तोके बमोजिमको शुल्क संस्थाले परिषद्मा बुफाउनु पर्नेछ ।

६.४ <u>स्वीकृति शुल्क</u>

संस्था स्थापना गर्न, शैक्षिक कार्यक्रम थप गर्न वा स्वीकृत कार्यक्रममा बिद्यार्थी भर्ना क्षमता बृद्धि गर्न (स्थायी/अस्थायी) परिषद्को स्वीकृतिको लागि अनुसूची - ९ (४) मा तोके बमोजिमको शुल्क बुभाउनु पर्नेछ ।

६.४ विद्यार्थी भर्ना शुल्क

विद्यार्थी भर्ना भएपछि प्रत्येक विद्यार्थी वापत एक पटक संस्थाले परिषद्लाई अनुसूची ९ (४) मा तोकिए वमोजिमको शुल्क बुफाउनु पर्नेछ ।^{१४ क}

१४ क दोस्रो संशोधनद्वारा थप

चौथो संशोधनद्वारा संशोधित

परिच्छेद - ७

विविध

७.१ स्वीकृति वेगर संचालन गर्न नहुने

- परिषद्को स्वीकृति वेगर ईन्जिनियरिङ्ग शिक्षा प्रदान गर्ने संस्था संचालन गर्नु हुदैन ।
- परिषद्को स्वीकृति बिना संचालित संस्थाबाट अध्ययन गरी उतिर्ण भएका विद्यार्थीहरुको परिषद्मा नाम दर्ता गरिने छैन ।
- स्वीकृति वेगर संचालन भएका संस्थाहरुको नाम परिषद्ले सार्वजनिक सूचना प्रकाशित गर्न सक्नेछ ।
- ૭.૨^૧૪
- ७.३ <u>खारेजी र बचाउ :</u>
 - १) नेपाल इन्जिनियरिङ्ग परिषद्, इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, २०५९ खारेज गरिएको छ।
 - तेपाल इन्जिनियरिङ्ग परिषद्, इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, २०५९ बमोजिम भए गरेका कामकारवाहीहरु यसै विनियमावली बमोजिम भए गरेको मानिनेछ ।

१४ पहिलो संशोधनद्वारा भिर्ताकएको

अनुसूची - १

विनियम २.९(१) सँग सम्बन्धित नयाँ संस्था स्थापना गर्न सहमति माग गर्ने निवेदनको ढाँचा

मितिः -

नेपाल इन्जिनियरिङ्ग परिषद् काठमाण्डौं ।

विषय :- सहमती सम्बन्धमा

यस संस्थाले नेपाल इन्जिनियरिङ्ग परिषद् ऐन, २०४४, नेपाल इन्जिनियरिङ्ग परिषद् नियमावली, २०४७ र इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, <u>२०६६^{९६} को</u> अधिनमा रही इन्जिनियरिङ्ग शिक्षा अध्ययन अध्यापन गराउने भएकोले देहायको विवरण सहित संस्था स्थापना गर्न सहमति पाउनको लागी सहमती आवेदन शुल्क रु......बुभाएको ढु ।

विवरण

१) संस्थाको नाम :

२) संस्थाको ठेगाना :

क) कार्यालयको ठेगाना :

अञ्चल......जिल्ला......न.पा./गा.वि.स.....ब्लक न.... फोन नं: Fax/G.P.O.Box इमेल :

ख) सम्पर्क कार्यालय ठेगाना :

अञ्चल......ब्लक न.... फोन नं.: Fax/G.P.O.Box इमेल :

३) संस्थाको संचालक समितिका सदस्यहरुको

क) नाम :-

ख) ठेगाना :-

ग) नागरिकता :-

संस्थाको छाप

१६ पहिलो संशोधनद्वारा संशोधित

निवेदक

नाम दस्तखतः पदः

संलग्न कागजातहरु :

संस्थाको दर्ता प्रमाणपत्र /प्रबन्ध पत्र /नियमावली :

२) संस्थाको कार्ययोजना :(Work Plan)

३) संभाव्यता अध्ययन प्रतिवेदन (Feasibility Report) :

४) संस्थाको तर्फबाट निवेदकको अख्तियारनामा:

४) परिषद्को खातामा सहमति शुल्क बुकाएको भौचर :

६) अन्य प्रासाङ्गीक कुरा :

अनुसूची २

विनियम २.१(२) सँग सम्बन्धित सहमती पत्रको ढाँचा

मितिः -

श्री

विषय :- सहमती सम्बन्धमा ।

त्यस संस्थाको मिति......को निवेदन माथि कारवाही हुँदा परिषद्को मिति.....को निर्णयानुसार विनियमावलीले तोकेको शर्त तथा पूर्वाधारहरु पूरा गरी परिषद्को स्वीकृति पश्चात् मात्र कार्यक्रम संचालन गर्न पाउने गरी संस्था स्थापना गर्न सहमति प्रदान गरिएको छ । साथै अन्य कुनै निकायबाट संस्था स्थापना गर्न सहमती/इजाजत लिनुपर्ने भए सो समेत लिई संस्था स्थापना गर्न अनुरोध छ ।

रजिष्ट्रार

विनियम २.२ सँग सम्बन्धित नयाँ संस्थाले कार्यक्रम संचालन गर्न स्वीकृतिमाग गर्ने निवेदनको ढाँचा

मिति:-

नेपाल इन्जिनियरिङ्ग परिषद् काठमाण्डौं

विषय :- कार्यक्रम संचालन गर्न स्वीकृति सम्बन्धमा ।

त्यस परिषद्को मितिः......को सहमती पत्र अनुसार.....नामक शिक्षण संस्था स्थापना गरी.....विश्व विद्यालयबाट सम्बन्धन लिई इन्जिनियरिङ्ग शिक्षा अध्ययन अध्यापन गराउने हुँदा नेपाल इन्जिनियरिङ्ग परिषद् ऐन, २०४४, नेपाल इन्जिनियरिङ्ग परिषद् नियमावली, २०४७ र इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, <u>२०६६^{१७} को अधिनमा रही</u> देहायको विवरण सहित स्वीकृति शुल्क रु......र निरीक्षण तथा अनुगमन शुल्क रु.....गरी जम्मा रु.....बुफाएको बैक भौचर संलग्न गरी कार्यक्रम संचालन गर्न स्वीकृति पाउनको लागि यो निवेदन पेश गरेको छु ।

विवरण

संस्थाको अध्यक्ष / प्रवन्ध संचालक

- क) नाम :-
- ख) ठेगाना :-
- ग) नागरिकता :-

२) संस्थाको नाम :

१७ पहिलो संशोधनद्वारा संशोधित

३) संस्थाको ठेगाना :

क) कार्यालयको ठेगाना :

अञ्चल	जिल्ला	न.पा.⁄गा.वि.स	ब्लक न
फोन नं.ः	Fax/G.P.O.Box		इमेल :

ख) सम्पर्क कार्यालय ठेगाना :

अञ्चल.....जिल्ला......न.पा./गा.वि.स....ब्लक न.... फोन नं.: Fax/G.P.O.Box इमेल :

- ४) संस्थाको संचालक समितिका सदस्यहरुको
 - क) नाम :-
 - ख) ठेगाना :-
 - ग) नागरिकता :-
- ४) संस्थाको प्राचार्य तथा विभागीय प्रमुखहरुको
 - क) नाम :-
 - ख) शैक्षिक योग्यता/अनुभव :-
 - ग) नागरिकता :-
- ६) संस्थाको संगठन तालीका

७) संस्था दर्ता भएको सम्बन्धित निकायको (प्रमाणपत्र संलग्न छ) :

क.सं.	निकायहरु	दर्ता नं.	दर्ता मिति	कैफियत

- s) शैक्षिक कार्यक्रम र भर्ना क्षमता :
- ९) शैक्षिक सत्र प्रारंभ हुने मिति
- **१०**) आर्थिक श्रोतहरु :
 - (क) संस्थापकहरु र तिनले लगानी गरेको रकम (बैंक मौज्जाद समेत) ।
 - (ख) अन्य आर्थिक श्रोत (श्रोत र रकम उल्लेख गर्नुपर्ने)
 - (ग) ऋण (संस्था र रकम उल्लेख गर्नूपर्ने)

आवेदकको

हस्ताक्षर
नाम :
पद :
ठेगाना :
फोन न :
फ्याक्स :
इमेल :

संलग्न कागजातहरु

▶ ९) विश्वविद्यालयको सम्बन्धन पत्र प्राप्त भएको भए सो को प्रतिलिपि वा प्रकृयामा भएको भए सो को प्रमाण ।

२) प्रचलित कानूनले अन्य निकायबाट इजाजत लिनुपर्ने भए सो को प्रमाणपत्र :

३) अद्यावधिक संभाव्यता अध्ययन प्रतिवेदन (Latest Feasibility Report):

४) संस्थाको प्रबन्धपत्र/नियमावली/कर्मचारीको सेवा शर्त विनियमावली तथा आर्थिक विनियमावली

५) शिक्षण समय तालिका

६) अनुसन्धान र परामर्श विकास कार्यक्रम ।

७) शिक्षक कर्मचारी विकास कार्यक्रम

५) अगामी ४ वर्षको प्रक्षेपित आय-व्यय विवरण ।

९) परिषद्ले तोकेको शिक्षण संस्थाको पूर्वाधार(अनुसूची ७ अनुसारको विवरण) :

१०) संस्थाको तर्फबाट निवेदकको अख्तियारनामा:

११) कर दर्ता प्रमाणपत्र

१२) अन्य प्रासाङ्गीक कुराः

चौथो संशोधनद्वारा थप

विनियम २.३ सँग सम्बन्धित

संचालनमा रहेका संस्थाले कार्यक्रम संचालन गर्न स्वीकृति माग गर्दा बुभाउन् पर्ने निवेदनको ढाँचा

मिति :-

श्री नेपाल इन्जिनियरिङ्ग परिषद् काठमाण्डौ ।

विषयः कार्यक्रम संचालन गर्ने स्वीकृति बारे ।

यस संस्थाले तल उल्लेखित शैक्षिक कार्यक्रमहरु संचालन गरिरहेकोमा हालसम्म परिषद्बाट कार्यक्रम संचालन गर्न स्वीकृति प्राप्त नगरेको हुँदा, इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावली, <u>२०६६^{९८} ले</u> तोकेका सवै मापदण्डहरु पूरा गरिसकेको हुनाले उल्लेखित विवरणहरुका साथ विनियम २.३ ले तोकेको सहमती आवेदन शुल्क रु......, सहमती शुल्क रु....., कार्यक्रम स्वीकृति शुल्क रु.....र निरीक्षण तथा अनुगमन शुल्क रु......गरी जम्मा रु......बुभाएको बैक भौचर संलग्न गरी कार्यक्रम संचालन गर्न स्वीकृति पाउन यो निवेदन पेश गरेको छु।

विवरण

संस्थाको अध्यक्ष / प्रवन्ध संचालक

- क) नाम :-
- ख) ठेगाना :-
- ग) नागरिकता :-
- २) संस्थाको नाम :
- ३) संस्थाको ठेगाना :

क) कार्यालयको ठेगाना :

अञ्चल	जिल्ला	न.पा.⁄गा.वि.स	ब्लक न
फोन नं.∶	Fax/G.P.O.Box		इमेल :

ख) सम्पर्क कार्यालय ठेगाना :

अञ्चल	जिल्ला	न.पा.⁄गा.वि.सब्ल	क न
	Fax/G.P.O.Bo		इमेल :
४) संस्थाको र	संचालक समितिका सदस्यह	रुको	
क) क	नाम :-		
ख) व	ठेगाना :-		
ग) न	नागरिकता :-		
५) संस्थाको	प्राचार्य तथा विभागीय प्रमु	खहरुको	
क) न	नाम :-		
ख) इ	शैक्षिक योग्यता/अनुभव :-		
ग) न	नागरिकता :-		

१८ पहिलो संशोधनद्वारा संशोधित

६) संचालन गर्न चाहेको शैक्षिक कार्यक्रम

क.सं.	कार्यक्रमको नाम	भर्ना क्षमता विवरण
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x		
€0		
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	जम्मा	

७) संस्था दर्ता भएको सम्बन्धित निकाय (प्रमाणपत्र संलग्न छ)

क.सं.	निकायहरु	दर्ता नं.	दर्ता मिति	कैफियत

) शैक्षिक सत्र प्रारंभ हुने मिति

९) हालसम्मको विद्यार्थी भर्ना विवरण

कस.	कार्यक्रमको नाम	विद्यार्थी	भर्ना स	ांख्या			जम्मा
		वर्ष	वर्ष	वर्ष	वर्ष	वर्ष	
٩							
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8							
x							
y y							
७							
जम्मा							

- 90) आर्थिक श्रोतहरु :
 - (क) संस्थापकहरु र तिनले लगानी गरेको रकम (बैंक मौज्जाद समेत) ।
 - (ख) अन्य आर्थिक श्रोत (श्रोत र रकम उल्लेख गर्नुपर्ने)
 - (ग) ऋण (संस्था र रकम उल्लेख गर्नूपर्ने)

आवेदकको

हस्ताक्षर	
	नाम :
	पद :
	ठेगाना
:	फोन न :
	फ्याक्स :

इ.-मेल :....

