

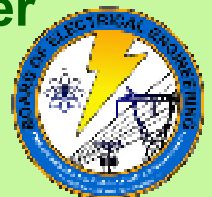
HOW TO BECOME A Professional Electrical Engineer

Board of Electrical Engineering
Professional Regulation Commission

FORTUNATO C. LEYNES, MBA, FIIEE
Chairman

JAIME V. MENDOZA, MTM, SMIIIEE
Member

FRANCIS V. MAPILE, BBM, FIIEE
Member

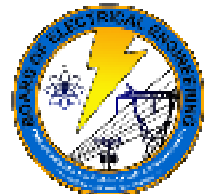




Qualifications for Registration as Professional Electrical Engineer

(RA 7920 Art. III, Sec. 16)

- citizen of the Philippines;
- of good reputation with high moral values;
- has not been finally convicted by the court of an offense involving moral turpitude;
- holder of the degree of Bachelor of Science in Electrical Engineering (BSEE) from a university, school, college, academy or institute duly constituted, recognized and accredited by the Philippine government; and,
- a registered electrical engineer with valid certificate of registration and professional license and with four (4) years or more of active practice reckoned from the date of his registration as a registered electrical engineer.

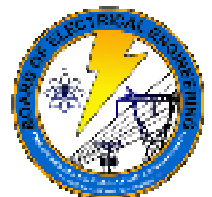




Practice of Electrical Engineering

(RA 7920 Art. I, Sec. 2a)

1. Consultation, investigation, valuation and management of services requiring electrical engineering knowledge;
2. Design and preparation of plans, specifications and estimates for electric power systems, power plants, power distribution system including power transformers, transmission lines and network protection, switchgear, building wiring, electrical machines, equipment and others;
3. Supervision of erection, installation, testing and commissioning of power plants, substation, transmission lines, industrial plants and others;

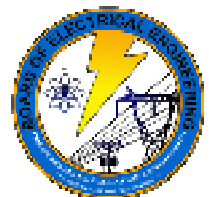




Practice of Electrical Engineering

(RA 7920 Art. I, Sec. 2a)

4. Supervision of operation and maintenance of electrical equipment in power plants, industrial plants, watercrafts, electric locomotives and others;
5. Supervision on the manufacture and repair of electrical equipment including switchboards, transformers, generators, motors, apparatus and others;
6. Teaching of electrical engineering professional subject; and
7. Taking charge of the sale and distribution of electrical equipment and systems requiring engineering calculations or applications of engineering data.

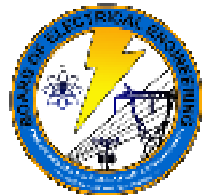




Requirements for Registration as Professional Electrical Engineer

(Rule 14, IRR RA 7920)

1. PRC Application Form (PRC Form No. 101)
2. Permanent Registration Record Card (PRC Form No. 203)
3. Proof of Philippine Citizenship, e.g., Certificate of Naturalization, Voter's affidavit/ID Card, Philippine Passport/Visa
4. Certificate of Live Birth and/or marriage contract (if applicant is a married female)
5. NBI clearance
6. Valid Certificate of Registration and a Valid Professional License as a Registered Electrical Engineer.
7. Certificate of Experience PRC Form No. 104 (Revised August '95) duly accomplished and certified under oath. This service record shall be reckoned from the date the applicant took oath as an REE (or ASSO EE or ASST EE).



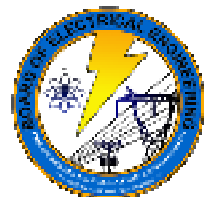


Requirements for Registration as Professional Electrical Engineer

(Rule 14, IRR RA 7920)

8. Technical Report/Thesis/Dissertation Paper
9. Affidavits signed by three licensed professional electrical engineers to the effect that the experience record submitted by the applicant is factual and that the technical paper submitted was actually and solely prepared by the applicant.
10. Brief description of the most significant and outstanding achievement/contribution of the applicant in the field of electrical engineering.

The interview shall be scheduled as often as required throughout the year, and may be held at the head office in Manila or in the PRC Regional offices when the number of applicants for PEE would justify the funds requirement for at least two members of the Board to conduct the interview/oral examination.

