



Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

TWENTIETH CONGRESS
First Regular Session

HOUSE BILL NO. 4833

Introduced by Hon. Jonathan Keith T. Flores

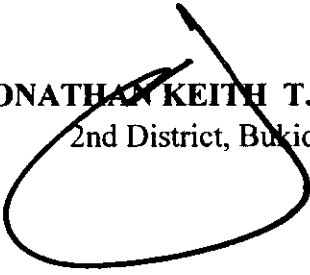
EXPLANATORY NOTE

This proposed measure seeks to establish a comprehensive regulatory framework for computer engineers, patterned after existing laws governing other engineering fields. Precedents include Republic Act No. 9292, otherwise known as the Electronics Engineering Law of the Philippines, and Republic Act No. 7920, or the New Electrical Engineering Law, which provide for licensure examinations, creation of regulatory boards, codes of ethics, and other enforcement mechanisms. The proposed bill would likewise create a Board of Computer Engineering under the Professional Regulation Commission (PRC), tasked with administering licensure examinations, issuing certificates of registration and professional identification cards, and enforcing a code of ethics and standards of professional practice. The scope of the licensure examination would cover fundamental and specialized knowledge in areas such as engineering mathematics, and computer systems design, ensuring that only duly licensed and competent practitioners are authorized to engage in the practice.

Aside from equipping Filipino computer engineers with the necessary skills and competencies to meet the demands of national development and global competitiveness, regulating the computer engineering profession would establish accountability among practitioners, and promote professionalism and ethical practice. Furthermore, it supports the long-standing advocacy of the Institute of Computer Engineers of the Philippines (ICpEP), which has consistently called for recognition and licensure for computer engineers.

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

JONATHAN KEITH T. FLORES
2nd District, Bukidnon





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AN ACT
PROVIDING FOR A MORE RESPONSIVE AND COMPREHENSIVE REGULATION FOR THE
REGISTRATION, LICENSING AND PRACTICE OF PROFESSIONAL COMPUTER ENGINEERS,
REGISTERED COMPUTER ENGINEERS, COMPUTER ENGINEERING TECHNOLOGISTS,
AND COMPUTER TECHNICIANS

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

ARTICLE I

TITLE AND DEFINITION OF TERMS

SECTION 1. *Short Title.* This Act shall be known as the "Computer Engineering Act."

SECTION 2. *Definition of Terms.* As used in this Act, the following terms shall mean:

- (a) Registered or Certified Computer Engineer - a person who is qualified to hold himself/herself out as a duly certified Registered Computer Engineer under this Law and to affix to his/her name the letters "RCpE";
- (b) Professional Computer Engineer - a person who is qualified to hold himself/herself out as a duly certified Professional Computer Engineer under this By-Laws and to affix to his/her name the letters "PCpE";
- (c) Registered Computer Engineering Technologist — a person who is qualified to hold himself/herself out as a duly certified Computer Technologist under this By-Laws and to affix to his/her name the letters "CpET";
- (d) Registered Computer Technician - a person who is qualified to hold himself/herself out as a duly certified Computer Technician under this By-Laws and to affix to his/her name the letters "CpTn";
- (e) Computer - any of a variety of electronic devices that is capable of accepting data, programs and/or instructions, executing the programs and/or instructions to process the data and presenting the results;
- (f) Information and Communications Technology - the acquisition, production, transformation, storage and transmission/reception of data and information by electronic means in forms such as vocal, pictorial, textual, numeric or the like; also refers to the theoretical and practical applications and processes utilizing such data and information;
- (g) Industrial Plant - includes all manufacturing establishments and other business

endeavors where computer or computer-controlled machinery or equipment are installed and/or are being used, sold, maintained, assembled, manufactured or operated;

- (h) Commercial Establishment - shall include but not be limited to office buildings, hotels, motels, hospitals, condominiums, stores, apartments, supermarkets, schools, studios, stadia, parking areas, memorial chapels/parks, watercraft and aircraft used for business or profit, and any other building/s or area/s for business purposes, where computer or computer-controlled machinery or equipment are installed and/or are being used, sold, maintained, assembled, manufactured or operated.
- (i) Consulting Services - as used in this By-Laws, shall include services requiring adequate technical expertise, experience and professional capability in undertaking advisory and review, pre-investment or feasibility studies, design, planning, construction, supervision, management and related services, and other technical studies or special studies in the field of computer engineering;
- (j) Accredited Professional Organization - the integrated and accredited national organization of Professional Computer Engineers, Computer Engineers, Computer Engineering Technologists, and Computer Technicians.