संलग्न कागजातहरु

विश्वविद्यालयको सम्बन्धन पत्र :

२) प्रचलित कानूनले अन्य निकायबाट इजाजत लिनुपर्ने भए सो को प्रमाणपत्र :

- ३) अद्यावधिक संभाव्य अध्ययन प्रतिवेदन (Latest Feasibility Report):
- ४) संस्थाको प्रबन्धपत्र/नियमावली/कर्मचारीको सेवा शर्त विनियमावली तथा आर्थिक विनियमावली
- x) बिद्यार्थीको भर्ना क्षमता र संगठन तालिका
- ६) शिक्षण समय तालिका
- ७) अनुसन्धान र परामर्श विकास कार्यक्रम ।
- प्र) शिक्षक कर्मचारी विकास कार्यक्रम
- ९) अगामी ४ वर्षको प्रक्षेपित आय-व्यय विवरण।
- **90) परिषद्ले तोकेको शिक्षण संस्थाको पूर्वाधार(अनुसूची ७ अनुसारको विवरण) :**
- ११) संस्थाको तर्फबाट निवेदकको अख्तियारनामाः
- १२) अन्य प्रासाङ्गिक कुरा :

अनुसूची – ४

विनियमावली ३.४ सँग सम्बन्धित स्थायी स्वीकति प्राप्त गर्ने निवेदनको ढाँचा

मितिः-

नेपाल इन्जिनियरिङ्ग परिषद् भगवतीमार्ग, नक्साल काठमण्डौ ।

विषय : स्थायी स्वीकृति पाउ" ।

यस संस्थाले त्यस परिषद्को मिति को पत्रानुसार अस्थायी स्वीकृति पाई इन्जिनियरिङ्ग शिक्षण संस्थालाई मान्यता प्रदान गर्ने विनियमावलीमा उल्लेखित शर्तहरु पूरा गरी सकेको हुनाले स्थायी स्वीकृति प्रदान गर्न हुन स्थायी स्वीकृति शुल्क रु......।– र निरीक्षण तथा अनुगमन शुल्क रु.....गरी जम्मा रु.....तिरेको बैंक भौचर संलग्न गरी स्थायी स्वीकृति पाउन यो निवेदन गरेको

छु ।

<u>विवरण</u>

संस्थाको अध्यक्ष / प्रवन्ध संचालक

- क) नाम :-
- ख) ठेगाना :-
- ग) नागरिकता :-
- २) संस्थाको नाम :
- ३) संस्थाको ठेगाना :

क) कार्यालयको ठेगाना :

अञ्चल	जिल्ला	न.पा.⁄गा.वि.स	ब्लक न
फोन नं∴	Fax/G.P.O.Box		इमेल :

ख) सम्पर्क कार्यालय ठेगाना :

अञ्चल......न.पा./गा.वि.स.....ब्लक न.... फोन नं.: Fax/G.P.O.Box इमेल : ४) संस्थाको संचालक समितिका सदस्यहरुको क) नाम :-ख) ठेगाना :-ग) नागरिकता :-४) संस्थाको प्राचार्य तथा विभागीय प्रमुखहरुको

- क) नाम :-
- ख) शैक्षिक योग्यता/अनुभव :-
- ग) नागरिकता :-

६) संचालन भइरहेको शैक्षिक कार्यक्रम

क.सं.	कार्यक्रमको नाम	भर्ना क्षमता विवरण
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	जम्मा	

७) संस्था दर्ता भएको सम्बन्धित निकाय (प्रमाणपत्र संलग्न छ) :

क.सं.	निकायहरु	दर्ता नं.	दर्ता मिति	कैफियत					

नं. भौतिक पूर्वाधारको विवरण

- (क) आफ्नै जमीन वा लिजमा लिएको रोपनी :.....
 (कागजात संलग्न गर्नुपर्ने)
- (ख) आफ्नै भवन वा लिजमा लिएको कूल क्षेत्रफल :
 (कागजात संलग्न गर्नुपर्ने)
- (ग) कक्षाकोठाहरुको संख्या र क्षेत्रफल :.....
- (घ) प्रशासनिक कोठा संख्या र क्षेत्रफल :.....
- (ङ) प्रयोगशाला / कार्यशाला क्षेत्रफल र विवरण

(च) प्रयोगशाला / कार्यशालामा भएका उपकरण सामग्री आदिको विवरण ।

- (छ) पुस्तकालयको क्षेत्रफल र पुस्तकहरुको विवरण
- (ज) खेलकुद व्यवस्था
- (भ) विद्यार्थी कल्याण सम्वन्धी व्यवस्था
- ९. जनशक्ति विवरण (पद शैक्षिक योग्यता र अनुभव खुलाउने ।
- (क) शिक्षक जनशक्ति (Teaching Staff)

क.	नाम	नाम पद <u>पूर्ण</u> आंशिक नियुक्त मिति शैक्षिक		शैक्षिक योग्यता	अनुभव						
स.			कालिन	MIXIT	erga ena		शिक्षण	अन्य	जम्मा		

(ख) प्रशासनिक जनशक्ति

क.सं	नाम	पद	पूर्ण कालिन	आंशिक	भर्ना मिति	शैक्षिक योग्यता	अनुभव

- १०. संस्थाको हालको संगठन तालिका
- 99. संचालक समितिको गठन, काम, कर्तव्य र अधिकार
- १२. उपलब्ध यातायात सेवाको विवरण (संस्थाको मात्र कागजात संलग्न गर्ने)
- १३. हालसम्म भए गरेका अनुसन्धान, परामर्श र विकास कायक्रम (प्रतिवेदनको प्रतिलिपि पेश गर्ने)
- **१४.** हाल सम्म भए गरेका शिक्षक कर्मचारी विकास कार्यक्रमको विवरण
- १४. हालसम्म भएको लगानी विवरण

क.	लगानी क्षेत्र	विभिन्न अ	ा.व. मा गरे	को लगानी (रु.)		कूल लगानी
स.		आ.व.	आ.व.	आ.व.	आ.व.	भूरा लगागा
٩.	जमीन खरिद					
ર.	भवन निर्माण					
ર .	जमीन भवन भाडा भरौट					
¥.	कार्यालय उपकरण					
X.	प्रयोगशाला उपकरण					
çz.	फर्निचर					
૭ _.	ुपस्तक					
۲.	सवारी साधन					
S.	संञ्चालन खर्च					
٩0 <u>.</u>	अन्य					
99.	जम्मा					

१६) हालसम्मको विद्यार्थी भर्ना विवरण

	कार्यक्रमको नाम		विद्यार्थी भर्ना संख्या										
क.स.		वर्ष	वर्ष	वर्ष	वर्ष	वर्ष	जम्मा						
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जम्मा				

१७. आगामी ४ वर्षको योजना

क.	कार्यक्रम -	लगानी गर्ने	लगानी गर्ने योजना (रु.)										
स.		आ.व.	आ.व.	आ.व.	आ.व.	आ.व.	जम्मा रु.						
जम्मा	रु.												

१८. हाल सम्म प्रयोग भएको आर्थिक श्रोत

- (क) संस्थापक र तिनले लगानी गरेको रकम (बैंक मौज्जाद समेत) रु.....
- (ख) अन्य आर्थिक श्रोतवाट प्राप्त रकम (श्रोत र रकम उल्लेख गर्नुपर्ने) रु.....
- (ग) ऋण (संस्था र रकम उल्लेख गर्ने)

रु																															
1.	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠	٠

- १९. अगामी ४ वर्षको प्रक्षेपित आय व्यय निवारण
- २०. विद्यार्थी शुल्क विवरण

आवेदकको

हस्ताक्षर
नाम :
पद :
ठेगाना :
फोन न :
फ्याक्स :
इमेल :

संलग्न कागजातहरु

- 9) विश्वविद्यालयको सम्बन्धन पत्र :
- २) प्रचलित कानूनले अन्य निकायबाट इजाजत लिनुपर्ने भए सो को प्रमाणपत्र :
- ३) परिषद्ले तोकेको शिक्षण संस्थाको पूर्वाधार(अनुसूची ७ अनुसारको विवरण) :
- ४) संस्थाको प्रबन्धपत्र/नियमावली/कर्मचारीको सेवा शर्त विनियमावली तथा आर्थिक विनियमावली
- ४) बिद्यार्थीको भर्ना क्षमता र संगठन तालिका
- ६) शिक्षण समय तालिका
- ७) अनुसन्धान र परामर्श विकास कार्यक्रम ।
- त) संस्थाको विकास कार्ययोजना ।
- ९) शिक्षक कर्मचारी विकास कार्यक्रम
- १०) अगामी ४ वर्षको प्रक्षेपित आय-व्यय विवरण ।
- ११) संस्थाको तर्फबाट निवेदकको अख्तियारनामा:
- १२) अन्य प्रासाङ्गिक कुरा :

अनुसूची ६

विनियमावली २.४ सँग सम्बन्धित

कार्यक्रम थपघट तथा विद्यार्थी भर्ना संख्या थपघट गर्ने निवेदनको ढाँचा

मितिः-

श्री नेपाल इन्जिनियरिङ्ग परिषद् काठमाण्डौँ ।

विषय :- कार्यक्रम थप/घट वा विद्यार्थी भर्ना संख्या /थप/घट गर्न स्वीकृति बारे ।

विवरण

 संस्थाको अध्यक्ष ⁄ प्रवन्ध संचालक
क) नाम :-
ख) ठेगाना :-
ग) नागरिकता :-
२) संस्थाको नाम :
३) संस्थाको ठेगाना :
क) कार्यालयको ठेगाना :
अञ्चलन.पा./गा.वि.सब्लक न
फोन नं.: Fax/G.P.O.Box इमेल∶
ख) सम्पर्क कार्यालय ठेगाना :

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अञ्चल	जिल्ला	न.पा./गा.वि.स	ब्लक न
फोन नं∴	Fax/G.P.O.Box		इमेल :
४) संस्थाको	ं संचालक समितिका सदस्यहरु	को	
क)	नाम :-		
ख)	ठेगाना :-		
ग)	नागरिकता :-		
५) संस्थाक	ो प्राचार्य तथा विभागीय प्रमुख	हरुको	
क)	नाम :-		

- ख) शैक्षिक योग्यता/अनुभव :-
- ग) नागरिकता :-

६) थप/घट गर्न चाहेको शैक्षिक कार्यक्रम वा थप/घट गर्न चाहेको विद्यार्थी भर्ना संख्या

क.सं.	कार्यक्रमको	थप⁄घट गर्न		थप⁄घट गर्न चाहेको	जम्मा
	नाम	चाहेको कार्यक्रम	क्षमता विवरण	विद्यार्थी भर्ना संख्या	
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	जम्मा		

७) हालसम्मको विद्यार्थी भर्ना विवरण

क.	कार्यक्रमको नाम	विद्यार्थी भर्ना संख्या						जम्मा
स.	कावकमका गाम	वर्ष	वर्ष	वर्ष	वर्ष	वर्ष	वर्ष	
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जम्मा								

भौतिक पूर्वाधारको विवरण

- (क) आफ्नै जमीन वा लिजमा लिएको रोपनी :.....
 (कागजात संलग्न गर्नुपर्ने)
- (ख) आफ्नै भवन वा लिजमा लिएको कूल क्षेत्रफल :
 (कागजात संलग्न गर्नुपर्ने)
- (ग) कक्षाकोठाहरुको संख्या र क्षेत्रफल :.....
- (घ) प्रशासनिक कोठा संख्या र क्षेत्रफल :.....
- (ङ) प्रयोगशाला / कार्यशाला क्षेत्रफल र विवरण
- (च) प्रयोगशाला / कार्यशालामा भएका उपकरण सामग्री आदिको विवरण ।
- (छ) पुस्तकालयको क्षेत्रफल र पुस्तकहरुको विवरण
- (ज) खेलकुद व्यवस्था
- (भ) विद्यार्थी कल्याण सम्वन्धी व्यवस्था

९) जनशक्ति विवरण (पद शैक्षिक योग्यता र अनुभव खुलाउने ।

(क) शिक्षक जनशक्ति (Teaching Staff)

क.	नाम	पद	पूर्ण	आंशिक	नियुक्त मिति	शैक्षिक योग्यता	5	अनुभव	
स.	·u·u	r.	कालिन	MIXIT		\ 4 4 4 4	शिक्षण	अन्य	जम्मा

(ख) प्रशासनिक जनशक्ति

क.सं	नाम	पद	पूर्ण कालिन	आंशिक	भर्ना मिति	शैक्षिक योग्यता	अनुभव

१०) संस्था दर्ता भएको सम्बन्धित निकाय (प्रमाणपत्र संलग्न छ)

क.सं.	निकायहरु	दर्ता नं.	दर्ता मिति	कैफियत

99) शैक्षिक सत्र प्रारंभ हुने मिति

- १२) आर्थिक श्रोतहरु :
 - (क) संस्थापकहरु र तिनले लगानी गरेको रकम (बैंक मौज्जाद समेत) ।
 - (ख) अन्य आर्थिक श्रोत (श्रोत र रकम उल्लेख गर्नुपर्ने)
 - (ग) ऋण (संस्था र रकम उल्लेख गर्नुपर्ने)

आवेदकको	
हस्ताक्षर	
नाम :	
पद :	
ठेगाना	
	फोन न :

फ्याक्स :	
इमेल :	

संलग्न कागजातहरु

9) विश्वविद्यालयको सम्बन्धन पत्र :

- २) प्रचलित कानूनले अन्य निकायबाट इजाजत लिनुपर्ने भए सो को प्रमाणपत्र :
- ३) अद्यावधिक संभाव्य अध्ययन प्रतिवेदन (Latest Feasibility Report):
- ४) संस्थाको प्रबन्धपत्र/नियमावली/कर्मचारीको सेवा शर्त विनियमावली तथा आर्थिक विनियमावली
- ४) बिद्यार्थीको भर्ना क्षमता र संगठन तालिका
- ६) शिक्षण समय तालिका
- ७) अनुसन्धान र परामर्श विकास कार्यक्रम ।
- ८) शिक्षक कर्मचारी विकास कार्यक्रम
- ९) अगामी ४ वर्षको प्रक्षेपित आय-व्यय विवरण।
- 90) परिषद्ले तोकेको शिक्षण संस्थाको पूर्वाधार(अनुसूची ७ अनुसारको विवरण) :
- ११) संस्थाको तर्फबाट निवेदकको अख्तियारनामाः
- १२) अन्य प्रासाङ्गिक कुरा :

इन्जिनियरिङ्ग शिक्षा प्रदान गर्ने सम्वन्धी पूर्वाधार (Norms and Standards)

Contents

1.	Introduction	
2.	Entry Requirement in Engineering Programs	
3.	Salient Features of an Engineering college	
4.	Norms for space and buildings	
5.	Norms of laboratory equipment	
6.	Norms for computing Facilities	
7.	Norms for library books and journals	
8.	Norms for furniture	
9.	Staff norms	
10.	. Institutions to apply	

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Page

1.0 INTRODUCTION

1.1 Education has acculturating role to play refining sensitivities and perceptions that contribute to a scientific temper and independence of mind. Further, it has to develop manpower for different levels of economy and thus provide one of the major inputs to the national effort for self-reliance and improvement of the quality of life.

The government should accept the responsibility to reinforce the national and integrative character of education, to maintain quality and standards and to monitor the educational requirement of the country as a whole in regard to manpower for development. In the context of unprecedented explosion of knowledge, higher education, particularly in technological field, has to become dynamic, as never before, constantly entering uncharted areas.

- **1.2.**¹⁹ through Nepal Engineering Council Act-2055, NEC is vested with the statutory authority for planning, formulation or norms and standards, monitoring and evaluation, and ensuring coordinated and integrated development of engineering education in Nepal. Some of the functions of Nepal Engineering Council to ensure maintenance of standards are:
 - To lay down norms and standards for courses, curricula, physical and instructional facilities, staff pattern, staff qualifications, quality instruction and examinations;
 - To grant approval for starting new technical institutions and for introduction of new courses or programmes in consultation with the agencies concerned;
 - To set-up a National Board of Accreditation to periodically conduct evaluation of technical institutions or programmes.

It is to meet these obligations; the Nepal Engineering Council is required to formulate and periodically upgrade norms and standards for engineering institutions.

1.3 These norms and standards are not intended to give rise to a rigid framework for the engineering institutions curbing innovative efforts of individual institutions, but are meant to identify those inputs which, if not available to the institution, programmes of acceptable standard cannot be offered.

To emphasize this perspective of the norms and standards, wherever required the minimum and desirable norms are specified and it is expected that the institutional management and their funding agencies will spare no efforts to meet the desirable norms in the shortest possible period of time.

The annual intake capacity, the programs offered and other local condition may differ from institution to institution. Hence unit norms for space equipment, furniture, staff and laboratory equipment are prescribed.

१९ पहिलो संशोधनद्वारा भिकिएको

The requirement of infrastructure facilities, staff and recurring expenditure will be, to some extent, dependent on the curricula in operation. The institutions will have the freedom to evolve their own course structures and curricula, subject to the minimum requirement formulated by NEC from time to time.