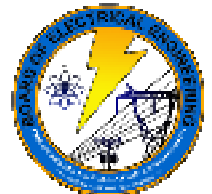




Technical Report

“Technical paper covering an evaluation, an analysis or a critical discussion of an electrical engineering project or subject, on one or several technical aspects such as: design, construction, installation, commissioning, testing, operation, maintenance, repair, research and the like. The technical paper shall be supported by engineering principles and data. Published or unpublished scientific paper or treatise on electrical engineering theories and applications may be considered as complying with the requirement;”

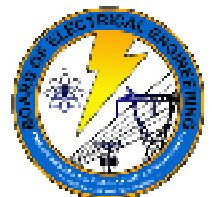
- ❑ Topics can be: post-projects, on-going projects, proposed projects, thesis





Elements of the Technical Report **(Rule 14, IRR RA 7920)**

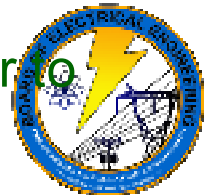
- Title Page
- Letter of Transmittal
- Preface
- Table of Contents
- List of tables, charts, drawings etc.
- Summary
- Body Text
- Conclusions/Recommendations
- Bibliography/References
- Affidavit of sole authorship
- Affidavit of PEE 1
- Affidavit of PEE 2
- Affidavit of PEE 3
- Curriculum Vitae (with ID picture)





STEPS TO FOLLOW WHEN APPLYING FOR PEE EXAMS

1. Submit a proposed title & outline with synopsis for each chapter to the Board of EE for approval as to subject matter, organization, technical content and presentation. If disapproved, the Board shall advise the applicant citing the reasons therefore.
 - PEE applicant shall include an e-mail address in his/her bio-data that comes with the submission of the proposed title
 - PEE applicant will be required to come in person for screening of the proposed topic by at least two members of the Board of EE
 - PEE applicant will be required during the screening to bring the original copy of the Certification from the three PEEs who will execute affidavits vouching the applicant's experience and providing advise during the preparation of the technical engineering report and proof of active involvement in IIEE and/or community and original copy of the Certificate of Employment/Service Record
 - Date and venue for the screening will given in the reply letter to the applicant





Sample of Outline with Synopsis

Chapter 1.0 Introduction

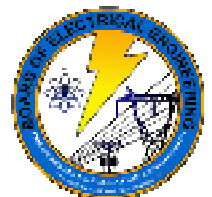
Synopsis:

This section describes the location and description of the propose project. In this part, the objective of the project is defined and will provide brief summary of scope of design.

1.1 Project Description

1.2 Project Objective

1.3 Project Summary





Sample of Outline with Synopsis

Chapter 2.0 Electrical Design Criteria

Synopsis:

As a basis of this design report, applicable requirements of the applicable codes, specifications, regulations, and standards will be described in this section.

Design requirement of over 600V: medium voltage 6.6 kV will be considered in the electrical system of pumps with motors rated 300 hp to 3000 hp.

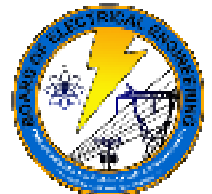
2.1 Basic Design Codes

2.2 Equipment for General Use & Special Systems

2.3 System Frequency, Voltage and Voltage Drops

2.4 System Studies and Design Assumptions

2.5 Environmental Conditions





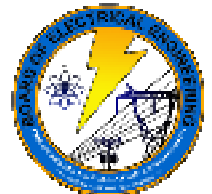
Sample of Outline with Synopsis

Chapter 3.0 Electrical Calculations

Synopsis:

The determination of the proper calculation for the following: transformer loads, primary and secondary (medium voltage 6.6 kV) feeder conductor size of the transformer, main distribution and feeder circuit conductor size, circuit breaker rating, voltage drop, short circuit calculations, capacitor power factor correction calculation, grounding calculation, emergency standby generator rating, etc.

