

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

FIFTEENTH CONGRESS
First Regular Session

HOUSE BILL NO. 4452

Introduced by Hon. Neptali M. Gonzales II

EXPLANATORY NOTE

Advances in the world's major industries have seen the rise in technologies such as robotization and automation. These were adopted by major industrial concerns to meet market demands, and improve productivity as well as efficiency. The accelerated pace that accompanied this technological development came to mean the introduction of improved instruments, fast and efficient monitoring and control system, and sophisticated data acquisition systems that are capable of integrating and controlling the various loops in production process. It also meant the evolution of the branch of engineering now known as instrument and control engineering.

Today, with the continued innovation in technology and the development of industrial standards of excellence (e.g. ISO ratings), instrument and control engineers and technicians are called upon to innovate and improve their level of competence and professional integrity. Their stewardship of a crucial in the world's industrial process require nothing less. Equally so, the State must now initiate the enactment of a law that will professionalize the practice and control of instrumentation and control engineering in the country. This will, in part, guarantee the compliance of practitioners in this engineering discipline with the demands of competitive and highly innovative profession.

This proposed bill seeks to address this need by:

1. Creating the Board Examiners for Instrumentation and Control Engineers;
2. Mandating the examination and subsequent registration of applicants intending to practice instrumentation and control engineering; and
3. Establishing regulations that will govern the practice of the profession.

The country's drive toward industrialization, modernization, competitiveness, and our integration into the global economic structure will come to mean the readiness of both public and private sectors to keep pace with social and economic forces. Toward this end, providing the necessary infrastructure as well as professional regulations to those who play a major part in this drive is necessary.

In the light of the foregoing, early passage of this bill is earnestly sought.



NEPTALI M. GONZALES II

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AN ACT
REGULATING THE PRACTICE OF INSTRUMENTATION
AND CONTROL ENGINEERING IN THE PHILIPPINES
AND FOR OTHER PURPOSES

Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

ARTICLE I
GENERAL PROVISIONS

SECTION 1. TITLE. - This Act shall be known as the "Philippine Instrumentation and Control Engineering Law of 2011".

SECTION 2. STATEMENT OF POLICY. - The State recognizes the role of Instrumentation and Control Engineers in nation-building and development. The State likewise recognizes the need to regulate the practice of the profession with the end in view of developing competent and well-rounded Instrumentation and Control Engineers whose standards of professional service shall be excellent, qualitative and globally competitive.

SECTION 3. DEFINITION OF TERMS. - As used in this Act, the following terms shall mean:

- (a) **Instrumentation** - It is the collection of instruments or their application for the purpose of observation, measurement or control.
- (b) **Instrumentation and Control Engineering** - The practice of Instrumentation and Control Engineering shall mean the rendering or offering of professional Instrumentation and Control Engineering service for a fee, salary or other reward of compensation, paid through him or

through another person, or even such rewards or compensation. The term shall be synonymous with "rendering Instrumentation and Control Engineering service".

SECTION 4. SCOPE OF PRACTICE. - The practice of Instrumentation and Control Engineering within the context and intent of this Act shall embrace the following:

- (a) Design of Front-End Engineering which includes Process and Instrument Diagram (P & ID); Detailed Engineering which includes the making of Instrument Index, Specifications/Data Sheets, Control Diagrams, Logic Diagrams, Ladder Diagrams, Isometric Drawings, Termination Drawings, Loop Drawings, Instrument/Junction Box Location Drawings, Cable Tray Support and Installation Details, Hook-up Drawings, Instrument Support Fabrication and Installation Details, and Control Panel Layout; Special Calculations which include Orifice Sizing, Control Valve Sizing, and Relief Valve Sizing; System Automation which includes Programmable Logic Controller (PLC), Distributed Control System (DCS), Supervisory Control and Data Acquisition (SCADA), Telemetry, Pneumatics, and Hydraulics.
- (b) Project Implementation;
- (c) Start-up Commissioning;
- (d) Maintenance, Calibration, Trouble-Shooting and Repair;
- (e) Consultation, Investigation, Evaluation and System Integration;
- (f) Teaching of Instrumentation and Control Engineering Subjects;
- (g) Sale and Distribution of Instrumentation and Control Equipment Systems; and
- (h) Professional research and laboratory work supporting the activities listed in Subsection (a) hereof.