NEC has developed Model Curriculum structure together with model list of laboratories and experiments, which would be applicable to major degree Courses in Engineering. These models are developed on the basis of curriculum of Tribhuban University, Pokhara University, Purwanchal University and Kathmandu University and henceforth will be followed by the various Universities offering engineering programs or affiliating the colleges/institutions offering engineering programs.

These norms deal with the space, buildings, equipment, furniture and staff for an engineering institution, offering degree programs in Engineering and Technology.

2.0 ENTRY REQURMENT IN ENGINEERING PROGRAMS

2.1 Eligibility Criteria

Entry requirement in engineering degree programs has been decided depending upon prevailing norms of such education in the region. It also is dictated by various systems of higher secondary education in the country and abroad. The following eligibility criteria have therefore been fixed.

All of following must be met.

- a) ↔ Students seeking admission in engineering degree programs must have passed I. Sc. or 10+2 (Science stream) from board or universities recognized by the universities of Nepal or diploma (or equivalent) in Engineering / Architecture
- b) Students must have secured at least second division in the qualifying examination

When division is not mentioned and evaluation is based on grade point, a student must have obtained a cumulative grade point of 2 or above. In letter grade it is equivalent to C and above.

c) Students must have taken physics chemistry and mathematics, as major subjects, weightage of which should be at least 100 marks or 3 credits in their qualifying examination. In case of Computer Engineering, Software Engineering and IT/ICT Engineering students may have taken physics, math and computer as major subjects.

2.2. Entrance Test

Concerned universities or institutions should conduct entrance test and prepare a merit list of all the students applying for enrolment with the colleges. Admission should be taken on merit basis only. For this following weightage may be given:

[↑] Higher Secondary Examination (10+2 or I.Sc.) or
 Diploma (or equivalent) in Engineering / Architecture - 40%
 Entrance Test conducted by the institution -60%
 Foreign students may be admitted based upon their results of qualifying examination & interview.

[↔] पहिलो संशोधनबाट संशोधित ।

[↑] पहिलो संहोधनमा थप भएको ।

3.0 SALIENT FEATURS OF AN ENGINEERING COLLEGE WITH AN ANNUAL INTAEK OF 360 STUDENTS

60 each in braches/ Disciplines of Civil, Mechanical, Electrical, Electronics, Computer Science & Engineering and Information Technology

Total strength of students Total strength of Faculty Faculty student ratio Total land area (*)

Branch – wise intake

 $1440 \\ 96^{20} \\ 1:15^{21}$

Minimum area required for any number of students less than 720 in an institution shall be 15 ropanis. For student number more than 720, additional lands will be required on pro-rata basis. Land may be leased for a period not less than 15 years and registered with land revenue office in the name of the college for the lease period. But it should be in the ownership of the college at least within the 15 years of establishment.

Total carpet area of the institutionMinimum: 8,000 sqm.(excluding hostel and staff quarters)Desirable : 10,000 sqm.(In addition to 1440 student of total capacity of institution, carpet area should be increased by 6 sqm per student)

Floor area per studentMinimum : 6 Sqm(Plinth area depends upon number of floors)Desirable 7 sqm

Minimum number of books to begin with 3700

Minimum Full time Faculty (Teaching staff) requirement

Note: These norms and standards have been designed for a maximum of 1440 students with annual intake of 360 students. Any increase or decrease in students number may require additional facilities on pro-rata basis.

50% of total

(*) - Land required can be at 3 locations within distance of 10 KM in the municipality or V.D.C. as the case may be . However, piece of land should not be less than 5 Ropanis at one location/plot.

Academic activities should be allocated in a single location. Institution should get approved before shitting to new location.

२० पहिलो संशोधनद्वारा संशोधित

२१ ऐजनद्वारा संशोधित

चौथो संशोधनद्वारा संशोधित

4.0 NORMS FOR LAND AND BUILDINGS

The norms for space and buildings have been arrived at, based on the functions of an engineering institution offering degree programs have to perform. In all cases, unit norms have been evolved taking the absolute minimum needs which are indicated as the minimum norms. Along with them, desirable norms to provide certain degree of flexibility and additional comfort have also been indicated, wherever it is felt necessary. Neither the minimum nor the desirable norms have any provisions, for any extension that the institution may undertake at a later stage. As such the institutions, while envisaging their land and building requirements must keep their perspectives for development in mind and formulate their plans accordingly.

For colleges/institutions offering multiple programs or programs other than engineering, land and building space requirement shall be met for total number of students in the college/institution. However if the college or institution operates in shifts allowing for adequate instruction hours in each shift programs shall be considered as if offered in different location.

4.1 Norms for land

Land is required to make buildings, provide for play fields and open space.

The land area, with clear title in the name of institution/government, required for building will depend on the prevailing building bye-laws as well as the building design-single storey or multi-storey. However, adequate space has also to be available for roads, pathways, garden, open space, etc. Hence the total land required to accommodate the building alone will vary from minimum of twice the plinth area to thrice the plinth area.

4.2 Classification of Building Area

The building area required for an engineering institution can be classified as academic area, administrative area, amenities area, and residential area.

Academic area will include class rooms, tutorial rooms, drawing halls, laboratories, workshops, computer center, library, instructional resource center, seminar hall, etc.

Administrative area comprises Principal's room, visitors lounge, staff rooms, college office, departmental offices, stores, conference room, confidential room, etc.

Area for amenities consists of common rooms, recreation center, hobby center, gymnasium and alumni association, shops, health clinic, etc.

Residential area includes student hostels, staff quarters and guest house.

4.3 Norms for Space for Academic Building

The course structure of any engineering degree program will include lectures, tutorials, drawing and design work, laboratory work and seminars/colloquium. The college must have adequate building areas for all these instructional activities.

According to the model curriculum (under section 9.1.1) during different semesters, the total number of hours per week for which the student is to have contact with the teacher will vary between 27 to 34. In view of this, the instructional schedule will have to be spread over a total period of 34 hours a week. To achieve this, the college can work for seven hours on Mondays

through Fridays or arrange its working days suitably to achieve around 34 hours per week. In an Engineering College the period is envisaged to be of one hour' duration. The student strength in a theory class should not exceed 60. For tutorial and laboratory work, the class will have to be divided into smaller groups of 20-30 students and a teacher assigned to each group. In case of tutorial work, these smaller groups must be accommodated in separate rooms.

For drawing and design assignments, the class can have a maximum size of 60 students but one teacher must be assigned to each group of 30 students as in the case of tutorial and practical classes.

The seminars/colloquium of the senior students must be conducted with the entire class of a particular discipline participating. These seminars may be conducted in the halls.

The model curriculum lays considerable stress on undergraduate project work. Though the students are to work on the assigned project work consulting the teacher-supervisor whenever required, it is desirable to make provision to use the drawing hall whenever necessary.

In addition, the drawing halls may also be used by the students to complete home assignments involving design and drawing works.

In the case of workshop practice classes for first year students, which emphasize the skills component of the training, the classes will have to be divided into smaller groups and work assigned in different shops.

4.3.1. Norms for the Number of Rooms for Theory, Tutorial and Drawing Classes

The rooms required for theory classes, tutorial work and drawing and design will not be of the same size because of the difference in the class strength and the type of furniture required. As such it is necessary to determine their number separately. The rooms required for different types of class work other than laboratory instruction and training will depend on the admission to different disciplines, the structure of the programs and their curricula. The basis, on which the number of rooms required for the theory, tutorial, drawing and design class work can be determined, is given in Attachment I. They can also be approximately determined by the empirical rules given below.

Number of rooms for theory Classes

The number of rooms required for the lecture classes (NL) can be determined by applying the following relationship.

$$NL = (TL/SL) (HL/HW) (1/FL)$$

Where

NL	=	Rooms required for the lecture classes of a given class strength.
SL	=	Class strength i.e., the number of students in the class. The number
		should be limited to 60.

- TL = Total number of students in the College belonging to all classes of all disciplines attending theory classes of the given strength SL. This number depends on the admissions to different disciplines.
- HL = Average number of lecture hours per week per class requiring classroom. This number depends upon the structure of the programs and its value will be approximately 15 (Generally 5 courses per week each course of 3 credit hours or 3 lectures)
- HW = Number of working hours per week. This can be taken as 34 as stated earlier.
- FL = Utilization factor of rooms for theory classes. The value of this factor can be taken as 0.8 to determine the minimum norms. The desirable norm can be computed by assigning a value of 0.75 for this factor.

Number of rooms for Tutorial work

The number of rooms required for tutorial work (NT) can be determined by applying the following relationship:

NT = (TT/ST) (HT/HW) (1/FT)

Where

- NT = Number of rooms required for conducting tutorial classes.
- ST = Class strength i.e. number of students in tutorial work, the number should not be more than 30 students.
- TT = Total number of students in the College belonging to all classes of all disciplines who attend tutorial classes in group of maximum 30 students.
- HT = Average number of tutorial hours per week per class requiring rooms to accommodate maximum of 30 students and its value can be assumed as 6.5.
- HW = Number of working hours per week which can be taken as 34.
- FT = Utilization factor whose value for arriving at the minimum norm is to be taken as 0.8 and for desirable norms as 0.75.

Number of drawing halls

The number of drawing halls (ND) required can be determined by applying the relation :

- ND = (TD/SD) (HD/HW)(1/FD), where
- ND = Number of drawing halls required.
- SD = Class strength i.e. the average number of students requiring the drawing halls subject to the condition that for any class the strength should not exceed 60.

- TD = Total number of students, in the college belonging to all disciplines requiring the drawing halls,
- HD = Average number of hours of drawing and design work per class requiring the drawing halls. Its value can be taken as 2.75
- HW = Number of working hours per week which can be taken as 34.
- FD = Utilization factor whose value can be taken as 0.8 to determine the minimum norms, and 0.75 to determine the desired norms.

4.3.2 Norms for Areas of Rooms for Theory Classes, Tutorial Work and Drawing Halls

The carpet area requirement of the class rooms and tutorial rooms depends upon the number and type of seating arrangement of the students and the provision required for a platform, a table and a chair for the teacher. In an engineering college, very frequently, a student has to make use of a data book, calculator and notes and as such s/he will require slightly more spacious desk as compared to the requirements of general colleges. Also carpet area will increase with the decrease in class strength.

The drawing hall will have to be provided with drawing tables and stools for the students. The drawing tables must be arranged with passage so that the teacher can approach the drawing table of each student. The drawing halls will also be provided with a platform for the teacher.

Considering the above requirements and the sizes of class room furniture and drawing tables normally used in the institutions, the following carpet area norms per student are prescribed for class rooms of different sizes and drawing halls.

S. No.	Type of Rooms	Carpet Area in Sqm./stude	-
		Minimum	Desirable
1	Class room for up to 30 students	1.15	1.25
2	Class room for more than 30 students	1.00	1.15
3	Drawing Hall	2.00	2.50

Building Plinth Area

Around the class rooms and drawing halls, there is considerable movement of students and there must be adequate veranda space in this part of the college building so that the classes do not get disturbed. For this reason, the ration of plinth to carpet area for the class rooms and drawing halls may be taken as 1:1.3.

Actual plinth area depends upon a number of floors in a building.

4.3.3 Norms for the number of the Laboratories and their areas

The requirement of the laboratories depend upon the programs that are being offered by the institution and the curricula adopted for these programs irrespective of the student population. Experiments that the students have to perform will depend on the curriculum and not on the number of students
admitted. Some of the laboratories may have very small utilization factor. As such, the area required for the laboratories will be independent of the total student's strength. It is for this reason that unit norms for laboratory space will not be of any significance and hence they are not given. But each laboratory has to accommodate the designed number of students. Therefore, norms of each laboratory is developed separately.

MODEL list of laboratories in the case of an institution admitting 360 students in 6 groups are given below. Also the norms for the carpet area of the different laboratories are as given below:

S.	Laboratory	Batch	Nos of Ext	Nos of Experimental Norms for Carpet ar			
No.	Laboratory	Size	setup required		m^2		
110.			Minimum	1	Minimum		
		(Max)		Desirable	Minimum	Desirable	
1.	Physics	24	12	14	60	75	
2.	Chemistry	24	24	26	60	75	
3.	Communication	24	24	26	60	75	
	Technique						
4.	Thermal Science	24	6	8	60	75	
5.	Basic Electrical	24	12	14	60	75	
	Engineering						
6.	Basic Electronics	24	12	14	60	75	
	Engineering						
7.	Machine Shop	24	3	4	40	75	
8.	Welding Shop	24	3	3	20	25	
9.	Sheet Metal Shop	24	6	8	20	25	
10.	Bench Work Shop	24	12	14	20	25	
11.	*Foundry and Forging	24	6	7	75	90	
	Total				535	690	

PART A : General Requirements

* Required for Colleges Offering Mechanical Engineering Program

PART B : PROGRAM SPECIFIC (Civil Engineering)

S.	Laboratory	Batch	Nos. of Ex	perimental	Norms for	Carpet area	
No.		Size	setup require	setup required		m^2	
			Minimum	Desirable	Minimum	Desirable	
1.	Civil Engineering	24	6	7	75	90	
	Materials and Concrete						
	Technology						
2.	Strength of materials	24	6	7	60	75	
3.	Hydraulics, Fluid	24	12	12	60	75	
	Mechanics and						
	Hydrology						
4.	Surveying Store	24	6	7	20	25	
5.	Analysis of Structure	24	6	7	60	75	
6.	Soil Mechanics and	24	6	7	60	75	
	Geo Technical						
	Engineering						
7.	Transportation	24	6	7	75	90	
	Engineering*						
8.	Environmental	24	6	7	60	75	
	Engineering#						

9.	Structural Engineering**	24	6	7	75	90
10.	Hydropower Engineering	24	6	7	60	75
11.	Geology	24	6	7	60	75
	Total				665	820

* May be combined with soil mechanics

May be combined with Chemistry

** May be combined with analysis of Structure

PART B : PROGRAM SPECIFIC (Electrical Engineering)

S.	Laboratory	Batch	Nos. of Ex	perimental	Norms for (Carpet area
No.		Size	setup require	d	m^2	_
			Minimum	Desirable	Minimum	Desirable
1	Maintenance Shop*	24	6	7	60	75
2	Electrical machines	24	6	7	75	90
3	Measurement,	24	6	7	75	90
	Instrumentation and					
	Control					
4	Basic Circuits	24	6	7	60	75
5	Power System/ Switch	24	6	7	75	90
	gear and Protection,					
	Laboratory					
					345	420

* May be combined with Workshop.

PART B : PROGRAM SPECIFIC (Electronics and Communication)

S.	Laboratory	Batch	Nos. of Ex	xperimental	Norms for	Carpet area	
No.		Size	setup require	ed	m^2	m^2	
			Minimum	Desirable	Minimum	Desirable	
1	Basic Electronics lab	24	6	7	60	75	
2	Advanced Electronics	24	6	7	60	75	
3	Electromagnetics and Microwave	24	6	7	60	75	
4	Communication Engineering	24	6	7	60	75	
5	Microprocessor and Computer Organization **	24	6	7	60	75	
6	PCB Laboratory*	-	-	-	60	75	
7	Project Work Laboratory*	24	6	7	100	125	
	Total		•	•	300	375	

* Optional, not accounted. ** may be combined with Electromagnetics & Microwave.