- 3.1 Mains Primary and Secondary (Medium Voltage 6.6kV) Feeder Cable Size Calculation
- 3.2 Medium Voltage Load Calculation
- 3.3 Short Circuit Calculation
- 3.4 Small Power Low Voltage Load Calculation
- 3.5 Voltage Drop Calculation
- 3.6 Capacitor Power Factor Correction Calculation
- 3.7 Grounding Calculation
- 3.8 Emergency Standby Generator

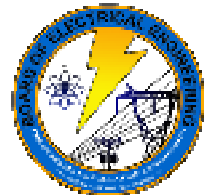




STEPS TO FOLLOW WHEN APPLYING FOR PEE EXAMS

2. After approval of the proposed title and outline by the Board, submit all requirements for processing together with the five (5) copies of the Technical Report. Four (4) which will be retained by the Commission and one (1) by the applicant stamped with **“RECEIVED COPY”**.
 - The applicant will be required to submit the Technical Report within six (6) months from the oral screening
3. Payment of P600.00 for the examination fee.

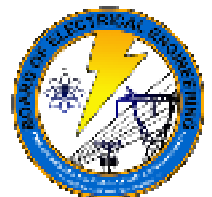
ANY APPLICANT WHO FAILED IN THE ORAL EXAMINATION/INTERVIEW SHALL NOT RE-APPLY AFTER AT LEAST ONE (1) YEAR FROM THE DATE OF NOTICE OF FAILURE. IN THE RE-APPLICATION, RULE 14 SHALL BE OBSERVED!!!





Do's and Don'ts

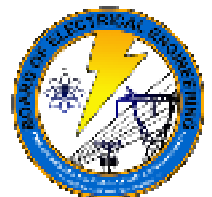
- TITLE OF THE REPORT SHOULD BE IMPRESSIVE OR SHOULD SPEAK FOR ITSELF
 - ▶ Prepare at least three (3) topics
- PROPOSED OUTLINE SHALL INCLUDE SYNOPSIS FOR EACH CHAPTER
- TECHNICAL REPORT SHALL INVOLVE SUBSTANTIAL CALCULATIONS, e.g.,
 - ▶ Load calculations/load schedules/lay-out plans
 - ▶ Transformer size determination
 - ▶ Wire/feeder conductor size determination
 - ▶ Circuit breaker/fuse rating determination
 - ▶ Short circuit calculations
 - ▶ Protection coordination
 - ▶ Insulation coordination
 - ▶ etc.





SAMPLE TITLES

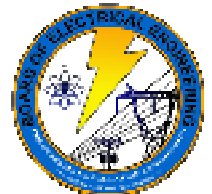
- ❑ Proposed 10 MVA Substation at La Castellana
- ❑ System Fault Analysis of Cemex-Apo Cement Corporation
- ❑ Electrical System Design for Administration Building of Mactan International Airport
- ❑ Electrical System Design of A Furniture Manufacturing Plant





Do's and Don'ts

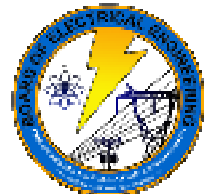
- PURELY NARRATIVE REPORT IS **NOT ACCEPTABLE**
- AVOID UNNECESSARY AND IRRELEVANT DATA INCLUDING FIGURES/CHARTS/TABLES NOT REFERRED TO IN THE DISCUSSIONS
 - ▶ Attach single line diagrams only that will be used in the discussions
 - ▶ Specify references/sources of tables/graphs/charts
- AVOID PLAGIARISM
 - ▶ If an author has written something particularly well, or their own words are for some reason significant, then put their words in quotes and give an appropriate citation
 - ▶ Provide complete references to all works used, and cite these in the document where you use this information, **USE FOOTNOTES, IF NECESSARY**





Do's and Don'ts

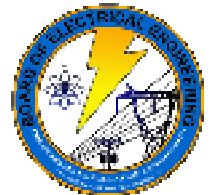
- FOR NUMBERS LESS THAN 10, SPELL IT OUT, UNLESS THEY ARE MEASUREMENTS (AND UNITS, IF ANY, MUST BE SPECIFIED)
- USE A CONSISTENT FORMAT FOR UNITS
 - ▶ do not randomly use “V,” “Volts,” and “volts” in the document
- SPECIFY THE UNITS WHEN NECESSARY AND BE AWARE OF THE CORRECT ABBREVIATION
 - ▶ kW for kilowatt, not KW nor Kw
 - ▶ kV for kilovolts, not KV nor Kv
 - ▶ kVAr for kilovolt-ampere reactive, not KVAR nor kVAR
 - ▶ MVA for megavolt-ampere, not Mva nor mVA nor mVa
 - ▶ GWh for gigawatthour, not GWH nor gWh
 - ▶ MWh for megawatthour, not MWH nor mWh