ARTICLE II

BOARD OF INSTRUMENTATION AND CONTROL ENGINEERING

SECTION 5. CREATION AND COMPOSITION OF THE BOARD. -

There is hereby created a Board of Instrumentation and Control Engineering, hereinafter referred to as the Board, composed of a Chairman and two (2) Members who shall be appointed by the President of the Philippines from the recommendees of the Professional Regulation Commission, hereafter called the Commission, from the nominees chosen and ranked by the integrated and accredited association of Instrumentation and Control Engineers.

SECTION 6. POWERS AND FUNCTIONS OF THE BOARD. - The Board shall be vested with the following powers and functions:

- (a) Promulgate, administer and enforce rules and regulations necessary for carrying out the provisions of this Act, in accordance with the charter of the Commission;
- (b) Supervise and regulate the registration, licensure and practice of Instrumentation and Control Engineering in the Philippines;
- (c) Administer oaths in connection with the administration of this Act;
- (d) Adopt an official seal of the Board;
- (e) Maintain a roster of Instrumentation and Control Engineers indicating therein the basic information about the registered professionals;
- (f) Issue, reinstate, suspend or revoke the Certificate of Registration and/or Professional License for the practice of Instrumentation and Control Engineering;
- (g) Monitor the conditions affecting the practice of Instrumentation and Control Engineering and adopt such measures as may be deemed proper for the enhancement of the profession and/or maintenance of high professional, ethical and technical standards;
- (h) Ensure, in coordination with the Commission on Higher Education (CHED) that all educational institutions offering Instrumentation and Control Engineering education comply with the policies, standards and requirements of the course prescribed by CHED in the areas of curriculum, faculty, library and facilities;

- (i) Prescribe and/or adopt a Code of Ethics for the practice of Instrumentation and Control Engineering;
- (j) Hear or investigate any violation of this Act, its implementing rules and regulations and the Code of Ethics for Instrumentation and Control engineers as shall come to the knowledge of the Board, and for this purpose, to issue *subpoena* and *subpoena duces tecum* to secure the appearance of witnesses and the production of documents in connection therewith;
- (k) Prescribe guidelines and criteria in the Continuing Professional Education (CPE) program for Instrumentation and Control Engineers;
- (l) Adopt a program for the full computerization of the licensure examination;
- (m) Prepare, adopt and issue the syllabi of the subjects for examinations by determining and preparing the questions which shall strictly be within the scope of the syllabus of the subject for examination;
- (n) Approve registration without examination, subject to review by the Commission;
- (o) Issue special permits to persons admitted to the practice of Instrumentation and Control Engineering for a specific duration of time, and certificates of recognition to Instrumentation and Control Engineers for advance studies, researches, highly specialized trainings, and accomplishments that contribute to the enrichment of the profession;
- (p) Submit an annual report after the close of each fiscal year on the proceedings and accomplishments of the Board during the year as well as any recommendation of the same to the Commission with the end in view of upgrading and improving the conditions affecting the practice of Instrumentation and Control Engineering in the Philippines; and
- (q) Discharge such other powers and functions as the Board may deem necessary for the practice of the profession and the upgrading, enhancement, development and growth of Instrumentation and Control Engineering in the Philippines.

The policies, resolutions, rules and regulations, orders or decisions issued or promulgated by the Board shall be subject to the review and approval of the Commission:

Provided, however, That the decisions, resolutions or orders rendered by the Board which are not interlocutory in an administrative case, shall only be subject to review on appeal.