PART B : PROGRAM SPECIFIC (Mechanical Engineering)

S.	Laboratory	Batch	Nos. of Experimental		Norms for Carpet area m	
No.		Size	setup require	d		
			Minimum	Desirable	Minimum	Desirable
1.	Thermodynamics And	24	6	7	60	75

	Heat Engineering					
2.	Fluid mechanics and Fluid Machines	24	6	7	100	125
3.	Mechanics of Solid	24	6	7	60	75
4.	Mechanism and Machine Dynamics	24	6	7	60	75
5.	Instrumentation, Control and Measurement	24	6	7	60	75
6.	Material testing, Vibration and Stress Analysis	24	6	7	100	125
	Total				440	550

PART B : PROGRAM SPECIFIC (Computer Engineering / IT Engineering)

S. No.	Laboratory	Batch	Nos. of Ex		Norms for	
		Size	setup requi	red	m^2	
			Minimum	Desirable	Minimum	Desirable
1	Basic Computer	24	24	27	50	60
	Laboratory					
2	Programming	24	24	27	50	60
	Laboratory					
3	Advanced	24	24	27	50	60
	Laboratory -1					
4	Advanced	24	24	27	50	60
	Laboratory-2					
5	Hardware /	24	24	27	50	60
	Maintenance					
6	Internet	24	24	15	25	30
	Connectivity					
	Total				275	330

Note: Laboratories related to electronics subjects may be shared with electronics group. Colleges offering computer program only, need to make electronics laboratories as per the syllabus followed.

A few of the laboratories will be located in the main building of the college, where as the remaining laboratories may be located in industrial shed type buildings. The laboratories do not normally require wide verandas and some of them will have very wide spans.

Considering these aspect, the ratio of the plinth area to carpet area of the laboratories may be taken as 1:1.2 Hence for the institution under consideration, the floor area for the laboratory buildings excluding workshops, will be :

Minimum Space 2385×1.2 i.e. 2862 Sqm. (excluding workshop)Desirable Space 2895×1.2 i.e. 3474 Sqm. (excluding workshop)

The above floor area does not include the rooms of the teaching staff even though such staff rooms are attached to the laboratories. However, they do include the sitting space for the technical supporting staff and storage of laboratory consumables and instruments. For colleges offering programs other than the 6 disciplines as mentioned in this document, the laboratory required must be identified separately.

4.3.4 Norms for Building space for Workshops

According to the Model Curriculum Structure one course on workshop practice is to be offered during the 1st or the 2nd Semester to all branches of engineering.

The Workshop of an engineering college, as required by the standard syllabi, must have the following shops:

- Fitting and Bench work
- Welding shop
- Sheet metal shop
- Machine shop

In addition, students of Mechanical Engineering program are required to undertake courses on Production Processes which have practical components to be carried out in the workshops. Therefore they also need the following:

- Smithy shop
- Foundry shop.

To accommodate the equipment and infrastructure facilities, to organize the above mentioned course work, to provide facilities for student projects and maintenance of equipment, the workshop of an Engineering College must have minimum carpet area of 120 sqm., and a desirable carpet of 150 sqm. Since an industrial shed is more suitable for a workshop, the plinth area will be 1.1 times the carpet area. Thus, the norms for the floor area of the workshop are:

For colleges not having mechanical engineering

Minimum space	100*1.1	=	110 sqm
Desirable space	150*1.1	=	165 sqm

For colleges having mechanical engineering program: Minimum norm of floor area 195*1.1 = 215 sqm Desirable norm of floor area 240*1.1 = 264 sqm

4.3.5 Norms for Building space for library

The library of an engineering college requires a reading hall, stack room, a current periodical room, issue counters, offices and stores.

The reading hall must have minimum accommodation for 10% of the students and 10% of teachers.

To begin with, the college irrespective of its admission strength must have 3700 books, which over a period of 10-12 years must be increased to 10,000. The stack room area must be adequate for this number of books.

Separate space must be available for the display and reference of current periodicals & Journalls.

In addition, an office for the librarian and cataloguing books, a store and issue counter will have to be provided within the library.

Considering the above requirements and assuming the ration of the plinth area to carpet area as 1:1.3. The following norms for the carpet area of the library building are arrived at :

Minimum space

200 sqm. for the first 500 students and 0.275 sqm. each for every additional student.

Desirable space

250 sqm. for the first 500 students and 0.275 sqm. each for every additional student.

A distinction has to be made between residential and non-residential institutions. In the case of non-residential institutions, less reading space and large stock of books will be required. On the other hand, larger reading area and lesser stock of books will be desirable for fully residential institutions.

4.3.6 Norms for Building Space For Administrative Offices

The following are the minimum and desirable norms for the carpet areas for different administrative offices of the college.

Minimum	
Principal	20 sqm.
Confidential	10 sqm.
Conference	75 sqm.
Reception lounge	20 sqm.
Head of Department	15 sqm. per HoD
Professor / Asso. Professor	8 sqm. per person
Asst. Prof. / Junior Professor	6 sqm. per person
Departmental offices	10 sqm. per department
Examination office	20 sqm.

4.3.7 Norms of Building Space for Amenities

A well developed institution should provide other amenities for students and staff. They include student Common Rooms, Toilet Blocks, Motor Cycle Stand, Canteen, Student Activity Center, Alumni Center, Clinic, Shops, Provision for outdoor games, Open Air Theatre etc. However, all these amenities can not be considered as minimum requirements for the normal functioning of an institution.

As such some of these amenities will have to be classified under the category of desirable norms.

Toilet Blocks

The college building will have to be provided with adequate number of toilet block with urinals, lavatories and wash basins, properly distributed. It is also necessary to provide one toilet block separately for women. Further the faculty may be provided with separate smaller toilet blocks.

Considering all these requirements, the norms for the carpet area of the toilet blocks in the college works out to be as given below :

Minimum space

Carpet area per student

= 0.12 sqm.

Desirable space

Carpet area per student

= 0.15 sqm.

Student Centre

Such a center once again is not an essential requirement. However to promote extra-mural and co-curricular activities, it is desirable to have a Student Centre with a stage and accommodation to sear 25% of the staff and students strength of the institution. This hall is also to be used for indoor games, gymnasium, film shows, cultural activities, seminars and even for examination purpose. The floor area norm for such centre will have to be:

Minimum norm : = Not Applicable

Desirable norm :

Carpet area per student	= 0.20 sqm.
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Health Clinic

A college should have a small health clinic where patients could be treated for minor illness and in case of emergency. A part time doctor should be available for limited hours in a week. The clinic should be attended by a female health worker.

Minimum Space	= 60 sqm
Desirable Space	= 75sqm

Canteen

Canteen is required to accommodate 10% of total student's population at a time , therefore, carpet area required are:

Minimum	= 100 sqm
Desirable	= 150 sqm

Open-Air Theatre

The need for an open-air theatre really arises in all institutions to organize functions at least once in a year in which most of the students and employees participate. This will really require a raised platform with provision to cover it and provide some green rooms temporarily. In front of this platform, there must be adequate open space for seating arrangements when required. As such there is no need to have nay building space for this open-air theatre except when the stage and green rooms are permanent construction. Thus norm for the open-air theatre will be:

Minimum Space	Not Applicable
Desirable Space	
Area of permanent construction	= 200 Sqm

4.3.8 Norms for other Spaces

The total land required for the College will depend upon the plinth area required according to norms given, the open spaces around the building according to the building bye-laws of the local administration, play field required, provisions for future expansions, space required for roads, lawns and open spaces.

Norms for play Fields

An engineering college must be provided with a play field, as participation in games will be healthy and constructive activity. Irrespective of number of

student some minimum facilities are required. As per national standards, there should be minimum 2 outdoor games.

5.0 Norms For Equipment, Teaching-Learning and Practicals²²

5.1 Laboratory Equipments :

Normally, the number of working weeks in a semester will be of the order of 14-16 and hence in each laboratory there must be 10-12 experimental set-ups for each laboratory course. If the scheme of instruction provides 2-3 hours for laboratory course every week, on this basis the number of experiments, to be provided for in each of the laboratories is given in section 4.3.3. This model list may be generally followed while identifying the experimental facilities to be created in each of the laboratories based upon the model course structure. Detailed list of equipment in each laboratory is given in Attachment III.

S.No	Item	Number required			
		Minimum	Desirable		
1.	Multimedia projector	1 in each	2 in each department		
		department			
2.	Overhead projector	1 in each	1 in each department		
		department			
3.	Plain paper copies	2	3		
4.	Audio Cassette Recorders	1	2		
5.	Word Processor/Computer	1 for each dept.	2 for each department		
6.	Digital camera	1 in each	2 in each department		
		department			
7.	Scanner	1 in each	2 in each department		
		department			
8.	Cutting/Binding/Stitching	1 set	2 set		
	machine				
9.	Video Camera	1	2		
10.	Public Address System	1 set	2 set		
11.	Telephones:				
	External	2	3		
	Intercom	1 set	1 set		
12.	Bus	1	As per need		
13.	Staff Car	1	As per need		

5.1.1²³ GENERAL EQUIPMENTS :

5.1.2²⁴ Basic Laboratory Equipment: As per the equipment list given under Part A of Attachment III

5.1.3²⁵ Programme Specific Equipment: As per the equipment list given under Part B of Attachment III

२२ पहिलो संशोधनद्वारा संशोधित

२३ ऐजनद्वारा संशोधित

२४ ऐजनद्वारा थप

२५ ऐजनद्वारा थप

5.1.4²⁶ Facility Sharing with other institution

- Institution is not permitted to share complete laboratory works, any discipline or sub-discipline
- Some experimental facilities needing comparatively costly equipments can be shared for limited period (not exceeding 1 year) with authentic contractual agreement
- Such sharing is permitted only for some costly equipment under Part B of Attachment III, sharing of equipments under Part A of Attachment III cannot be permitted.
- Institution must maintain a traceable record for the experiments carried out with shared facilities.

5.2²⁷ Teaching-Learning and Practical

5.2.1 Institution should make timely arrangement to provide syllabus and academic calendar. Institution should make aware to the faculty regarding weekly contact hours and student regarding minimum instructional day and attendance requirements, specifically for practical works.

5.2.2 HODs/Senior Faculty members should maintain systematic course file containing relevant information including broken down course contents, action plan for course completion and records of activities carried out with sample models for best, satisfactory and worst performance.

5.2.3 Laboratory should have permanent, qualified and responsible Demonstrators/Lab In-charge for each laboratory. Demonstrators should carry out needed practicals with approved methods. They are also supposed to maintain systematic records of available equipments.

5.2.4 Institution should ensure that needed annual budget is allocated to laboratory/workshop consumables with utilization authority to the respective HODs.

5.2.5 Respective HODs should ensure that needed experiments are carried out in time with correct sequence. Verifiable records should be available with regard to carried out practicals, like by whom, when and to whom. Institution may organize some workshop, seminar, research collaboration.

२६ पहिलो संशोधनद्वारा थप

२७ ऐजनद्वारा थप

6.0 NORMS FOR COMPUTING FACILITIES

Training on computer systems has now become an essential requirement in the academic programs of engineering degree of all disciplines. The Model Curriculum Structure provides for a course in Numerical Analysis and Computer Programming and in addition one more course at the higher semester, requiring computational facilities. Further, a significant percentage of students of Seventh and Eighths semester classes opt for projects requiring computational facilities. The requirement of computer facilities will be further enhanced if the college is offering a Bachelor degree programs like Computer Science and Engineering, Information Technology Engineering and Software Engineering.

In the case of an institution which is not offering programme in Computer Science and Engineering, the minimum number of terminals required will be equal to 20% of the annual intake of students. It is desirable to have3 more terminals to meet the needs of the staff and emergencies arising out of breakdown.

If the College is offering a programme in Computer Science and Engineering, additional terminals will be required and their number is to be 50% of the intake of the students in each of the programme. In this case also, three more terminals are desirable as standbys. e.g. if annual intake in Computer Engineering and Information Technology is 60 each, total number of computers required = $[\{(60+60) \div 2\} + 3] = 63$

The computer system will have to be provided with appropriate storage capacities, software and uninterrupted power supply.

Thus, the norms for computing facilities can be stated as given below:

Minimum norms

- 1. In case of College not offering programs in Computer Science and Engineering.
 - Number of Terminals = 20% of the annual intake of student + 3
- 2. In case of Colleges offering programs in Computer Science and Engineering.
 - Number of Terminals= 20% of the annual intake of general programs+50% of the intake to Computer Science Programs + 3.

Desirable norms

1. Incase of College not offering programs in Computer Science and Engineering.

- Number of Terminals = 20% of the annual intake of student +8
- 2. In case of Colleges offering programs in Computer Science and Engineering.
 - Number of Terminals = 20% of the annual intake of general programs + 50% of the intake to Computer Science Programmes + 8

7. NORMS FOR LIBRARY BOOKS AND JOURNALS

The minimum and desirable norms for the initial stock of books, yearly addition of books and the number of journals to be subscribed are as given below

S. No	Item	Minimum	Desirable
	Initial Stock of Books		
	a. Each Branch of Engineering	500	600
	b. Mathematics	500	600
1	c. Physics, Chemistry,		

	Humanities, Social Sciences		
	And Management	700	1000
	Yearly addition of Books		
	a. Each Branch of Engineering	2 books per	2.5 books per student
		Student admitted	admitted
	b. Mathematics, Physics,	0.2 book per	0.3 books per student
2	Chemistry, Humanities, Social	Student admitted	admitted to the branch
	Sciences and Management	to the branch	
	Number of Journals		
	a. Each Branch of Engineering	3 (1 National + 2	6 (2 National + 4
		International)	International)
3	b. Mathematics, Physics,	3 (1 National + 2)	6(2 National + 4)
	Chemistry, Humanities, Social	International)	International)
	Sciences and Management		

Note : Journals may be subscribed on lin

8. NORMS FOR FURNITURE

Furniture will be required for the classrooms, tutorial rooms, laboratories, workshop, library, computer center, instructional resource centre, administrative area and student common room. The actual requirement of furniture depends upon the design of the buildings, the provision of build-in cupboards, racks and storage arrangements and the arrangements of the equipment. The norms for furniture required in different sectors of the college are given in the Attachment IV of this document.

9. STAFF NORMS

The norms stipulated are primarily for an engineering college with an annual intake of 6 batches of each 60 students. These norms will have to be appropriately modified for programs offered as part-time, sandwich pattern, single discipline or based on multipoint entry and credit system. Any deviation should be properly justified.

Staff Structure

Staff Structure of an institution will depend on multiple factors which primarily include curriculum structure, work-schedules (weekly, semester and annually), student intake, disciplines offered, instructional methods and media employed, student contact hours, group and class sizes, co-curricular and extra-curricular activities requiring staff time and involvement and training and development of staff themselves. It is recognized that some of these factors will vary from institution to institution. Hence only such major factors which are broadly common to institutions across the country are considered in stipulating that staff structure. Within the stipulated structure, flexibility to take into account the variable institutional factors is permitted, so long as such flexibility contributes to improve efficiency and effectiveness and promotion of excellence.

9.1.1 Model Curriculum Structure

The model curriculum framework presented below is based on the four-year Bachelor degree course in engineering, which broadly applies to most of the programs offered by different universities, with marginal variations.