Do's and Don'ts

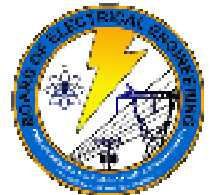
- SUFFICIENT KNOWLEDGE IN PEC 1 & 2 AND SHORT CIRCUIT CALCULATIONS IS REQUIRED
- PROOFREAD YOUR WORK! NOTHING LOOKS LESS PROFESSIONAL THAN A DOCUMENT FILLED WITH SPELLING ERRORS, MISSING WORDS, SENTENCE FRAGMENTS, MISSING FIGURES, ETC.
 - ▶ Make sure of the correct page layout/sequence prior to bookbinding
- STRICTLY COMPLY WITH THE PRESCRIBED FORMAT
- MAKE THE NUMBER OF PAGES OF THE TECHNICAL REPORT THE LEAST AS POSSIBLE (THE BOARD IS NOT IMPRESSED WITH A VERY THICK REPORT)
- TECHNICAL REPORT SHALL BE PRINTED ON **SIZE A4 SUBSTANCE 24 (90 gsm) WHITE BOND PAPER**
 - ▶ Use Verdana Font 12 (except for Tables/Attachments)
 - ▶ Use 1.5 line spacing





Do's and Don'ts

- THE EXAMINEE SHALL SUBMIT FIVE (5) SETS OF THE TECHNICAL REPORT (within six (6) months from approval)
 - ▶ Four (4) sets to be retained by the PRC/BEE
 - ▶ One (1) set to be returned to the applicant stamped as “RECEIVED COPY”
- THE EXAMINEE SHALL ALSO SUBMIT A PDF COPY OF THE COMPLETE TECHNICAL REPORT (INCLUDING ATTACHMENTS SUCH AS GRAPHS, TABLES, DIAGRAMS, ETC.) SAVED IN A USB FLASH DISK
- **USE OF POWERPOINT** PRESENTATION DURING THE ORAL EXAMINATION IS **NOT ALLOWED** EXCEPT WHEN TO SHOW GRAPHS/CHARTS/FIGURES/DIAGRAMS
 - ▶ Examinee shall provide the laptop computer and multimedia projector



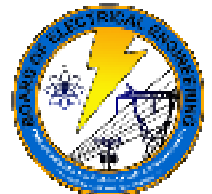


Criteria for Grading

- ❑ **EXPERIENCE (30%)**
 - Number of years of EE practice - 50%
 - In excess of 20 years - 41 – 50%
 - 11 to 20 years - 36 – 40%
 - 5 to 10 years - 30 – 35%
 - Exposure to various fields: - 30%
 - Technical demands of those fields: - 20%

- ❑ **ENGINEERING REPORT (30%)**
 - Compliance to instructions - 10%
 - Technical Content and Discussions - 50%
 - Organization of Presentation - 20%
 - Soundness of Conclusions & Recommendations - 10%
 - Grammar, Spelling, etc. - 10%

- ❑ **INTERVIEW (40%)**
 - Punctuality at appointed time - 10%
 - Grasp of Subject Matter - 40%
 - Accuracy in answering technical questions - 30%
 - Composure and confidence - 10%
 - Verbal facility - 10%



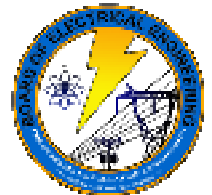
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 - Number of years of EE practice - 50%
 - In excess of 20 years - 41 – 50%
 - 11 to 20 years - 36 – 40%
 - 5 to 10 years - 30 – 35%
 - Exposure to various fields:
 - Technical demands of those fields

- ❑ **ENGINEERING DESIGN**
 - 10%
 - 50%
 - 20%
 - 10%
 - 10%

- ❑ **INTERVIEW (40%)**
 - Punctuality at appointed time - 10%
 - Grasp of Subject Matter - 40%
 - Accuracy in answering technical questions - 30%
 - Composure and confidence - 10%
 - Verbal facility - 10%

Passing Grade = 70%





Q & A

Send your questions/inquiries at these e-mail addresses:

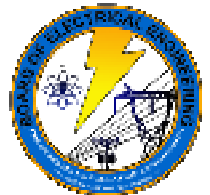
fcleynes@gmail.com

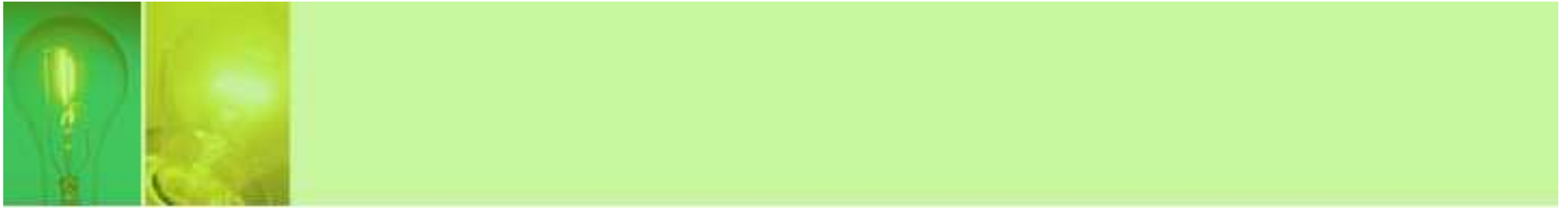
fc.leynes@yahoo.com

jaimenvmendoza@gmail.com

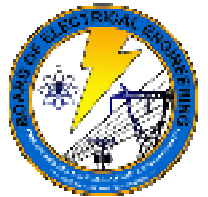
fvm.inc@gmail.com

fvmassociates@yahoo.com.ph





START YOUR INITIAL SCREENING



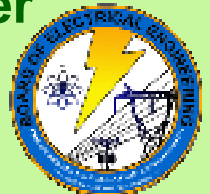
HOW TO BECOME A Professional Electrical Engineer

Board of Electrical Engineering
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FORTUNATO C. LEYNES, MBA, FIIEE
Chairman

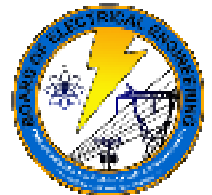
JAIME V. MENDOZA, MTM, SMIIIEE
Member

FRANCIS V. MAPILE, BBM, FIIEE
Member





HYPERLINKS (FORMS)





THIS FORM IS NOT FOR SALE



Republic of the Philippines
Professional Regulation Commission
Manila, Philippines

PRC APP Form No. 004 (Rev Sept 2007)

Paste here your recent PASSPORT SIZE colored picture with complete nametag in white background

PRC Form 101

NAME OF BOARD _____

APPLICATION FOR REGISTRATION WITHOUT EXAMINATION

PERSONAL DATA

LAST NAME		FIRST NAME		MIDDLE NAME	
<input type="checkbox"/> MALE	<input type="checkbox"/> FEMALE	CITIZENSHIP	CIVIL STATUS	DATE OF BIRTH(mm/dd/yy)	
			<input type="checkbox"/> SINGLE <input type="checkbox"/> WIDOWED	<input type="checkbox"/> MARRIED <input type="checkbox"/> SEPARATED	
PERMANENT MAILING ADDRESS					ZIP CODE
PLACE OF BIRTH			TELEPHONE /CELL PHONE NO		
SPOUSE'S NAME & CITIZENSHIP		FATHER'S NAME & CITIZENSHIP		MOTHER'S NAME & CITIZENSHIP	

Have you ever been convicted in a final judgment before any court , military tribunal or administrative body? YES NO (if yes, please attach a copy of the decision)

EDUCATIONAL DATA

	Name of School	Location	Course/Degree Completed	FROM (mm/dd/yy)	TO (mm/dd/yy)
Vocational					
College					
Graduate/Post Graduate					

PREVIOUS LICENSURE EXAMINATION/S TAKEN

NAME OF EXAMINATION	DATE TAKEN	VERIFIED BY		PRC ID YEAR EXPIRED
		Record Section	Registration Division	

EMPLOYMENT RECORD

OFFICE	POSITION HELD	SPECIFIC WORK/FUNCTION	FROM (mm/dd/yy)	TO (mm/dd/yy)

ACTION TAKEN Remarks: _____ Processed by: _____ Date: _____	ACTION TAKEN BY THE BOARD CHAIRMAN _____ MEMBER _____ MEMBER _____ MEMBER _____
ACTION TAKEN BY CASHIER Amount: _____ Date: _____ O.R. No: _____ Issued by: _____	

I HEREBY CERTIFY that the information and/or statements in this application including the documents submitted in support thereof are all true and correct to my own knowledge, and that I am fully aware that any false information or statement in this application in this attachments shall render me liable for criminal prosecution and /or administrative sanction.