SECTION 7. QUALIFICATIONS OF THE CHAIRMAN AND MEMBERS OF THE BOARD. - The Chairman and Members of the Board shall, at the time of appointment, possess the following qualifications:

- (a) Must be a citizen and resident of the Philippines;
- (b) Must be at least thirty-five (35) years of age;
- (c) Must be of proven integrity and with high moral values as evidenced by his past professional conduct;
- (d) Must be a graduate of Instrumentation and Control Engineering;
- (e) Must be a duly registered Instrumentation and Control Engineer under this Act with a valid Certificate of Registration and Professional License and have been in the active practice of the profession for a period of not less than ten (10) years either in the government service or the private sector;
- (f) Must be a member in good standing of the integrated and accredited association of Instrumentation and Control Engineers;
- (g) Must not have any pecuniary interest, directly or indirectly in any school, academy, college, university or institution conferring an academic degree necessary for admission to the practice of Instrumentation and Control where review classes in preparation for the licensure examination are being offered or conducted, nor shall be a member of the faculty or of the administration thereof at the time of his appointment to the Board; and
- (h) Must not have been convicted of any offense involving moral turpitude.

SECTION 8. TERM OF OFFICE. - The Chairman and Members of the Board shall hold for three (3) years or until their successors shall have been appointed and duly qualified: *Provided,* That Members of the first appointed Board shall hold office for the following terms: one (1) Member as Chairman for three (3) years, one (1) Member for two (2) years and one (1) Member for one (1) year.

The Chairman and Members of the first Board shall automatically be registered as Instrumentation and Control Engineers and issued with Certificate of Registration and Professional License.

The Chairman or Member of the Board may be reappointed for another term but in no case shall he serve continuously for more than six (6) years. They shall take the proper oath of office prior to assumption of duty.

SECTION 9. COMPENSATION AND ALLOWANCES OF THE BOARD. -

The Chairman and Members of the Board shall receive compensation and allowances comparable to that being received by the Chairman and Members of the existing regulatory boards under the Commission as provided for in the General Appropriations Act.

SECTION 10. VACANCY AND REMOVAL OF BOARD MEMBERS. - Any vacancy in the Board shall be filled up for the unexpired portion of the term only.

The Chairman or any Member of the Board may be suspended or removed by the President of the Philippines upon recommendation of the Commission for neglect of duty, incompetence, malpractice, commission or tolerance of irregularities in any examination given by the Board, unprofessional or unethical conduct, after due notice and hearing where his right to be heard, to defend himself and to be assisted by counsel shall be respected in a proper administrative investigation: *Provided*, That during the process of investigation, the Commission shall have the power to suspend such Member under investigation and shall appoint a temporary Member in his place. The Commission's decision may be appealed within fifteen (15) days to the President of the Philippines whose decision shall be final and executory.

SECTION 11. SUPERVISION OF THE BOARD, CUSTODIAN OF ITS RECORDS, SECRETARIAT AND SUPPORT SERVICES. - The Board shall be under the general supervision and administrative control of the Commission. All records of the Board, including applications for examination, examination papers and results, minutes of deliberation, administrative cases, and other investigated cases involving Instrumentation and Control Engineers shall be kept by the Commission.

The Commission shall designate the Secretary of the Board and shall provide the secretariat and other support services to implement the provisions of this Act.

ARTICLE III

EXAMINATION AND REGISTRATION

SECTION 12. LICENSURE EXAMINATIONS. - Every applicant seeking to be registered and licensed as Instrumentation and Control Engineers or Instrumentation and Control Technicians shall undergo and pass a written technical examination to be given by the Board at least once a year in such places and dates as the Commission may designate.

SECTION 13. QUALIFICATIONS FOR EXAMINATION. - Any person applying for admission to the licensure examination for Instrumentation and Control Engineering or Instrumentation and Control Technician shall establish to the satisfaction of the Board that:

- (a) He is a citizen of the Philippines;
- (b) He is of good reputation and unsullied moral character;
- (c) He has not been finally convicted by a competent court of an offense involving moral turpitude;
- (d) For Instrumentation and Control Engineering, he is a graduate of a prescribed course in Instrumentation and Control Engineering from any school, academy, institute, college or university recognized and accredited by the Philippine Government or the state wherein it is established:
Provided, That within three (3) years after the approval of this Act, certified holders of Associate in Instrumentation and Control Engineering, Instrumentation Technology, or any allied engineering courses, with at least five (5) years of active practice in instrumentation and control or allied fields, shall be qualified to take the licensure examination for Instrumentation and Control Engineering;
- (e) For Instrumentation and Control Technician, he must possess any of the following qualifications:
 - (1) He has completed at least three (3) years of a five-course in Bachelor of Science in Instrumentation and Control Engineering or a three-year course in Instrumentation and Control Technology from an engineering school, academy, institute, college or university recognized and accredited by the Philippine Government or the