The breakdown of the formal contact hours for 27 to 34 hours/week within a total of 36 to 40 working hours/week is given below. More emphasis should be given to practical and project work.

a. Language, Humanities and Management

5 to 10%

:

	b. Basic Science (General)c. Engineering Sciences and Technical artsd. Professional (specific discipline based)e. Open electives belonging to (d) above	:	15 to 25% 15 to 25% 45 to 65 % about 10%
9.1.2	Weekly Work Schedule Institutional working hours/week Students contact hours in formal learning Guidance and Counseling, Seminars, etc.	: :	36 to 40 hrs 27 to 34 hrs 6 to 09 hrs

9.1.3 Annual Work Schedule and Course Implementation Norms

In a semester system there should be a minimum of 90 working days out of which 72 days should be made available for class room instructional days per semester. In a yearly system, the minimum should be 144 instructional days per year. This excludes Examination, Cultural activities etc.

In any semester if classes cannot be held for 72 days, the semester end examination cannot be held and if held, the batch belonging to the semester shall not be qualified to be registered in the Nepal Engineering Council. The Institution should ensure that student attendance is minimum 80% in theory classes and 90% in practical classes. Non compliance shall be justified by valid reasons.

9.1.4 Class Size and Student: Teacher Ratio

	Student: Teacher
Theory lecture class (Maximum)	60:1
Tutorials (Maximum)	30:1
Lab, practical/workshop/drawing(Maximum)	30:1
Project work (Maximum)	$1:15^{28}$

Project work should be done in group not exceeding 5 students. The student teacher ratio will depend on (i) teacher time required for formal instruction requiring student contact (ii) student time devoted to formal learning requiring teacher contact and (iii) class size for different forms of instruction. The students teacher ratio will have to be worked out for a specific curricula. The ratio for engineering degree programs for the model curriculum works out to 10:1.

Of the total requirement at least 50% teaching staff should be full time. Evaluation shall be based on full time teaching staff only.

9.1.5 Staff Pattern-Categories

- a. Principal and Teaching staff
- b. Workshop and laboratory staff
- c. Administrative staff
 - General administration staff
 - Accounts staff
 - Property management staff
 - Library staff
 - Computer centre staff
- d. Miscellaneous staff including maintenance staff

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9.1.6 Teaching Staff Cadre and Distribution Flexibility

The cadre structure should generally be as follows:

a. Assistant Lecturer / Junior Professor/Teaching Assistant

- b. Lecturer / Assistant Professor
- c. Reader / Associate Professor
- d. Professor

Between Professors, Associate Professors and Assistant and Junior Professors, the ratio should be around 1:2:6 of (c+d): b: a. However, within the overall sanctioned strength (based on a teacher-student ratio of $1:15^{29}$), flexibility in the distribution amongst different cadres is permitted, so long as such flexibility is for meeting the specific needs of the institutions, in terms of job requirements.

9.1.6.1³⁰

(a) Definition of Full time faculty:

- Formally appointed career seeker for unlimited period (admissible probation period is the part of regular process)
- Regular employee of Institution
- Covered by the government's employment condition weekly working days/hours service condition.
- Entitled for provident fund, gratuity and/or pension as per government's directives
- Comes under the institution's by-laws for employees
- Assumes specific major responsibility in teaching-learning process

Note: Faculties without formal appointment letter and faculties with appointment letter for any time limit are not the Permanent faculties, those are only part-timers

(b) Number of Full time faculties:

At any point of time it should be Faculty: Student ratio as 1:15

Note: For calculation purpose, 2.5 part-time faculties can be considered as 1 Permanent faculty. This calculation is admissible only if numbers of available permanent faculties are equal to or more than 50% of total requirement.

(c) Academic Background of Principal:

In an engineering institution Principal must be an engineer

(d) Academic Qualification of HOD:

HODs must be at least Master's Degree holder in the relevant discipline.

(e) Employment status of Principal and HODs:

Principal and all HODs must be Permanent employee of the institution.

9.1.7 Leave Training Reserve

To enable institutions to sponsor teachers for staff development programs and to allow teachers to avail leave to which they are entitled, it is necessary that adequate reserve capacity of teachers be available.

College must arrange part time or visiting faculties to ensure that the classes are not obstructed.

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9.2 Selection and Retaining of Teaching Staff

9.2.1 Selection Process

The positions of Professors, Associate Professors and Assistant and Junior Professors should be filled up through an open selection process or promotion from the cadre of teaching staff. Institutions should adopt reliable and valid procedures for selecting candidates on the basis of adhering to the stipulations regarding qualification and experience as laid down by concerned universities.

9.2.2 Service Conditions

It is advised that conducive conditions be formed to attract and retain competent personnel as teachers of technical institutions. Salary scales, allowances, encouragement to professional work, participation in professional conferences and seminars at national and international levels, Provident fund and retirement benefits, medical benifits and reimbursement etc. should be made available in all institutions.

9.2.3 Work Norms

Teachers of engineering institutions have to perform a variety of tasks which include formal instruction in class rooms, tutorial classes, laboratories and workshops preparation for instruction, assessment and evaluation of student work, counseling and guidance of students and development activities. Any prescription for precise distribution of work and working hours for each type of activity could be counter productive. Each institution has to deploy personnel and allocate work, considering accomplishment of institutional goals and objectives and meeting as far as possible individual competence, preferences and interests. The breakdown of workloads specified below has, therefore to be treated as a standard guideline.

S. No	Activity	Hours per	Week
		HOD	Other Faculty Average
1	Contact Hours (Lectures, Tutorials and Practical)	12	22
2	Preparation, Assessment, Evaluation	6	10
3	Administration, Research, Guidance and Counseling, Development Activities, etc	18-22	4-8
Total		36 - 40	36 - 40

Average Workload Distribution

9.2.4 Performance Appraisal System

A performance Appraisal system for teachers should be set-up, well integrated with institutional functioning, and this should lead to the identification of individual training and development needs. This should also enable the identification of faculty members whose performance is outstanding. Such performance and excellence should be well-recognized and rewarded. All institutions should introduce a system for Performance Appraisal conforming with the guidelines formulated in this regard.

9.2.5 Faculty Development Program :

a) College shall have well defined and documented policy for the faculty development, endorsed by the apex body of institution management and well communicated in the institution.

Note: Faculty development policy and programmes not to be confused with general employees' policy like Karmachari Biniyamawali. Faculty development policy/programme is separate and specific one meant only for faculty members.³¹

b) Institution shall identify the needs for faculty development, mostly based on annual performance appraisal as well as on student feedback survey.

c) Institution shall make plan and execute the same for faculty development on its own initiative and support, preferably on annual basis with respect to :

- i) Availing of higher studies, i.e. Master programme, Doctoral programme

ii) Providing of identified need based formal training externally

iii) Providing regular internal training regarding new development in course content, method etc.

iv) Encouraging paper presentation in various conferences, seminar, workshop , symposia etc.

v) Any other continuous professional development program including study

tours.=vi) Organizing conferences /seminar / workshop to support and facilitate the development of technical education and research.

- d) College shall maintain updated systematic records for the various actions taken with regard to faculty development activities.
- College shall allocate minimum 1% of the annual budget for continuing education, d) including participating in conferences, organizing conference, in-house teachers training, sending staff in training, assist in teacher's research etc.

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9.3	Job	Res	ponsibi	ilities	and	Oua	lificat	ions
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Job Responsibilities and Qualifications	
Job Responsibility	Qualification and Experience
Assistant Lecturer / Junior Professor	
 or Equivalent Teaching Instruction in laboratory Students assessment and Evaluation Assisting in Consultancy and R & D Services Developing resource material and laboratory development Co-curricular and extra curricular activities 	 a. Minimum First Class Bachelor's Degree in appropriate branch of Engineering and Technology
Assisting in departmental administration	
Lecturer / Assistant Professor or Equivalent • Same as those for lecturer	 a. Ph. D. with First Class in Bachelor or Masters Degree in Engineering and Humanities and Science Or Master of Engineering with at least one year teaching or 2 year other experience. Master of Science in first division with at least 2 years of teaching experience in case of Science and Humanities Or Bachelor of Engineering in first division with at least 3 years teaching experience.
Associate Professor/Reader or	
Equivalent	a. Ph. D. with 8 years of teaching or 10 years of
Teaching including Laboratory work	industrial experience Or
 Research activities and research guidance Leading consultancy projects and extension services Curriculum 	First Class Master's degree in appropriate branch of Engineering/Technology with 10 years of teaching experience or 13 years of industrial experience Or
 Development and developing resource materials Innovation in teaching laboratory work and instructional materials. 	Ph.D. with first class in Master's degree in case of teaching posts in Humanities and Science with 8 years of teaching experience or 10 years of other relevant industrial experience Or a first class
Continuing education activitiesAcademic and administrative	Masters degree with 12 years of teaching or 15 years of other relevant experience.
planning and development work at departmental level and assisting at institutional level	 b. 10 years experience in Teaching/ Research at the Assistant Professor level. <u>Note</u>
 Students counseling and interaction Co-curricular and extra curricular activities 	Candidates from Industry with recognized professional work equivalent of Master's degree in the case of Engg./Tech. and Ph. D. in case of Humanities and Sciences as the case may be would

	also be eligible.
Professor or Equivalent	a. Ph. D. with First Class Bachelor's or
 Providing leadership both post graduate and under graduate courses in relevant field of specialization Research and research guidance Consultancy services Policy planning, Monitoring and Evaluation and Promotional Activities both at Departmental in Institutional Level Curriculum Development and developing resource materials. Design and development of new programs. Continuing education activities Interaction with industry and Society Students counseling and interaction. Administration both at 	 a. Fill D. with First Class Bachelor's of Master's Degree in Engg/Technology with 10 years teaching experience or 15 years of industrial experience Or Ph. D. Degree with First Class Bachelor's and M. Sc. In appropriate branch for teaching posts in Humanities and Sciences. b. 15 years distinguished experience in teaching/industry/research out of which 5 years must be at the level of Associate Professor or equivalent. <u>Notice</u> Candidates from Industry/profession with professional work of high standard recognized at National / International level equivalent to doctorate would also be eligible.
Departmental and Institutional	
levels.	
 Principal Academic and Administrative management of the institutions. Policy planning and providing academic and administrative leadership Monitoring and Evaluation of academic and research activities. Promotion of industry - institution interaction and R & D work. Providing Consultancy planning at the Regional/National level for development of technical education. 	At least an Associate Professor with at least 2 years experience of academic administration. Or 10 years administrative experience with master of Engineering degree with a minimum of 5 years experience in teaching.

9.4 Staff for placement & Training

The placement & Training Officer should be of the cadre of an Associate Professor, and this post must be treated as a non-vacation post. The officer shall have a teaching workload of 10 contract hours per week. The Placement & Training Officer, should maintain a good liaison with industry in and around the place of the campus. S/he should conduct an annual survey of job requirements in the industries, research and service organizations. S/he should arrange for campus interviews, in-plant training, and also arrange to get industries sponsored projects for both staff and final year students. S/he should create data bank of personnel, who are experts in their respective field from industries/research/service organization and invite them to the institution to deliver lecture for the benefit of students and staff members. S/he should arrange for training to staff members in industries/research/service organization.

The placement and Training Officer, should create a data bank of the alumni who are placed in reputed industries / research / service organizations.

S/he must help in organization effective industrial training and field visit, for staff and students and render assistance to students in getting on the job training and suitable placement in industries / research / service instructions.

9.5 Computer Centre and Staff

The computer Centre shall be a centralized service for the use of students and staff of the college. The Computer Centre shall have a Computer System with latest software tools (like CAD, GIS etc.) facilities, a high-speed printer and a plotter. LAN & internet facility for minimum 12 hours.

There shall be one System Manager and at least one Computer Programmer and one Computer Operator in the Computer Centre. Computer Operator will also be able to maintain the system.

9.6 Workshop Staff

The Workshop staffs are categorized as

- 1. Workshop Superintendent
- 2. Instructors
- 3. Skilled Assistant/Helper

The various Workshops should be under the overall charge of the Workshop Superintendent. The Workshop Superintendent shall be of the level of an Asst. Professor. Colleges should employ adequate number of instructors and helpers so as to run the program smoothly. Minimum number required is given in table below:

S. No.	Shop	Foremen/ Instructor	Skilled Assistant, Helper	Total
1	Fitting and Bench Work	1	-	1
2	Welding and Sheet Metal Shop	1	1	2
3	Machine Shop	1	-	1
	Total	3	1	4

9.6.1 Job description and qualification for workshop Superintendent

The Workshop Superintendent shall be of the rank of an Assistant professor from the department of Mechanical / Production Engineering. S/He is the Head of all the workshops in the College and is responsible to the head of the Department in all workshops and services to various departments.

Job Description

- Planning scheduling, organizing, coordinating and monitoring workshop classes and tasks of the college.
- Plan, deliver and evaluate theoretical and workshop instruction.
- Design, develop and test instructional materials and tasks for skill training.
- Plan and organize staff development programs for workshop staff.
- Procurement, erection/ installation and commissioning of plant and equipment in the workshops.
- Procurement and storage of raw materials, tools, instruments.
- Guide the students in the performance of practical tasks and skill exercises and evaluate their performance.
- Advise and assist students and faculty members in the fabrication of their projects.
- Manage the maintenance of equipment and tools in the shops including preventive and breakdown maintenance, lay down safety procedures.
- Participate in professional development activities.

Qualification

B.E. first class or equivalent in Mech. Engg./Industrial Engg. Production Egg./with 5 years experience out of which 2 years must be as a Workshop Foreman/Instructor.

9.7 Laboratory Staff

The Laboratory staff are categorized as

- 1. Senior/Junior Technical Assistant/Lab Technician
- 2. Skilled Assistant/ Lab Assistant and Helper

The norms are as follows:

	Senior /Jr. Tech.	Skilled Asst./Lab	
Department	Asst./Lab. Technician	Assistant	Total
Physics	1	1	2
Chemistry			
	1	1	2
Civil Engineering	2	1	3
Mechanical			
Engineering*/Industrial			
Engineering	2	2	4
Electrical Engineering *	2	1	3
Electronics Engineering	2	1	3
Computer Science &			
Engineering /IT Engineering	2	1	3
Total	12	8	20

* For Colleges offering mechanical and /or electrical engineering program as the case may be :

9.8 Library Staff

The library staff are categorized as follows: (i) Librarian, (ii) Assistant, Librarian, (iii) Library Assistants, (iv) Library Helpers. There shall be a minimum of one Librarian or Assistant Librarians, two Library Assistants and one Library Helper for each college, irrespective of student intake capacity.

9.8.1 Job Descriptions and Qualifications of Librarian / Assistant Librarian

The librarian is an administrative position and is responsible for planning and developing the library of the College and provides the necessary library service to the students and staff of the college. S/He is responsible to the Principal in all matters connected with the library activities.

Job Description

- General Administration
- Budgeting, planning and developing the library
- Books/periodicals/videos selection acquisition
- Supervising of cataloging and indexing
- Arranging for repairs
- Liaison with other departments of the college in library matters

Qualification³² Librarian should have Bachelor Level Qualification in Library Science/Library Management. Alternatively, should be graduate in any discipline with at least four month's professional training in Library Science/Library Management from well recognized institution.