SECTION 3. Nature and Scope of Practice of Computer Engineering Profession.

- (a) A Computer Technician installs, configures and analyzes problems of desktop computers and software, and performs maintenance, service and complex repair of computers and related peripherals;
- (b) A Computer Engineering Technologist shall embrace and consist of all of the above plus identifies, troubleshoots and resolves computer problems. Computer technicians possess skilled knowledge and hands-on experience on utilization of different tools to repair and maintain computer hardware, software, computer networks and internet issues;
- (c) A Computer Engineer shall embrace and consist of all of the above including any work or activity relating to the application of engineering sciences and/or principles to the investigation, analysis, synthesis, planning, design, specification, research and development, provision, procurement, marketing and sales, manufacture and production, construction and installation, tests/measurements/control, operation, repair, servicing, technical support and maintenance of computer and all associated devices, products, apparatus, instruments, equipment, systems, networks, operations and processes including information and communications technology (ICT), computers networks, firmware, software development and applications, biomedical electronics, robotics, cybernetics, biometrics, embedded system, microelectronics, FPGA, and all other related and convergent fields; it also includes the administration, management, supervision and regulatory aspects of such works and activities; similarly included are those teaching and training activities which develop the ability to use computer engineering fundamentals and related advanced knowledge in computer engineering, including lecturing and teaching of technical and professional courses given in the computer engineering curriculum and certification examinations;
- (d) The scope and nature of practice of the Professional Computer Engineer shall embrace and consist of all of the above qualifications plus the sole authority to provide consulting services as defined in this By-Laws.

ARTICLE II

COMPOSITION OF THE BOARD

SECTION 4. Composition. The Board of Computer Engineering shall be composed of three (3) members. The members shall be selected from a list of nominees from recognized Regional Chapters of the Institute of Computer Engineers of the Philippines (ICpEP), Inc. The members should not be affiliated to any institution or a review center in any form.

SECTION 5. Power and Duties of the Board. The Board shall exercise executive/administrative or quasi-legislative (rule-making) or quasi-judicial (investigative) powers in carrying out the provisions of this Act. It shall be vested with the following specific powers, functions, duties and

responsibilities:

- (a) Supervise and regulate the practice of computer engineering in the Philippines;
- (b) Determine and evaluate the qualifications of the applicants for registration with or without licensure examinations and for special permits;
- (c) Prepare the examination questions in accordance with Section 24 hereof or modifications thereof; prescribe the syllabi of the subjects and their relative weights for the licensure examinations; formulate or adopt test questions and deposit them in a test question bank; draw the test questions at random through process of computerization; conduct the examination; correct and rate the examination papers manually or through process of computerization; and submit the examination results to the Professional Regulations Commission (PRC) within the period provided for by the rules of the Commission;
- (d) Prescribe, amend or revise the requirements for professional computer engineers and subjects in the licensure examination or certification examination for registered computer engineers, registered computer engineering technologists, and registered computer technicians and their relative weights, subject to the approval of the Commission;
- (e) Register successful applicants for professional computer engineers and applicants who have passed the licensure examinations for registered computer engineers, registered computer engineering technologists or registered computer technicians and issue the corresponding certificates of registration and professional licenses;
- (f) Issue special permits to individual foreign computer engineers, computer engineering technologists, and computer technicians for specific projects and for a specific duration of time;
- (g) Look into the conditions affecting the practice of the computer engineering profession, adopt measures for the enhancement of the profession and the maintenance of high professional, technical, and ethical standards and conduct ocular inspection of places where registrants practice their profession, such as, but not limited to: circuits and electronics, computing algorithms, computer architecture and organization, digital design, embedded systems, system and network administration, professional practice, information security, signal processing, systems and project engineering, software design, occupational health and safety and technopreneurship, cyber security, neural networks, data science, robotics, and automation and control. The Board shall authorize the duly integrated and accredited computer engineering association such as ICpEP and other registered computer engineering associations to render assistance in this function;
- (h) Promulgate rules and regulations including a code of ethics, administrative policies, orders and issuances to carry out the provisions of this Act;
- (i) Investigate violations of the Act and the rules and regulations, code of ethics, administrative policies, orders and issuances promulgated by the Board. The rules on administrative investigation promulgated by the Commission shall govern in such investigation;
- (j) Issue subpoena or subpoena duces tecum, to secure the attendance of respondents or witnesses or the production of documents at and relative to the investigation conducted by the Board;
- (k) Delegate the investigation of the case to the chairman, a member of the Board or a Professional Regulations Commission attorney (PRO attorney). If the case concerns strictly the practice of the profession, the investigation shall be presided by the chairman or a member of the Board with the assistance of a PRO attorney;
- (l) Render decision, order or resolution on preliminary investigation or inquiry, on undocketed cases and on docketed administrative cases against examinees or registrants which shall become final and executory unless appealed with the Commission within fifteen (15) days from receipt of the copy thereof. The decision of the Commission may be appealed to the Court of Appeals in accordance with the procedure provided in the Rules of Court;
- (m) After due notice and hearing, cancel examination papers and/or bar any examinee from future examination; refuse or defer his registration; reprimand the registrant with stern warning; suspend him from the practice of his profession; revoke his certificate of