Applicant's Signature _____
Date Accomplished _____

THUMBMARK

Subscribed and sworn to before this _____ day of _____, 20____ at _____, Affiant applicant exhibited to me his Community Tax Certificate No. _____ issued at _____ on _____.

PRC ADMINISTERING OFFICER

METERED DOCUMENTARY STAMP

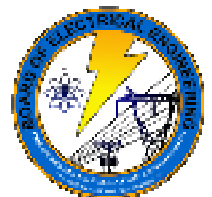
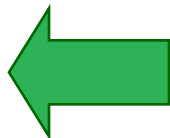
O. R. No. _____
Amount Paid: _____
Date Paid: _____

REGISTRATION WITHOUT EXAMINATION FOLLOW-UP SLIP

NAME: _____ PROFESSION: _____
DATE OF FILING: _____

Please verify approval of your application and resolution number at the Office of the Asst. Secretary @ (02) 735-1533 after 3 months.

Application Processor



PRC Form 203

NOT FOR SALE
REPRODUCTION NOT ALLOWED

AA 1406177

PROFESSION/BOARD OF

Professional Regulation Commission
PERMANENT EXAMINATION AND REGISTRATION RECORD CARD
(To be printed in BOLD letters personally by applicant)

PRC Form No. 03 (Rev. 03/03/2004)

Deficiency Code: _____
Lifting Reference: _____
Entered by: _____

Paste here your recent PASSPORT SIZE colored picture with complete name tag in plain white background

IMPOSTOR WILL BE PROSECUTED

I hereby certify that all information that I have written herein are true and correct of my own knowledge and that I am fully aware that any false information renders me liable for criminal prosecution.

(Signature)

(Right Thumbmark)

LAST NAME FIRST NAME MIDDLE NAME MIDDLE INITIAL

Residence / Complete Mailing Address

Date of Birth (mm/dd/yyyy) Place of Birth (City / Town / Province)

Citizenship Single Widow/er Male Married Separated Female Spouse's Name and Citizenship

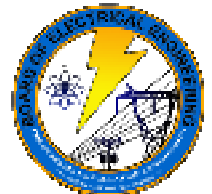
Father's Name and Citizenship Mother's Name and Citizenship

School Attended / Location Degree / Course Completed Date Graduated(mm/yyyy)

EXAMINATION RECORD (To be filled up by PRC)					REMARKS / SUBJECTS TO BE TAKEN (To be filled up by PRC)
Date Taken	Rating	P/F/Cond.	Exam. No.	Recorded by (Signature)	
1.					Subj. 1. _____
2.					Subj. 2. _____
3.					Subj. 3. _____
4.					Recorded by: _____ (Printed Name and Signature)

Subscribed and sworn to before me this _____ day of _____ 20____ at _____ Affiant applicant exhibited to me his Community Tax Certificate No. _____ issued at _____ on _____.

_____ PRC Administering Officer





PRC Form 104

PRC Form No. 104
(Revised August 1995)

Page 1 of _____
Date _____

Republic of the Philippines
PROFESSIONAL REGULATION COMMISSION
Manila

CERTIFICATE OF EXPERIENCE

To the BOARD OF ELECTRICAL ENGINEERING:

Herewith are my statements as regards my electrical engineering experience:

Company/Office: _____
Address/Location: _____
Direct Supervisor: _____
PRC License No: _____ Date: _____ Valid Until: _____
(PEE/REE)

From	To	Position Held	Nature of Work/Responsibility

(Use additional sheets as required)

Applicant:
Name _____ Signature _____
PRC License No. _____ Date _____ Valid Until _____

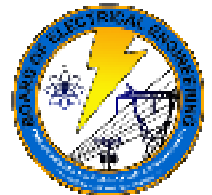
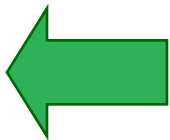
I HEREBY CERTIFY THAT:

- I am/was the direct supervisor of the applicant from _____ to _____.
- The statements above made by the applicant are true and factual.