- state wherein it is established and, in addition, has at least one (1) year of practice in maintenance, calibration, etc.; or
- (2) He has graduated from a two-year vocational course on electronics and, in addition, has at least two (2) years of apprenticeship in instrumentation; or
 - (3) He has completed a one-year vocational course on electronics or industrial electricity and, in addition, has at least three (3) years of apprenticeship in Instrumentation; or
 - (4) He has completed a four-year high school education or its equivalent and, in addition, has at least five (5) years of apprenticeship in Instrumentation.

SECTION 14. SCOPE OF EXAMINATION. - The Board shall prescribe the subjects for the licensure examinations for Instrumentation and Control Engineering as well as that for the Instrumentation and Control Technician.

SECTION 15. RELEASE OF THE RESULTS OF EXAMINATION. - The Board and the Commission shall correct and rate the licensure examination papers and shall release the examination results within fifteen (15) days after the said examination.

SECTION 16. RATINGS IN THE EXAMINATION. - An examinee shall be deemed to have successfully passed the examination if he has obtained an average of at least seventy percent (70%) : *Provided*, That in no case should the rating in any subject be less than fifty percent (50%) : *Provided further*, That an applicant who fails to obtain a passing average but who obtained at least seventy percent (70%) in each of at least one-half of the total subjects given in the examination, may be permitted to take, any number of times, a removal examination on the subject in which he obtained a grade below seventy percent (70%) , until he has obtained a passing average on all subjects.

SECTION 17. ISSUANCE OF THE CERTIFICATE OF REGISTRATION AND PROFESSIONAL LICENSE. - A Certificate of Registration shall be issued to examinees who passed the licensure examination for Instrumentation and Control Engineering or Technician subject to payment of fees prescribed by the Commission. The

Certificate of Registration shall bear the signature of the Chairman of the Commission and the Members of the Board, stamped with the official seal, indicating that the person named therein is entitled to practice the profession with all the privileges appurtenant thereto.

This certificate shall remain in full force and effect until withdrawn, suspended or revoked in accordance with this Act.

A Professional License, duly signed by the Chairman of the Commission, bearing the registration number, date of issuance, expiry date, shall likewise be issued to every registrant who has paid the annual registration. This license will serve as evidence that the licensee can lawfully practice his profession until the expiration of its validity.

SECTION 18. REGISTRATION WITHOUT EXAMINATION. – The first Board shall, within a period of two (2) years from the effectivity of this Act, issue a Certificate of Registration and Professional License without the necessity of undergoing and passing the licensure examination for Instrumentation and Control Engineering, to any applicant who with his application for registration, shall present evidence or proof satisfactory to the Board that:

- (a) He is a graduate of Instrumentation and Control Engineering;
- (b) He is in the active practice of the profession for at least ten (10) years:
Provided, That if his active practice of the profession is only eight (8) years, he must have passed the qualifying examination on Instrumentation Engineering conducted by the integrated and accredited association of Instrumentation and Control Engineers;
- (c) He is a person of good moral character and can be trusted to practice Instrumentation and Control Engineering as defined in this Act; and
- (d) For Instrumentation and Control Technicians, he must possess any of the following:

Qualifications:

- (1) He has completed at least three (3) years of a five-year course in a Bachelor of Science in Instrumentation and Control Engineering or a three-year course in Instrumentation and Control Technology from an engineering school, academy, institute, college and active practice of two (2) years and he or she has an active practice of

Instrumentation and Control for two (2) years or he or she must have passed the qualifying examination on Instrumentation and Control by the integrated and accredited association of Instrumentation and Control Engineers.