registration; delist his name from the roll of professional computer engineers, registered computer engineers, register computer technologist and registered computer technicians for continuous nonpayment of annual registration fees and non-compliance with the Continuing Professional Development (CPD) requirements; reinstate or reenroll his name in the said roll, reissue or return his certificate of registration. A decision of suspension, revocation of the certificate of registration, or delisting from the roll by the Board as provided herein, may be appealed initially to the Commission within fifteen (15) days from receipt thereof. The decision of the Commission may be appealed to the Court of Appeals in accordance with the procedure provided in the Rules of Court.

- (n) Administer oaths in connection with the administration, implementation, or enforcement of this Act;
- (o) Submit an annual report on the proceedings and accomplishments during the year and on recommendations of the Board to the Commission after the close of each fiscal year;
- (p) Prosecute or institute criminal action against any violator of the Act and/or the rules and regulations of the Board;
- (q) Adopt an official seal;
- (r) Coordinate with the Commission on Higher Education (CHED), Technical Education Skills Development Authority (TESDA), and Department of Education (DepEd) in prescribing, amending and/or revising the courses;
- (s) Prescribe guidelines and criteria on the CPE program for professional computer engineers, registered computer engineers, register computer engineering technologist and registered computer technicians and renew their professional licenses after compliance with the CPE requirements;
- (t) Perform such other functions and duties as may be necessary to implement effectively this Act. The policies, resolutions, rules and regulations, orders or decisions issued or promulgated by the Board shall be subject to the review and approval by the commission; however, the Board's decisions, resolution or orders which are not interlocutory, rendered in an administrative case, shall be subject to review only if on appeal.

SECTION 6. Qualifications of Board Members. Each Board member must, at the time of his appointment:

- (a) Be a citizen of the Philippines;
- (b) Be of good moral character and integrity;
- (c) Be a holder of a valid Certificate of Registration and a valid Professional Identification Card as a Professional Computer Engineer, duly qualified to practice as a Professional Engineer in the Philippines;
- (d) Be an active member (at least three years) of good standing of the Institute of Computer Engineers of the Philippines (ICPEP);
- (e) Be in active practice of the computer engineering profession for at least ten (10) years prior to his appointment, either in self-practice, or employment in government service and/or in the private sector;
- (f) Must not have any pecuniary interest, directly or indirectly, in any school, academy, college, university or institution conferring an academic degree and/or certification/accreditation necessary for admission to the practice of Computer Engineering, Computer Technologist and/or Computer engineering Technician or where review classes in preparation for the certification examination are being offered or conducted nor shall he/she be a member of the faculty or of the administration thereof prior to taking his/her oath of office; and
- (g) Must not have been convicted of an offense involving moral turpitude.

SECTION 7. Term of Office. - The term of office of the Board members shall be three (3) years or until their successors are appointed and qualified. They may, however, be reappointed for a second term. Each board member is given a maximum of two (2) terms only whether consecutive or not. Each member shall qualify by taking an oath of office before entering upon the performance of his duties.

Vacancies in the Board shall be filled by the Chairman of the Board from the list of recommendees by the Commissioner who were chosen from the list of nominees submitted by the integrated and accredited association for the unexpired term only.