Certifying Engineer / Official: Name _____
Signature: _____
Date: _____

WARNING: All statements are subject to verification. Any false statement or misrepresentation is a ground for disqualification and criminal/administrative prosecution.

Note: Applicants shall fill out separate forms for each certifying supervisor corresponding to the dates involved.





Curriculum Vitae

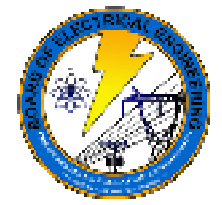
COMPREHENSIVE BIO-DATA

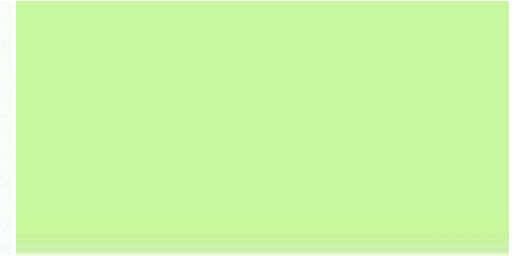
I. PERSONAL

NAME	_____	
AGE	_____	
SEX	_____	
NATIONALITY	_____	
PROFESSION	_____	
HOME ADDRESS	_____	
PHONE / FAX	_____	
E-MAIL:	_____	
DESIGNATION	_____	
COMPANY	_____	
OFFICE ADDRESS	_____	
PHONE / FAX	_____	
PROVINCE	_____	
HEIGHT	_____	
WEIGHT	_____	
SPOUSE	_____	
CHILDREN	_____	

II. ENGINEERING DISCIPLINE / EDUCATIONAL ATTAINMENT

DEGREE COMPLETED	_____
WHEN	_____
WHERE	_____
SPECIALIZATION	_____
POST-GRADUATE	_____
WHEN	_____
WHERE	_____
MASTERAL DEGREE	_____
WHEN	_____
WHERE	_____





III. ENGINEERING PRACTICE

LICENSURE EXAM

DATE TAKEN

REGISTRATION NO. _____

DATE ISSUED _____

IV. PROFESSIONAL EXPERIENCE

YEAR	POSITION	RESPONSIBILITY	PROG./PROJ./EMPLOYER

Professional Responsibilities Handled:

Subjects of Professional Technical Papers Written:

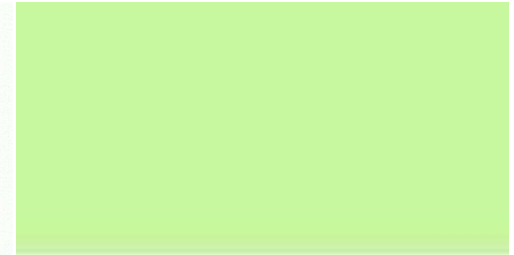
V. SIGNIFICANT ENGINEERING WORK

YEAR	RESPONSIBILITY	PROG./PROJ.	BENEFICIARY / CLIENTELE / EMPLOYER

Significant Engineering Responsibilities Handled:

Significant Engineering Works Performed:





VII. CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

PROGRAM DESCRIPTION	NAME OF PROVIDER	YEAR

VIII. SOCIAL AND CIVIC AFFILIATIONS

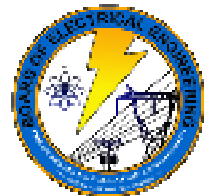
DESIGNATION	ASSOCIATION	YEAR

IX. AWARDS AND RECOGNITION

AWARD / DESCRIPTION	NAME OF GRANTOR	YEAR

CREENTIALS - SUMMARY SHEET

Name of Professional	(Family Name, Given Name, Middle Name)
Technical Discipline	
Birthdate	(Month-Date-Year)
Academic Background	
Name of Institution	
Supplemental Background	
Name of Institution	
Supplemental Background	
Name of Institution	
Supplemental Background	
Name of Institution	
Supplemental Background	
Name of Institution	





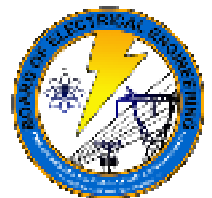
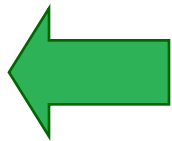
WORK EXPERIENCE - SUMMARY SHEET

Engineering Qualification:	Specialization:	PRC License: License No. Date Issued:
Age	Clientele or Beneficiaries & Project Classification	Specific Engineering Program or Project, Responsibilities & Accountabilities

The undersigned certifies that the foregoing information are true and correct.