- (2) He has graduated from a two-year vocational course on allied technologies and, in addition, has at least (2) years of practice in Instrumentation;
- (3) He has completed a one-year vocational course on electronics or industrial electricity and, in addition, has at least four (4) years practice in Instrumentation; or
- (4) He has completed a four-year high school education or its equivalent and, in addition, has at least five (5) years practice in Instrumentation.
- (5) He is a member in good standing of the Integrated and accredited association of Instrumentation and Control Engineer.

SECTION 19. REFUSAL TO REGISTER. - The Board shall refuse to issue the Certificate of Registration and/or Professional License to any person who has been convicted by a court of competent jurisdiction of any crime involving moral turpitude, or has been found guilty of immoral or dishonorable conduct after due investigation by the Board, or has been declared to be of unsound mind. The reason for the refusal shall be set forth in writing and shall be incorporated with the records of the Board.

SECTION 20. REVOCATION OR SUSPENSION OF THE CERTIFICATE OF REGISTRATION AND PROFESSIONAL LICENSE. - The Board may, after giving proper notice and hearing to the party concerned, revoke the practitioner's Certificate of Registration and cancel his Professional License, thereby suspending him from the practice of the profession for any unprofessional or unethical conduct, malpractice, or violation of any of the provisions of this Act, its rules and regulations, the Code of Ethics for Instrumentation and Control Engineers, or upon conviction of any crime.

SECTION 21. REINSTATEMENT, REISSUANCE OR REPLACEMENT OF CERTIFICATE OF REGISTRATION AND PROFESSIONAL LICENSE. - The Board may, upon application and for reasons deemed proper and sufficient, reinstate any revoked

Certificate of Registration or reissue any suspended Professional License, and in so doing, may, in its discretion, exempt the applicant from taking another examination.

A new Certificate of Registration or Professional License to replace the lost, destroyed or mutilated ones may be issued subject to the rules implemented by the Board.

SECTION 22. RENEWAL OF PROFESSIONAL LICENSE. - The Professional License shall be renewed every three (3) years upon satisfying the requirements imposed by the Board, such as attendance in Continuing Professional Education (CPE) program and payment of the corresponding fees as may be prescribed by the Board in accordance with the schedule of fees fixed by the Commission.

SECTION 23. ROSTER OF INSTRUMENTATION AND CONTROL ENGINEERS AND TECHNICIANS. - The Board shall keep a roster of all duly registered and licensed Instrumentation and Control Engineers and Technicians, indicating their names, registration numbers, places of work, and other pertinent data. The Board shall regularly update such roster and make it available to all interested parties.

SECTION 24. ISSUANCE OF TEMPORARY OR SPECIAL PERMITS. - Without prejudice to the existing laws on the practice of professions by foreigners in the Philippines, the following may be issued temporary or special permits to practice Instrumentation and Control Engineering in the Philippines:

- (a) Foreign registered and/or licensed Instrumentation and Control Engineers recognized as experts in their specific fields, called in by the Philippine Government for Consultation or for specific design, installation or project; and
- (b) Foreign registered and/or licensed Instrumentation and Control Engineers who have distinguished themselves in their respective fields of specialization and who are either directly hired or employed as exchange professors or lecturers on Instrumentation and Control Engineering subjects by Philippine schools, colleges, institutes or universities.

Provided, however, That their practice of the profession shall be limited to the particular work for which they are commissioned: *Provided, further,* that the said temporary or special permits shall be valid only for one (1) year subject to renewal every year.

ARTICLE IV

PRACTICE OF INSTRUMENTATION AND CONTROL ENGINEERING

SECTION 25. PROHIBITIONS AND LIMITATIONS IN THE PRACTICE OF INSTRUMENTATION AND CONTROL ENGINEERING. - No person shall offer himself in the Philippines as, or use the title "Instrumentation and Control Engineer" or "Instrumentation and Control Technician", or use any word, letter figure, or sign whatsoever, tending to convey the impression that he is an Instrumentation and Control Engineer or Instrumentation and Control Technician, or advertise that he is qualified to perform the work of such, without holding a valid Certificate of Registration and valid Professional License in accordance with this Act, except as provided under Section 24 thereof.

SECTION 26. PROFESSIONAL OATH. - All successful candidates in the examination or registration shall be required to take a professional oath before any member of the Board or any person duly authorized by the Commission, prior to the practice of the profession.