At least M. Lib. Science Degree or B. Lib. Science with 8 years experience for Librarian and 5 years of experience for assistant librarian in a similar library.

9.9 Health Clinic Staff

Doctor (Part time)	- one
Male Attendant	-one
Helper	-one

9.10 Administrative Staff

i. Administrative Officer	-one
ii. Finance Officer	-one
iii. Store Keeper /Property Manager	-one

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The qualification and experience for posts under 9.10 shall be as determined by the institution. However minimum qualification shall not be less than graduate in respective field.

9.11 Maintenance Staff

There shall be a maintenance team under a maintenance supervisor.

10.0 INSTITUTIONS TO APPLY

An application to start a new college should be submitted along with a detailed feasibility study report the content of which shall be as per attachment II of this document.

An institution or an organization wishing to start a new engineering college must meet minimum norms as laid down in this norms and standards and as updated from time to time by the council.

The institutions which are under operation before enforcement of this norms and standards must meet at least 75% of the norms as per Annex 6 of this document. Institution which are under operation before the enforcement of this norms and standards must also apply for the approval of the council along with detail report as per attachment of II of this document.

Council may grant permission, temporary or permanent as the case may be depending upon the achievement of norms and standards as laid down in appendix 6 of regulation related to approval of institutions

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12. CHANGE IN TOTAL INTAKE CAPACITY :

Institutions intending to change annual intake capacity must apply to the Council along with necessary application fee.

Basis for Computation of the Number of Rooms Required for Lecture, Tutorial and Drawing Class Work

The Council will evaluate and give approval if the institute has met the minimum of the requirements for total intake as per this Norms & Standards.

Attachment – I

1. Data Form Model Curriculum

The Model Syllabi adopted for these calculation are that of the Tribuban University and of Pokhara University. The hours of different types of class work in all the eight semester for disciplines, viz. Civil, Electrical, Mechanical, Electronics, Computer Science and Information Technology are determined on the basis of model syllabi and same is given in the Table below. The lectures in case of elective (other than open electives) have been considered along with the tutorials as their class strength is expected to be of the same order as those of tutorials i.e. 20 to 30.

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	Types of	Periods of Engagement, hours						
Sem- ester	Class Work	Civil	Electrical	Mechanical	Electronics	Computer Science	Information Technology	Total
	Lecture	14	14	14	14	14	15	85
	Tutorial	6	6	6	6	6	5	35
	Drawing	5	5	5	5	5	4	29
1st	Practical	9	9	9	9	9	9	54
	Lecture	14	14	14	14	14	14	84
	Tutorial	7	7	7	7	7	7	42
	Drawing	3	3	3	3	3	-	15
2nd	Practical	9	9	9	9	9	9	54
	Lecture	15	15	15	15	15	15	90
	Tutorial	8	8	8	8	8	8	48
3rd	Practical	8	8	8	8	8	8	48
	Lecture	16	18	16	18	17	15	100
	Tutorial	4	5	5	5	6	8	33
4th	Practical	11	13	9	13	10	10	66
	Lecture	14	17	16	17	17	15	96
	Tutorial	4	4	5	4	6	6	29
5th	Practical	10	11	9	11	9	12	62
	Lecture	16	17	16	17	14	15	95
	Tutorial	2	5	3	5	8	6	29
6th	Practical	10	12	9	12	10	12	65
	Lecture	15	12	15	12	12	15	81
	Tutorial	9	7	7	7	7	8	45
	Practical	6	7	6	7	7	8	41
7th	Project	2	3	3	3	3	3	17
	Lecture	8	8	6	12	5	6	45
	Tutorial	13	10	9	4	8	6	50
	Practical	-	4	-	4	6	6	20
8th	Project	14	12	16	12	12	14	80
	Lecture	112	115	112	119	108	110	676
	Tutorial	53	52	50	46	56	54	311
	Drawing	8	8	8	8	8	4	44
	Practical	63	73	59	73	68	74	410
Total	Project	16	15	19	15	15	17	97
Тс	otal	252	263	248	261	255	259	1578

This data will be used to compute the class room requirement.

2. Example

The institution admits 60 students to each of the six programs it is offering. Hence all the rooms required for the theory classes as well as the drawing halls must accommodate 60 students.

For tutorial work the class strength will be 20-30. To provide the necessary flexibility as well as convenience in the design of college building, it is considered desirable to have all tutorial class rooms with a capacity to accommodate 30 students.

In such case weekly hours of engagement of the class rooms, tutorial rooms and drawing halls for the odd and even semester will be as given below:

Semester	Weekly Hours of Engagement				
		Tutorial Rooms	Drawing Halls		
	Class Rooms	(Capacity	(Capacity		
	(Capacity 60)	30x2)	60)		
Odd Semester					
1st	85	70	29		
3rd	90	96	-		
5th	96	58	-		
7th	81	90	-		
Total of Odd					
Semesters	352	314	29		
Even Semester					
2nd	84	84	15		
4th	100	66	-		
6th	95	58	-		
8th	45	94	10*		
Total of Even					
Semesters	324	302	25		

**indicates provision of two contact hours for project work.*

Considering the higher of the requirements of even and odd semesters, the hours per week with different types of class rooms required can be summarized as given below:

•	Number of hours per week during which Class rooms of 60 capacity are required	= 352
•	Number of hours per week during which Tutorial rooms of 30 capacity are required	= 314
•	Number of hours per week during which	

• Number of hours per week during which Drawing halls of 60 capacity are required = 29

If every class room, Tutorial room and Drawing hall is engaged for all the 34 hours available in a week the number of class rooms, tutorial rooms and drawing halls required will be given below

Class rooms (60 capacity)	= 352/ 34	= 10.35
Tutorial rooms (30 capacity)	= 314/34	= 9.23
Drawing Hall (60 capacity)	= 29/34	= 0.85

However, in any institution, it is impracticable to draw up a time table which can give 100% engagement of all the class room, tutorial rooms and drawing halls during the working hours of the institution. The utilization factors of these different types of rooms will vary between 0.8 and 0.75. An utilization factor of 0.8 can be taken for

arriving at the minimum norm whereas the desirable norm excepting in case of drawing halls will be based on an utilization factor of 0.75.

The desirable norm for the number of drawing halls will have to be based upon the requirements of conducting the university examination for all the students at one time. As such the desirable norm for an intake of 360 is 6 drawing halls each of 60 capacity. When the institution does not fulfill such a desirable norm, it should keep in stock adequate number of drawing boards so that there is no difficulty in conducting the drawing examinations of 1^{st} and 2^{nd} semester classes.

Hence the actual number of class room, tutorial room and drawing halls required for the institution under consideration will be given below:

Minimum norm

•	Number of class rooms that can accommodate 60 students	=	10.35/0.8	=	12.94	i.e. 13
•	Number of tutorial rooms that can accommodate 30 students	=	9.23 /0.8	=	11.53	i.e. 12
•	Number of drawing halls that Can accommodate 60 students	=	0.85/0.8	=	1.06	i.e. 2
•	Desirable norm Number of class rooms that Can accommodate 60 students	=	10.35 /0.75	=	13.8	i.e. 14
•	Number of tutorial rooms that Can accommodate 60 students	=	9.23 /0.75	=	12.53	i.e. 13
•	Number of drawing halls Can accommodate 60 students	=	360/60	=	6	

The same norms can also be arrived at by using the relationship under section 4.3.1, Sample calculation is given below:

In the case of Lecture Rooms

NL = (TL/SL) (HL/HW) (1/FL)

In the example under consideration:

- NL = Number of rooms required for the lecture classes with a strength of 60 students (to be computed).
- SL = Class strength which in this case is 60:
- TL = Total number of students in the college belonging to all classes of all disciplines attending theory classes in groups of 60, which in this case is 1440.

- HL = Average number of lecture hours per week per class requiring lecture rooms of capacity 60 which in this case will be approximately 15.
- HW = Number of working hours per week which can be taken as 34.
- FL = Utilization factor whose value for minimum norms is to be taken as 0.8 and for desirable norms as 0.75.

Hence NL =	(144	0/60) (15/34)(1/FL)	=	(10.588/FL)
Minimum norm	=	(10.588/0.8) = 13	.23 i.e.	14
Desirable norm	=	(10.588/0.75) = 14	.11 i.e 1	5

In the case of Tutorial Rooms,

NT = (TT/ST) (HT/HW)(1/FT)

Where,

- NT = Number of rooms required for the tutorials classes with a strength of 30 students (to be computed).
- TT = Total number of students in the colleges belonging to all classes of all disciplines attending tutorial classes in group of 30, which in this case is 1440.
- ST = Class strength; this will be 30.
- HT = Average number of tutorial hours per week per class requiring tutorial rooms of capacity 30, which in this case will be approximately 7.
- HW = Number of working hours per week, which can be taken as 34.
- FT = Utilization factor, whose value of minimum norms is to be taken as 0.8 and for desirable norm as 0.75.

Hence, NT	=	(1440/30) x (1/FT)	=	(9.88/FT)
Minimum norm	=	(9.88/0.8)	=	12.35 i.e. 13
Minimum norm	=	(9.88/0.75)	=	13. 17 i.e. 14

In Case of Drawing Halls,

ND = (TD/SD) (HD/HW) (1/FD)

Where,

- ND = Number of rooms required for the drawing and design work to accommodate 60 students (to be computed)
- SD = Class strength, which in this case is 60.

TD	=	Total number of students in the college belonging to all classes in all disciplines attending drawing and design classes in group of 60 which in this case is $360 + 300 = 660$ (360 for all students of 2^{nd} Semester)					
HD	=	Average number of hours of drawing an design work per week per class requiring drawing halls of capacity 60, which will be approximately 2.75.					
HW	=	utilization factor , whose value for minimum norm is to be taken as 0.8					
Hence	e ND	$= (660/60) (2.75/35) \times (1/FD) = (0.86 / FD)$					

Minimum norm	=	(0.86/0.8)	=	1.0	i.e. 1	
Desirable norm	=	(Admission s	trengtl	n/class st	rength of	1st semester)

(Based on examination requirements) = (360/60) = 6

Content of a Feasibility Study Report

The organisation wishing to establish an engineering college should submit a detailed feasibility report. This report must take into account the following considerations and present the findings in a comprehensive manner.

1. Needs Assessment with reference to

a) National / Regional Plans;

b) Current status / assessment of Engineering education in the country;

c) Status of Engineering manpower (abroption / unemployment / brain drain) and the assessment of their likely future trend;

d) Residental / non- residental .

2. objectives and strategies including ;

- a) Student enrollment plan
- b) University affiliation

c) Dealing with the program which is not being currently offered by Universities / Institutions .

d) Financial & academic sustainability (including transfer of students in case of academic suspension).

3. Technical layout of the physical infrastructure including the status of current availability and future development and its compliance status with the Norms & Standards of Nepal Engineering Council supplemented by Master Plan (with emphasis on suitability , sustainability and future development prospects).

4. List, if any of the physical infrastructures, laboratory / workshop equipment, books & journals, furniture, computers and other essential facilities if are available in advance.

5. Procurement plan of goods and services including physical infrastructures (stages), laboratory / workshop equipment, books & journals, furniture and other essential facilities as per the Norms & Standards of Nepal Engineering Council.(It should describe the nos. packages, sources, methods of procurement, tentative costs and tentative schedule of commissioning plan as far as possible).

6. The faculty and staff development plan confirming the standards set out by the Norms and Standards of Nepal Engineering Council. This should include a tentative list of proposed faculty , key staff and their academic qualification and experiences .

7. The proposed financial analysis with the projection of annual revenue and annual cost (investment, operation and maintenance, etc.) for a period of 15 years and the estimation of economic and financial returns.

8. Details of the proposed financial plan and mechanism to finance the institutions including the statement on sustainability .

9. Statements agreeing to follow any changes in Norms and Standards or policies and procedures specified at any time by Nepal Engineering Council.

Major Equipment Requirement for Laboratories / Workshops

Part A is required for the first year (Semester I and Semester II) education of all the engineering programs. Therefore they are required for all engineering colleges. Such equipments must be available in house for regular class work of the students.

Part B is the program specific. Colleges offering each program are required to arrange the laboratory equipments of the related program/s only.

Equipments are suggested to meet the general requirements. However, they may vary depending upon the requirement of the curricula of the respective university. If such curricula demands different sets of equipments. Colleges should prepare their own list of equipments to include all the experiments covered.

S. No.		List of Equipment	Nos. of Setup	Domoniya	
5. No.			Required	Remarks	
1.		IYSICS			
	So	urce of Light:			
	a	· · ·	2		
	b	Mercury Cadmium lamp	2		
	O	otical Instruments:			
	a	Traveling Microscope	2		
	b	Spectrometer	2		
	c	Polarimeter	2		
	Ac	ccessories related to Optical			
	In	strument:			
	a	Setup for Newton's Ring	2		
	b	Gratings	2		
	с	Prisms	2		
	d	Polarimeter tubes	2		
	Os	scillation Related:			
	a	Compound pendulum	4		
	b	Ultrasound generator and	4		
		accessories			
	Os	scillator Circuits:			
	a	LCR circuits related accessories.	4		
	Μ	agnetism:			
	a	Ballistic galvanometer	4		
	b	Search coil	4		
	с	Electromagnet	4		
	d	Bar magnet	12		
	e	Horse shoe magnet	12		
	El	ectricity			
	a	voltage regulator	4		
	b	System for measuring low	4		
		resistance			
	с	System for the study of capacitor	4		
	Μ	easuring Instruments:			
	a	Ammeters, Voltmeter,			
		Multimeters,			
		Oscilloscopes, Physical and	4 each		
		electronic balances, Scales			

PART `A' : General Requirements

S. No.		List of Equipment	Nos. of Setup	Remarks
			Required	
2.	Chem	istry: (equipments, glass wares and consumables)		
	a	Burette – 50 ml.	20	
	b	Pipette – 100 ml, 50 ml, 25 ml, 10 ml	20 each	
	с	Volmetric flask – 250 ml, 500 ml. 1000 ml.	20 each	
	d	Volmetric flask – 100 ml.	20	
	e	Conical flask – 500 ml, 1000 ml.	20 each	
	f	Conical flask – 25 ml, 100 ml.	20 each	
	g	Viscometer	4	
	h	Stop watch	20	
	i	Graduate pipette – 10 ml.	20	
	j	Test tubes stand/holders	20	
	k	Stand	20	
	1	Oven	1	
	m	Weighting machine, electrical and digitals	2	
	n	Measuring cylinders – 2000 ml, 1000ml, 500 ml	10 each	
	0	Measuring cylinders – 250 ml, 100 ml, 25 ml, 10 ml.	20 each	
	р	Condenser	4	
	q	R.B flask	4	
	r	BOD Bottle (125 ml.)	4	
	S	Picnometer	4	
	t	Ph meter	4	
	u	Magnetic stirrers	4	
	v	Reagent bottles – 10 lit, 5 lit, 1 lit, 500 ml, 250 ml, 100 m	10 each	
	W	Dessicators	20	
	Х	Funnel	20	
	у	Beaker - 1 lit, 2 lit, 300 ml.	20 each	
	Z	Gas burner	20	
	aa	Tongues	20	
	bb	Freeze/Refrigerator	1	
	сс	Plastic Beaker	20	
	dd	Crucible	20	
3.	Comn	unication		
	a	Student Magnetic tape play / record	20	
	b	Student control unit	20	
	С	Headsets	20	
	d	Master magnetic tape play/record unit	20	
ļ	e	Instructor's control console	1	
	f	Portable video recorder	1	
	g	VCR player / recorder	1	
	h	Television monitor	1	
	i	VHS tape for television recording	10	
	j	Slide projector	1	
	k	Overhead project	1	
	1	Portable screen	1	