Signature Above Printed Name
Profession _____

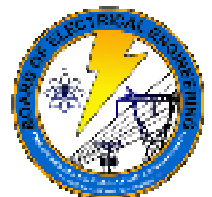
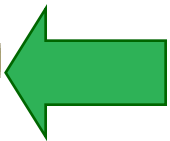
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Issued: _____
Expiry: _____
Place of Issue: _____



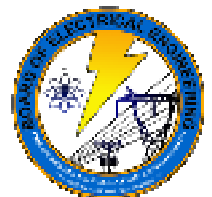
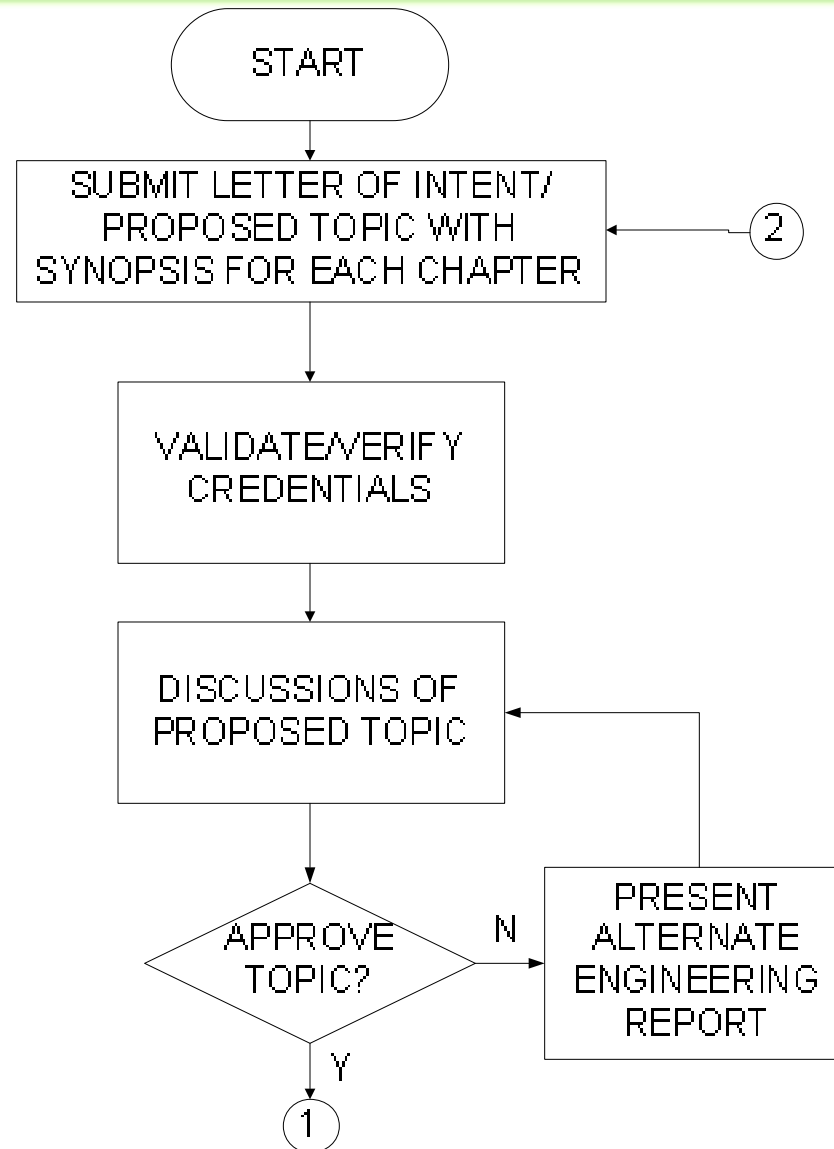


Format for the Technical Report

- Title Page
- Letter of Transmittal
- Preface
- Table of Contents
- List of tables, charts, drawings etc.
- Summary
- Body Text
- Conclusions/Recommendations
- Bibliography/References
- Affidavit of sole authorship
- Affidavit of PEE 1
- Affidavit of PEE 2
- Affidavit of PEE 3
- Curriculum Vitae (with ID picture)



APPLICATION FLOWCHART



APPLICATION FLOWCHART