SECTION 27. SEAL OF REGISTERED INSTRUMENTATION AND CONTROL ENGINEERS. - All registered and licensed Instrumentation and Control Engineers shall obtain and use a seal of a design prescribed by the Board bearing the registrant's name, registration number and the legend *Registered Instrumentation and Control Engineer*. Plans, specifications, reports and other professional documents prepared by and/or executed under the supervision of, and issued by the registrant shall be stamped on every sheet/page with said seal when filed with Government agencies or institutions or when used professionally. It shall be unlawful for any one to stamp any document with said seal after the certificate of the registrant named therein has been suspended or revoked.

SECTION 28. CODE OF ETHICS. - The Board shall adopt the Code of Ethics for Instrumentation and Control Engineering which shall be promulgated by the integrated and accredited association of Instrumentation and Control Engineers.

SECTION 29. CONTINUING PROFESSIONAL EDUCATION (CPE)

PROGRAM. - All registered Instrumentation and Control Engineers and Technicians shall comply with the pertinent rules and regulations already prescribed and/or as may be prescribed and promulgated by the Commission with respect to the Continuing Professional Education (CPE) Program.

SECTION 30. INTEGRATION OF INSTRUMENTATION AND CONTROL

ENGINEERS. - All Instrumentation and Control Engineers and Technicians shall be integrated into one (1) national organization, which shall be recognized by the Board as the one and only integrated and accredited national organization of Instrumentation and Control Engineers and Technicians.

All Instrumentation and Control Engineers and Technicians duly registered with the Board shall automatically become a member of the integrated and accredited association of Instrumentation and Control Engineers and Technicians, and shall receive the benefits and privileges appurtenant thereto upon payment of the required fees and dues. Membership in the said integrated and accredited association shall not be a bar to membership in other associations of Instrumentation and Control Engineers and Technicians.

SECTION 31. FOREIGN RECIPROCITY. - No foreign Instrumentation and

Control Engineers shall be admitted to the examination or be given a Certificate of Registration or be entitled to any of the privileges under this Act unless the country of which he is a subject or citizen specifically permits Filipino Instrumentation and Control Engineers to practice within its territorial limits on the same basis as the subjects or citizens of such foreign state or country.

ARTICLE V

MISCELLANEOUS PROVISIONS

SECTION 32. FUNDING PROVISIONS. - Such sums as may be necessary to

carry out the provisions of this Act shall be included in the General Appropriations Act of the year following its enactment into law and thereafter.

SECTION 33. ENFORCEMENT OF THE LAW. - Any law enforcement agency, upon its initiative or call/request of the Board and/or Commission, shall render assistance in enforcing this Act, including its rules and regulations, by apprehending the violators thereof and charging them in accordance with law and the rules of Court.

SECTION 34. IMPLEMENTING RULES AND REGULATIONS. - Subject to the approval of the Commission, the Board shall adopt and promulgate such rules and regulations, including the Code of Ethics for Instrumentation and Control Engineers, to carry out the provisions of this Act, which shall be effective after thirty (30) days following their publication in the Official Gazette or in a major daily newspaper of general circulation.

SECTION 35. PENAL PROVISIONS. - Any person who shall violate any of the provisions of this Act or any of its implementing rules and regulations, upon conviction, shall be punished by a fine of not less than Ten Thousand Pesos (PhP10,000.00) nor more than Fifty Thousand Pesos (PhP 50,000.00) or by imprisonment of not less than six (6) months nor more than five (5) years, or both such fine and imprisonment, at the discretion of the court.

SECTION 36. SEPARABILITY CLAUSE. - If any section or provision of this Act shall be declared invalid or unconstitutional, such shall not invalidate any other section or provision of this Act.

SECTION 37. REPEALING CLAUSE. - All laws, decrees, executive orders, rules and regulations or parts thereof which are in conflict with the provisions of this Act are hereby repealed or modified accordingly.

SECTION 38. EFFECTIVITY. - This Act shall take effect fifteen (15) days following its full publication in the Official Gazette or two (2) major daily newspaper of general circulation.

Approved,