S. No.		List of Equipment	Nos. of Setup	Remarks
			Required	
4		ermal Science		
	a 1	Pressure Measurement bench	1	
	b	Temperature measurement bench		
	c	Refrigeration demonstration unit	l	
	d	Thermal conductivity unit	1	
	e	Efficiency of compressor study unit	1	
	f	Performance study of a small internal	1	
	â	combustion engine set Thermal radiation apparatus	1	
5	g Do		1	
5		Nom Analog Millimator	1	
	a h	Vom Analog Millimeter	4	
	b	Vom Digital Millimeter	4	
	с	DC Volt meter	4	
	d	DC Ammeter	4	
	e	AC/DC Voltmeter	4	
	f	AC/DC Ammeter	4	
	g	EM Wattmeter	4	
	h	Digital Voltmeter	4	
	i	3-Ph R Load unit	1	
	j	3-Ph C Load unit	1	
	k	3-Ph L Load unit	1	
	1	Impedance bridge	4	
	m	1-Ph Transformer	2	
	n	Various range Rheostats	10	
	0	DC Motors-Cmpnd	1	
	p	DC starters	1	
	q	1 Ph Induction Machine	1	
	r	1 Ph Wattmeter	4	
	s	3 Ph Wattmeter	4	
	-			
	t	DC Motor Controller	2 2	
(u D	AC motor Controller	۷	
6		sic Electronics Engineering		
	a 1	Power Supply Units	5	
	b	Analog Oscilloscopes 20 MHZ	5	
	с	Electronic Kits for various experiments	5 each	
	d	Digital Multimeters	2	
	e	Computers	5	

S. No.	List of Equipment		Nos. of Setup Required	Remarks
7	Wor	ked Shop Practice		
	Mac	hine Shop		
	a	Lathe Machine	1	
	b	Milling Machine	1	
	c	Shaper Machine	1	
	d	Drilling Machine / Bench	1	
	e	Table Grinder	1	
	f	Power saw (Hacksaw)	1	
	Wel	ding Shop		
	a	Electric Arc Welding Set	2	
	b	Gas Welding Set	2	
	с	Welding Eye Shield	4	
	d	Welders Gloves	4	
	e	Welding Bench	4	
	f	Other Accessories	Lot	
	Shee	et Metal Shop		
	а	Table Vice	8	
	b	Metal Scissor	8	
	c	Wooden and Plastic Mallets of Different Types	8 sets	
	d	Metal Hammers of Different Types	8 sets	
	e	Soldering Station	2 sets	
	f	Riveting Machine	1	
	g	Grinding Machine	1	
	h	Marking and Measurement Instruments	8 sets	
	i	Other Accessories	Lot	
	Ben	ch Working Shop		
	a	Table Vice	12	
	b	Hacksaw with Blades	12	
	с	Hammers of different types	12 sets	
	d	Files of Different types	12 sets	
	e	Marking and measuring instruments	12 sets	
	f	Other accessories	Lot	

PART B : PROGRAM, SPECIFIC LABORATORIES : Some basic equipments are listed here. Laboratories and equipments should be available to cover all the requirements of the course of studies prescribed by the affiliating university.

S.			Nos. of	Remarks	
No.		List of Equipment	Setup Required	Remarks	
1	Civ	vil Engineering Materials and Concrete	Kequireu		
1		chnology			
	a	Metallurgical optical microscope	1		
	b	Rock well Hardness tester	1		
	с	Charpy impact tester	1		
	d	Sieve shaker with standard sieve sets	1		
	e	Los Angeles Abrasion testing machine	1		
	f	Cement autoclave	1		
	g	Compression testing machine	1	2000 kN	
	h	Flexure testing machine (100 kN)	1		
	i	Platform balance	1		
	j	Electronic balance	1		
	k	Oven	1		
2.	Str	ength of Materials			
	a	Universal testing Machine	1	(2000KN)	
	b	Torsion testing machine	1		
	с	Beam bending apparatus	1		
	d	Column behavior and buckling apparatus	1		
	e	Hooke's Law apparatus	1	(Tensile testing machine)	
3.	Hy	draulics, Fluid Mechanics and Hydrology			
	a	Hydraulic bench with accessories	1 set		
	b	Impact of jets apparatus	1		
	с	Centre of pressure apparatus	1		
	d	Stability of floating body apparatus	1		
	e	Reynolds' apparatus	1		
	f	Head loss in pipe and fittings	1		
	g	Basic hydrology system	1 set		
	h	Pressure measurement bench	1		
	i	Drainage and seepage tank	1		
	j	Model sedimentation tank	1		
	k	Automatic rain gauges	1		
	1	Magnetic current meter with sounding weight	1		
	m	Pan evaporator meter	1		
	n	Water level recorder	1		

<u>1. Civil Engineering Program</u>

S. No.	List of Equipment		Nos of Setup Required	Remarks
4.	Sur	veying	•	
	а	20" Theodolite - vernier	2	
	b	20 " Theodolite - micrometer	4	
	с	3. 1" Theodoite- Electronic Micrometer	2	
	d	Distomat (EDM) or Total Station	1	
	e	Precision level	1	
	f	Auto level	10	
	g	Tilting level	2	
	h	Dumpy level	2	
	i	Plane table instrument	5	
5.	Ana	lysis of Structure	-	
	a	Beam BM influence line set	1	
	b	Beam SF influence line set	1	
	c	Beam set with various support conditions	1	
	d	Plane frame for measurement of Bar Forces and	1	
	u	Deflection	1	
	e	Two hinged arches	1	
	f	Three hinged arches (symmetrical and	2	
		unsymmetrical)		
	g	Suspension bridge test set	1	
	h	Continuous beams test set	1	
	i	Portal frames (Symmetrical and Unsymmetrical)	2	
	j	Dial gauges	10	
6.	Soil	Mechanics		
	а	Sieve shaker with sieve sets		
		Coarse series – 80 mm to 4.75mm	1 set	
		Fine series – 4.75 mm to 0.75mm	1 set	
	b	Apparatus for Atterberg's limits	1 set	
	с	Oven	1	
	d	Compression testing machine	1	1000 kN
	e	Direct shear apparatus with lever loading	1	1000 111
	Ũ	arrangement with shear box size 10 cm. x 10 cm	-	
	f	Permeability apparatus for falling & constant head	1	
		method		
	g	Triaxial testing equipment with load frame,	1	
		pressure cell unit, triaxial cell and other		
	1.	accessories	1	
	h ·	Standard penetration testing equipment	1	
_	1	Augur set for shallow drilling	1 set	
7.		nsportation Engineering		
	a	Consolidation test apparatus	1	
	b	Losangeles Abrasion testing equipment	1	
	с	CBR test apparatus	1	
	d	Compaction moulds -4 " ϕ and 6" ϕ with Rammers of weight 2.5 kg & 4.5 kg respectively	1	

S.		List of Equipment	Nos. of Setup	Remarks	
No.			Required		
	e	Aggregate crushing moulds with plunger 6"¢	1		
	f	Aggregate Impact Testing machine	1		
-	g	Apparatus for Penetration test of bitumen	1		
	h	Apparatus for Ductility test of bitumen	1		
	i	Apparatus for Flash & fire point test of bitumen	1		
	j	Apparatus for Softening point test of bitumen	1		
	k	Apparatus for Viscosity test of bitumen	1		
	1	Apparatus for Marshall stability test of bituminous mix	1		
	m	Benkelman beam test set	1		
	n	Skid test on pitched road surface	1		
8.	Env	ironmental Engineering			
	а	Distilled water generator	1		
	b	Electronic turbidimeter	1		
	c	Electronic pH meter	1		
	d	Photoelectric colorimeter	1		
	e	Digital D. O. Analyser	1		
	f	Jar test apparatus	1		
	g	Field kits for measurement of water qualities parameters	1		
	h	Electronic balance	1		
	i	Oven	1		
	j	Refrigerator	1		
9.	Stru	ictural engineering		May be shared with other colleges	
	а	Gantry girder for lifting & placing	1		
	b	Loading frames	1		
	с	Loading devices	1		
	d	Strain measurement instruments	1		
10.	Hyd	lropower engineering		May be shared with other colleges	
	а	Pelton turbine test set	1		
	b	Francis turbine test set	1		
	с	Kaplan turbine test set	1		
	d	Centrifugal pump test set	1		
	e	Universal pump test set	1		
			i i	1	

Note: If some of the laboratories are shared, colleges must ensue that all the experiments are performed by the students on time. Electrical Engineering

2.

S. No.		List of Equipment	Nos. Required	Remarks
1.	Maint	enance Shop		
	a	Lathe	1	
	b	Drill press	1	
	с	Grinder	1	

S.		List of Fauirmont	Nos.	Remarks
No.		List of Equipment	Required	Kemarks
	d	Soldering stations	2	
	e	Disordering station	1	
	f	Gas welder	1	
	g	Meter calibration Bench	1	
	h	Electrical tool kits	4	
	i	Mechanical tool kit	4	
	j	Impedance bridge	1	
	k	Tester/curve tracer	4	
	1	Dual channel oscilloscopes	2	
	m	Function generators	2	
	n	Digital multi meters	4	
	0	Stroboscope taco	2	
	р	Insulation tester	2	
	q	Decade R Box	2	
	r	Decade C Box	2	
	S	Decade L Box	2	
2.	Electr	ical Machines Laboratory		
	a.	Single phase Transformers	2	
	b.	Various range Rheostats	10	
	с.	3 - ph R load units	1	
	d.	3 - ph C load units	1	
	e.	3 - ph L load units	1	
	f.	DC Dynamometers	1	
	g.	DC motors – cmpnd	1	
	h.	3 – ph slip ring machines	1	
	i.	3 - ph synch machines	1	
	j.	3 - ph ind macnines	1	
	k.	DC starters	1	
	1.	DC Voltmeters	1	
	m.	DC ammeters	10	
		AC/DC voltmeters	10	
		AC/DC ammeters	10	
		1 - ph watt meters	10	
	<u> </u>		10	
	r.	VOM multi meters	2	
		Power supply modules	2	
	t.	Power electric trainers	2	
	u.	DC motor controllers	2	
	v.	Ac motor controllers	2	
		Dual Channel oscilloscopes	4	
	X.	Gauss meters	4	

S. No.		Laboratory / List of Equipment	Nos. Required	Remarks
3.	Measur	ement. Instrumentation and Control	•	
	a	DC servo systems	2	
	b	Digital adds	2	
	с	Inst & Xder kits	2	
	d	Robot trainers	1	
	e	Fluid level control trainers	1	
	f	Temperature control trainer	6	
	g	Dual channel oscilloscopes	4	
	h	Function generators	4	
	i	VOM multi meters	4	
	i	Strip chart records	4	
	k	Computer	4	
4.	Basic Ci		-	
	a.	VOM analog multimeters	4	
	b.	VOM digital multimeters	4	
	с.	DC voltmeters	4	
	d.	DC ammeters	4	
	и. е.	AC\DC volt meter	4	
	f.	AC/DC ammeters	4	
		E/M watt meters	4	
	g. h.	AC ammeters	4	
	i.	Current transformers	4	
	1.	Digital voltmeters	4	
	J. 1r		4	
	k.	3 – ph R load units		
	l.	3 – ph C load units	1	
	m.	3 – ph L load units	1	
	n.	Dual channel oscilloscopes	4	
	0.	Function generators	4	
	р.	Impedance bridge	6	
	q.	Harmonic analyzers	4	
	r.	Computer	4	
5.	a.	Power System Engineering (5 – 20) KW small hydro generating plant complete with hydraulics, mechanical and civil structures, equipment, control panels, accessories and spares OR A hydrogenating plant simulator for study purpose with reasonable degree of hardware simulation depicting all essential operating, control, protection and	1	
	b.	maintenance features of a small hydropower plant. 11KV switch board 400 Amp with two O.C.B's Transformer protection and control panel. Rural feeder with Auto Reclosing Spares translate protection system	1	
	с.	Step up transformer 380/11000 volt 3 phase 200 KVA complete with Bucholz relay & spares.	1	

S.	Laborat	ory / List of Equipment	Nos.	Remarks
No.			Required	
	d.	11 KV 350 MVA 400 Amp ring main unit		
		with cable oil switch. 11KV fuse unit	1	
		and spare fuses.		
	e.	Governor & Diesel engine generator	1	
		demonstration equipment		
	f.	High voltage indicator set. avometers. hand	1	
		tools.		
	g.	Secondary injection test set.	2	
	h.	Primary injection test set	1	
	i.	50 KV. D. C cable test set	1	
	j.	Insulating oil B. D. test set.	1	
	k.	U/G cable tracing outfit	1	
	1.	Oil Treatment Plant and Spares	1	
	m.	Tachometers, current transfers	1	
	n.	Transformer winding temp prot.	1	
	0.	Line earthling equipment	1	

3.	Electronics Engineering, Electronics and Communication Engineering					
S.		List of Equipment	Nos.	Remarks		
No.		List of Equipment	Required	Kemarks		
1.	Electr	onics Engineering	_			
	Dual	trace analog oscilloscope, 20 MHz	5			
		Function generator	5			
	b.	Pulse generator	5			
	с.	Frequency counter, 10 Hz to 100 Mhz	5			
	d.	Digital Multi meter	5			
	e.	Power supply dual output	5			
	f.	Computer	5			
	g.	Decade resistance	5			
		Decade capacitance	5			
	i.	Curve tracer	2			
	j.	Electronics trainer	5			
		Digital logic trainer	5			
2.		nced Electronics				
	a.	Computers	10			
	b.	Dual trace analog oscilloscope, 30	5			
		MHz				
	с.	X - Y position trainer	2			
	d.	Solid stage logic trainer	2			
	e.	Robotic trainer	2			
	f.	Electronics trainer	5			
	g.	Transducer trainer	5			
	h.	Microprocessor trainer	5			
	i.	Control trainer	2			
	j.	Spectrum analyzer	2			
3.	Electr	omagnetic & Microwave				
	a.	Complete microwave trainer	5			
	b.	Dual trace analog oscilloscope, 20 MHz	5			
	с.	Computer	5			
	d.	power supply, UPS	5			
	e.	Function/ sweep generator	5			
	f.	Frequency counter (5 Hz to 30 MHz)	2			
	g.	True RMS voltmeter	5			
	h.	RF signal generator (up to 300 MHz)	5			
	i.	power supply units 220 V AC/0 – 30 V	5			
	<u> </u>	DC, 10 A				
	j.	Multi meter	5			
	k.	Spectrum analyzer	2			