SECTION 8. Removal of Board Members. Any member of the Board may be removed by the President of the Philippines, upon the recommendation of the Commissioner for neglect of duty, incompetence, malpractice, commission or tolerance of irregularities in the examinations, or for unprofessional, unethical, or dishonorable conduct, after having been given the opportunity to defend himself in a proper administrative investigation.

SECTION 9. Executive Officer of the Board. The Commissioner shall be the executive officer of the Board and shall conduct the examination given by the Board and shall designate any subordinate officer of the Commission to act as secretary and custodian of all records including all examination papers and minutes of the deliberations of the Board.

ARTICLE III

EXAMINATION AND REGISTRATION

SECTION 10. Examination. Except as otherwise specifically provided in this Law, all applicants seeking to be registered and licensed or certified as Computer Technicians, Computer engineering Technologists and Computer Engineers, shall be required to pass the examinations to be given by the Board in such places and dates as the Board may designate in accordance with the provisions under the CpE Law.

SECTION 11. Qualifications for Examinations. In order to be allowed to take the examination for Computer Technician, Computer Technologist or Computer Engineer, an applicant, at the time of the filing of his/her application, must possess the following qualifications:

- (a) He/She is a citizen of the Philippines or of a foreign country qualified to take the examination as provided for in the CpE Law;
- (b) He/She is of good reputation and moral character;
- (c) For the Computer Technician examinations, is a graduate of an Associate, Technician, Trade or Vocational course in computer or subject to the evaluation of the Board, such equivalent and/or related formal or non-formal course or program from any school, college, university or training institution recognized by the government or the State where it is established, after completing a resident course or program of not less than two (2) years;
- (d) For the Computer engineering Technology examinations, has completed at least the minimum three-year equivalent of a Bachelor of Science in Computer Engineering program according to CHED guidelines, or, subject to the evaluation of the Board such equivalent and/or related engineering course or program from any school, institute, college or university recognized by the Government or State where it is established;
- (e) For the Computer Engineering examinations, he/she is a holder of a degree of Bachelor of Science in Computer Engineering, or subject to compliance with minimum requirements to be prescribed by the Board, such equivalent and/or related engineering course or program from any school, institute, college, or university recognized by the Government or the State where it is established.

SECTION 12. Ratings. The passing general average rating shall be seventy percent (70%) with no grade below fifty percent (50%) in any subject.

SECTION 13. Release of the Results of Examination. - The Board shall correct and rate the certification examination papers and shall release the examination results within fifteen (15) days after the said examination.

SECTION 14. Qualifications and Schedule of Registration for Professional Computer Engineer. For new application as a Professional Computer Engineer, the following shall be required:

- (a) Valid Certificate of Registration and Professional Identification Card as Computer Engineer and has accumulated Continuing Professional Development points as mandated in the existing CPD Law;
- (b) Valid/current membership identification card from the Accredited Professional Organization;
- (c) Certified experience record of active self-practice and/or employment either in

government service or in the private sector, in the format to be prescribed by the Board, indicating the inclusive dates, companies worked for, description of specific responsibilities, relevant accomplishments and name, position of immediate superior for a period of at least seven (7) years (inclusive and/or aggregate), at least two (2) years of which are in responsible charge of significant engineering work, from the date applicant took his/her oath as Registered or Certified Computer Engineer;

- (d) Three (3) certifications signed by three (3) Professional Computer Engineers attesting that the experience record submitted by the applicant is factual.

Applications for registration as Professional Computer Engineer may be submitted anytime to the Board.

The Board shall then schedule an en banc oral interview of the applicant for the purpose of verifying, authenticating and assessing the submittals and establishing the competency of the applicant according to rules, regulations and competency standards to be formulated by the Board.

SECTION 15. Issuance of the Certificate of Registration and Professional Identification Card. A Certificate of Registration shall be issued to applicants who pass the Professional Computer Engineers, Registered Computer Engineer, Registered Computer Engineering Technologists or Registered Computer Technician examinations subject to payment of fees prescribed by the Board.

SECTION 16. Registration without Examination or Grandfather's Rule. Within five (5) years prior the effectivity of this CpE Law, the Board shall issue Certificates of Registration and Professional Identification Cards without examination to applicants for registration who shall present evidence or other proof satisfactory to the Board.

The above submittals shall be accompanied by a certification from at least three (3) registered Professional Computer Engineers vouching for the integrity, technical capability and good moral character of the applicant. They shall satisfy the requirements in the CPD Law and an active member of any recognized professional organizations relevant to their field.

SECTION 17. Refusal to Issue Certificate. The Board shall not issue a certificate to any person convicted by a court of competent jurisdiction of any criminal offense involving moral turpitude, or to any person guilty of immoral or dishonorable conduct, or to any person of unsound mind.

SECTION 18. Professional Oath. All successful examinees and all those who have qualified for registration without examination shall be required to take a professional oath before any member of the Board or any person authorized by the Board before he/she can be registered and issued a Certificate of Registration and Professional Identification Card, and as a prerequisite to practicing as a Professional Computer Engineer, Registered Computer Engineer, Registered Computer Engineering Technologist, or Registered Computer Technician.

SECTION 19. Revocation and Suspension of Certificate of Registration, and Professional Identification Card. The Board shall, upon proper notice and hearing, revoke or suspend the validity of a Certificate of Registration and accordingly the Professional Identification Card, for any of the causes mentioned in the preceding sections, or for unprofessional or unethical conduct, malpractice, incompetence or any violation of this By-law and its implementing rules and regulations, the Code of Ethics and the Code of Technical Standards of Practice, or for fraud, deceit, or false statements.

SEC. 20. Reinstatement, Re-issuance or Replacement of Certificate of Registration and Professional Identification Card. The Board may, after the expiration of one (1) year from the date a Certificate of Registration and Professional Identification Card is revoked or for reasons it may deem sufficient, entertain an application for a new certificate of registration from the registrant concerned.

A new Certificate of Registration or Professional Identification Card to replace lost, destroyed, or mutilated certificate or registration card may be issued, subject to the rules promulgated by the Board, upon payment of the required fees.

ARTICLE IV

PRACTICE OF PROFESSION

SECTION 21. Practice of the Profession. No person shall offer himself/herself in the Philippines as, or use the title "Professional Computer Engineer", "Registered Computer Engineer", "Registered Computer Engineering Technologist" or "Registered Computer Technician", as defined in this Law, or use any word, letter figure, or sign whatsoever, tending to convey the impression that he/she is qualified to perform the work of a Professional Computer Engineer, Registered Computer Engineer, Registered Computer Technologist, or Registered Computer Technician, without holding a valid Certificate of Registration and a valid Professional Identification Card in accordance with this Law.

SECTION 22. Prohibitions and Limitations on the Practice of Computer Engineering, Computer Engineering Technologist and Computer Technician Profession. Unless otherwise prescribed by any supervening law, the practice of computer engineering, computer technologist and computer technician shall be a professional service, admission to which must be determined on the basis of the individual's personal qualifications. Hence, no firm, company, partnership, association or corporation may be registered or licensed as such for the practice of computer engineering, computer technologist and computer technician. However, persons properly registered and licensed as Professional Computer Engineers, Registered Computer Engineers, Registered Computer Engineering Technologist or Registered Computer Technician may, among themselves or with any other allied professionals, form a partnership or association or corporation and collectively render services as such: Provided, That individual members of such partnerships or associations or corporations shall be responsible for their own respective acts.

SECTION 23. Code of Ethics and Code of Technical Standards of Practice. The Board shall adopt a Code of Ethics and the Code of Technical Standards of Practice for Computer Engineers, Computer Engineering Technologists and Computer Technicians, which shall be promulgated by the Accredited Professional Organization.

ARTICLE V

COVERAGE OF BOARD EXAM

SECTION 24. Scope of Examination for Computer Engineers, Computer Engineering Technologists and Computer Technicians. - The examinations for Computer Technician shall consist of written and/or practical tests covering subjects to be prescribed by the Board and shall cover topics or courses specific to the practice of Computer Technicians. The examination for Computer Engineering Technology and Computer Engineers shall consist of written tests which shall cover topics or courses prescribed by the Board.

ARTICLE VII

FINAL PROVISIONS

SECTION 25. Appropriations. The Chairperson of the Professional Regulation Commission shall immediately include in the Commission's programs the implementation of this Act, the funding of which shall be included in the annual General Appropriations Act.

SECTION 26. Separability Clause. If any part of this Act or the application of such provision or circumstance is declared unconstitutional, the remainder of this Act or the application of such provision to other persons or circumstances shall not be affected by such declaration.

SECTION 27. Effectivity Clause. This Act shall take effect after thirty (30) days following its full publication in the Official Gazette or newspaper of general circulation.

Approved,