3. Electronics Engineering, Electronics and Communication Engineering

4.	Com	munication			
	a.	Complete microwave trainer	5		
	b. Analog dual trace oscilloscope, 50 MHz		3		
	с.	Antenna trainer			
	d.	d. Fiber optics experiment kit			
	e.				
	f.	Analogue communication trainer	5		
	g.	Functions/sweep generator	5		
	h.	Frequency counter (5 Hz to 300 MHz)	2		
	i.	True RMS voltmeter	5		
	j.	RF signal generator (up to 300 MHz)	5		
	k.	Power supply units 220V AC/ 0 - 30 V DC, 10A	5		
	1.	Digital Communications trainer	3		
	m.	Optical communication trainer	3		
	n.	Multi meter	5		
	0.	Telephone exchange trainer with accessories	1		
	p.	Spectrum analyzer	2		
5.	Printed Circuit Board				
	a	Circuit board production machine	1		
	b	Computer	1		
	с	Planting machine/Tank	1		
	d	Accessories for main circuit board production machine	lot		
6.	Project Work (Optional)				
	a.	High frequency spectrum analyzer	1		
	b.	Low frequency spectrum analyzer $0 - 15$ MHz	1		
	с.	Electronic multi meter, precision type	1		
	d.	Precision power supply	1		
	e.	RF signal level strength meter	1		
	f.	Frequency counter.	1		
	g.	15 – channel logic analyzer	1		
	h.	4-channel 100 MHz oscilloscope	1		
	i.	Dual channel 100 MHz digital oscilloscope	1		
	j.	DVM	1		
	k.	Curve tracer	1		
	1.	Unix workstation with mentor graphics, matlab, C lab	1		
		view, H spice soft wares			
	m.	Parameter analyzer	1		
	n.	RLC bridge meter	1		

4. Mechanical Engineering

S. No.	Laboratory / List of Equipment		Nos.	Remarks
			Required	Kunai K5
1.	Ther	modynamics & Heat Engineering		
	a.	Mechanical equivalent of heat apparatus	1	
	b.	Temperature measurement bench	1	
	с.	Air compressor test unit	1	
	d.	Refrigeration demonstration unit	1	
	e.	Absorption refrigeration	1	
	f.	Air conditioning unit	1	
	g.	Thermal conductivity unit	1	
	h.	Engine test bed and dynamometer	1	
	i.	Thermal radiation apparatus	1	
	j.	Heat conduction apparatus	1	
	k.	Heat exchanger unit	1	
	1.	Free and forced convection apparatus	1	
	m.	Boiling heat transfer apparatus	1	
	n.	Solar thermal panel experimental unit	1	
	0.	Photovoltaic panels study unit	1	
	p.	Wind energy rig	1	
2	Fluid	Mechanics and Fluid Machines		
	a.	Hydraulic bench	1	
	b.	Hydrostatic pressure measuring unit	1	
	с.	Flow meter demonstration	1	
	d.	Flow visualization apparatus	1	
	e.	Bernouli's theorem demonstration kit	1	
	f.	Impact of jet	1	
	g.	Energy loss in pipes & bends	1	
	h.	Pelton turbine demonstration	1	
	i.	Francis turbine demonstration	1	
	j.	Pressure measurement bench	1	
	k.	Centrifugal pump test	1	
	1.	Air flow studies in piping	1	
3.	Mecl	hanics of Solid		
	a.	Torsion testing machine	1	
	b.	Beam bending test apparatus	1	
	с.	Thin cylinder apparatus	1	
	d.	Load unit assembly	1	
	e.	Column behavior and buckling apparatus	1	
	f.	Mono cooler microscope	1	
	g.	Metalograph	1	
	h.	Grinder – polisher	1	
	i.	Micro hadrness tester	1	
	j.	Metalographic sample	1	
	J. k.	Fatigue machine	1	

S.	List of Equipment		Nos.	Remarks
No.			Required	
4.	Mecha	nism and Machine Dynamics		
	a.	Mechanical speed governor	1	
	b.	Vibration measurement system	1	
	с.	Balancing apparatus	1	
	d.	Shaft whirl apparatus	1	
	e.	Oscilloscope	1	
	f.	Multimeter	1	
5.	Instru	mentation, Control and Measurement		
	a.	Transducers and instrumentation kit	1	
	b.	Static pressure transducers calibration	1	
		apparatus		
	с.	Periodic signals instrumentation	1	
	d.	Temperature and air flow measurement	1	
		apparatus		
	e.	Pneumatic control	1	
	f.	Hydraulic control system	1	
	g.	Simulation study of feedback system	1	
		unit		

5. Computer and IT Engineering

Requirement of Computer Laboratories have been dealt under section 6. Course of Studies also contains courses related to electronics and communication engineering. The laboratories must be available as per the list of electronics engineering so that all the laboratory work can be conducted in the college.

The college shall maintain necessary softwares to conduct experiments as per the requirements of the curricula of concerned university. Such software includes but not limited to GIS software , data mining softwares, data warehousing softwares , Enterprise Recourse Planning software , software development tools etc.

Attachment IV

Requirement of Furniture

C N-	Τ4	Furniture		
S.No.	Item	Minimum	Desirable	
1.	Class rooms and Tutorial rooms			
	Student desks & seats	To accommodate max.	To accommodate max. class	
		class strength in all the	strength in all the rooms	
		rooms		
	Table & chair for Teacher	1 set for each room	1 set for each room	
	Chalk – Board	1 of size2.5 m x lm for	1 of size 3.75 m x lm for each	
		each room	room	
2.	Drawing Halls			
	Drawing Tables & Stools	1 set per student class	1 set per student class strength in	
		strength in all halls	all halls	
	Table & Chair for Teachers	1 long table & 2 chairs	1 long table & 4 chairs	
	Chalk - Board	1 of size 3.0 m x 1m each	1 of size 3.75 m x 1m each hall	
		hall		
3.	Laboratories			
	Student work benches with stools	Set of work bench to	Set of work bench to accommodate	
		accommodate 4 students	4 students with 4 stools for the	
		with 4 stools for the	maximum batch strength in all	
		maximum batch strength	laboratories excepting chemistry	
		in all laboratories	Lab	
		excepting chemistry Lab		
	Steel Almirah	1 per lab	2 per lab	
	Storage racks	As required	As required	
	Chalk board	1 of size 3.0 m x 1m in	1 of size 3.75 m x 1m in each	
		each laboratory	laboratory	
	Tables & Chairs for Teacher	1 Table and 2 Chairs per	2 Table and 2 Chairs per lab.	
		lab.		
4.	Computer Center	1 77 11 1 1 1 1		
	Student Tables & stools	1 Tables and a stool for	1 Tables and a chair for each	
		each terminal.	terminal and printer per lab.	
	Teacher's Table and Chair	1 Tables & 2 Chairs	1 Tables & 2 Chairs	
_	Steel Almirah	2	4	
5.	Workshop			
	Work benches	1 for 2 students for	1 for 2 students for maximum	
		maximum batch size	batch size	
	Steel Almirah	1 per shop	1 per shop	
	Tool storage racks	As required	As required	
	Chalk Board	1 of size 1 m x 1.5 m in	1 of size 1 m x 1.5 m in each shop	
		each shop		
	Table and chair for Teachers	Set of 1 Table & 2 chairs	Set of 1 Table & 2 chairs	
	Furniture for Technical Supporting	1 Table and 3 Stools I each	1 Table and 3 Stools I each shop	
	Staff	shop		

6.	Library			
	Reader's Tables and Chairs	1 set per reader for the capacity of	1 set per reader for the	
		the reading hall	capacity of the reading hall	
	Book Racks	Double faced racks to	Double faced racks to	
		accommodate 4200 Books initially	accommodate 7000 Books	
			initially	
	Reference Shelves	6 almiralhs with glazed shutters	8 almirahs with glazed shutters	
	Periodicals stands	Rack with display & storage	Rack with display &	
	i enouicuis stunds	shelves as per needed	storage shelves as per	
			needed	
	Catalogue cabinets	Each with 4 cataloguing trays as	Each with 4 cataloguing	
		per need	trays as per need	
	Furniture for Librarian	1 Table, 3 Chairs and 1 Filing	1 Table, 3 Chairs and 1	
		Cabinet	Filing Cabinet	
	Furniture for Assistants	1 set of Table & Chairs for each	1 set of Table & Chairs for	
	Librarian and Cataloguers	person	each person	
	Notice Boards	2		
7.	Instructional Resource Centre			
	Tables	6		
	Chairs	8		
	Stools	2		
	Almirahs	2		
8.	<u>Reception Lounge</u>			
	Tables Chairs	1 set	1 set	
	Sofa set with Centre Table	1 set	1 set	
9	Health Clinic			
	Table	1 for Medical Officer		
	Chairs	1 for Medical Officer & 1 for each		
	Examination table	Para medicals		

विनियमावलीको परिच्छेद ३ सँग सम्बन्धित

Group		Descriterente	Full Mark	
		Requirements	Phase I	Phase II
1	Physical Infra-structure			
	Α	Land	6	6
	В	Building and space	12	12
	С	Furniture	2	2
2	Equip	ments and teaching/learning – Practical		
	Α	Laboratory Equipments	15	15
	В	Teaching/Learning and Practicals	5	5
3	Librar	y Books, Journals and Resource Center		
	Α	Books	10	10
	В	Journals	2.5	2.5
	С	Resource Center	2.5	2.5
4	Full ti	me Faculty		
	W	Number of permanent faculties	14	14
	X	Professional Principal	3	3
	Y	HOD;s Engineering Qualification	4	4
	Ζ	Qualification & status of Facualties	4	4
5	Admii	nistrative Staff/Lab and Workshop		
	Staff/I	Library Staff		
	Х	Administrative Staff	1	1
	Y	Laboratory and Workshop Staff	2.5	2.5
	Ζ	Library Staff	1.5	1.5
6	Contin	nuing Education and Faculty Development	10	10
6	Programme		10	10
7	Inspec	etors' Evaluation	5	5
		TOTAL	100	100

9. The weightage for evaluation shall be determined as follows. ³³

<u>स्पष्टीकरण</u>

- 9) उपरोक्त तालिकामा Phase I भन्नाले नयाँ स्थापना गर्न चाहने संस्थाको पहिलो व्याचको बिद्यार्थी भर्ना हुनु भन्दा अगावै परिषद्वाट गरीने निरीक्षणको समय^{३५}।
- ३) Weightage गणना गर्दा प्रत्येक Phase को छुट्टाछुट्टै गर्नुपर्नेछ ।

- ३४ ऐजनद्वारा भिर्ताकएको
- ३६ ऐजनद्वारा भिर्ताकएको

३३ पहिलो संशोधनद्वारा संशोधित

३४ ऐजनद्वारा भिकिएको

- ४) Laboratory हरुमा निम्न अनुसारको व्यवस्था गरेको हुनु पर्ने ।
 - क) परिषद्बाट Phase I को प्रयोजनको लागी निरिक्षण गर्न जाँदा सम्वन्धित बिश्वविद्यालयको पाठ्यकम बमोजिम अनुसुची ७ को Part-A मा उल्लेख भए बमोजिम हुनु पर्ने र दोश्रो वर्षको अन्त्य सम्मलाई चाहिने अनुसुची ७ को Part – B मा उल्लेख भए बमोजिम हुनु पर्ने ।
 - ख) परिषद्बाट Phase II को प्रयोजनको लागी निरीक्षण गर्न जाँदा सम्वन्धित बिश्वबिद्यालयको पाठ्यक्रम वमोजिम Phase – I पछि आवश्यक पर्ने सम्पुर्ण उपकरण सहितको Laboratory को व्यवस्था गरेको हन् पर्ने ।
- १) कुनै शिक्षण संस्थाले Part Time Faculty राखेको भए सो समेतको मूल्यांकन गरिने छ र त्यसको मूल्यांकन गरिदा २.४ Part Time Faculty लाई 1 full time faculty लाई गणना गरिनेछ <u>तर यो</u> प्रावधानको गणना Full time faculty को संख्या ४०% वा सो भन्दा माथि पुगेको अवस्थामा मात्र गर्न सकिनेछ^{३७}।

२.^३न

*अनुसूचि - ९

विनियमावलीको परिच्छेद ६ सँग सम्बन्धित

सहमति शुल्क :

 नयाँ विश्वविद्यालय/कलेज/क्याम्पस/शिक्षण संस्था स्थापना गर्न देहायको क्षेत्रमा देहाय बमोजिमको सहमति शुल्क लाग्नेछ :-

सि.नं.	क्षेत्र	सहमति निवेदन शुल्क	सहमति शुल्क
٩	काठमाण्डौं, ललितपुर र	रु. २०,०००।- (विस हजार)	रु.४,०००००।- (पाँच लाख)
	भक्तपुर जिल्ला भित्र		
२	अन्य महानगरपालिका र	रु. १२,०००।- (बाह्र हजार)	रु.३,०००००।- (तिन लाख)
	उपमहानगरपालिका र सो		
	को सिमानाबाट १० कि.मि.		
	सम्म		
३	अन्य नगरपालिका र सो को	रु. ९,०००।- (नौ हजार)	रु.१,०००००।- (एक लाख)
	सिमानाबाट १० कि.मि.सम्म		
8	अन्य ग्रामीण क्षेत्र तथा दुर्गम	रु. ४,०००।- (पाँच हजार)	ंशुल्क नलाग्ने ।
	क्षेत्रमा		

२. कार्यकम स्विकृति निवेदन शुल्क :

 नयाँ विश्वविद्यालय/कलेज/क्याम्पस/शिक्षण संस्था/थप कार्यक्रम/ स्वीकृत कार्यक्रममा बिद्यार्थी भर्ना क्षमता बुद्धि आबेदन शुल्क रु. २००१- प्रति बिद्यार्थी

३७ पहिलो संशोधनद्वारा संशोधित

३८ ऐजनद्वारा भिकिएको

३. निरिक्षण तथा अनुगमन शुल्क :

 सम्बन्धित शिक्षण संस्थाले देहाय बमोजिम प्रत्येक पटक कम्तिमा ३ जना निरीक्षणको लागि निरीक्षण तथा अनुगमन शुल्क बुफाउनु पर्नेछ । निरीक्षण तथा अनुगमन शुल्क परिषद्को बैंक खातामा जम्मा गर्नु पर्नेछ ।

देहाय,

^{*}शिक्षण संस्था अनुगमन शुल्क रु.४०,०००।- + रु.१०,०००।- [प्रति ४८ जना विद्यार्थी संख्या कक्षा स्वीकत क्षमता)]

- स्वाकृत क्षमता)]
- ४. स्वीकृति शुल्क : (थप कार्यक्रम/स्वीकृति कार्यक्रममा विद्यार्थी भर्ना क्षमता बृद्धि)
 - <u>अस्थाई स्वीकृति शुल्क</u> स्वीकृत भर्ना क्षमताको आधारमा प्रति सिट रु. ३००१- (एकपटक मात्र)
 - स्थाई स्वीकृति शुल्क स्वीकृत सीट संख्याको आधारमा प्रतिसिट रु. ४००१- (एकपटक मात्र)
- ५. विद्यार्थी भर्ना शुल्क :

विद्यार्थी भर्ना भएँ पछि प्रत्येक विद्यार्थी वापत एक पटक संस्थाले बुभाउन् पर्ने शुल्क रु. १०००।-^{३९}

^{*} परिषद्को मिति २०८०/०४/१२ को निर्णय बमोजिम संसोधन गरिएको । ३९ दोश्रो संसोधनद्वारा थप ।