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FOURTEENTH CONGRESS OF THE REPUBLIC) OF THE PHILIPPINES )

Second Regular Session

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## SENATE S.B. No. 3171

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Introduced by Senator Miriam Defensor Santiago

## EXPLANATORY NOTE

"This is an exciting time to study nuclear science and engineering: society's interest in, and need for, a clean energy source such as nuclear energy is at a 20-year high. The applications of other nuclear technologies in medicine and industry have focused attention on the value of a strong nuclear science and engineering program." (Department of Nuclear Science and Engineering of the Massachusetts Institute of Technology)

"New scientific paradigms are pushing the frontier in all areas of the natural, social, and human sciences. Science, Technology and Innovation (STI) are now universally recognized as the drivers of national economic development, and key contributors to poverty reduction, disease prevention and environmental conservation." (UNESCO Science Policy)

Science and technology is one of the driving forces of societal progress. Nuclear technologies in medicine, industry, energy, agriculture and other fields have generated billions for the United States and have created millions of jobs. Neighboring countries such as the Republic of Korea and Taiwan have learned, in a short span of time, to capitalize on new nuclear-based technologies to stimulate economic growth.

It is notable that the Philippines, through the efforts of the Philippine Nuclear Research Institute (PNRI) and its collaborators have made advances in nuclear-based technologies with agriculture and the environment sectors as the major beneficiaries.

However, we have a long way to go to fully realize the potential of nuclear science and nuclear engineering such that its application will find its way in most of our industries leading to economic growth and better quality of life for all.

MIT reports that "the nuclear industry is experiencing a major resurgence worldwide, leading to high demand for nuclear engineers." Hence, it is strategic for our country to develop a deep pool of nuclear scientists and engineers. This bill provides for scholarship grants aimed to encourage and motivate our youth to pursue a career in nuclear science and nuclear engineering.

au MIRIAM DEFENSOR SANTIAGO

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## SENATE S.B. No. <u>3171</u>

	Introduced by Senator Miriam Defensor Santiago
1 2 3	AN ACT ESTABLISHING A NATIONAL SCHOLARSHIP PROGRAM FOR STUDIES IN NUCLEAR SCIENCE AND NUCLEAR ENGINEERING
4 5 6 7	Be it enacted by the Senate and the House of Representatives of the Philippines in Congress assembled:
8	SECTION 1. Short Title This Act shall be known as the "Nuclear Science and
9	Nuclear Engineering Scholarship Act of 2009."
10	SECTION 2. Declaration of Policy Science and technology are essential for
11	national development and progress. It is hereby declared the policy of the State to
12	promote the development of the country's science and technology by promoting and
13	enhancing the capabilities required in the areas of research, development, innovation as
14	well as their utilization. As such, it shall provide for scholarships, grants-in-aid, or other
15	forms of incentives to deserving science students and other specially-gifted citizens to
16	enable them to pursue higher education or training in areas of science and technology.
17	SECTION 3. Definition of Terms For purposes of this Act, the following terms
18	are defined:
19	(1) "DOST" – Department of Science and Technology
20	(2) Nuclear science $-$ the study of the atomic nucleus
21	(3) Nuclear engineering - the application of the breakdown of atomic nuclei
22	and/or other sub-atomic physics, based on the principles of nuclear physics. It
23	includes, but is not limited to, the interaction and maintenance of nuclear
24	fission systems and components— specifically, nuclear reactors, nuclear
25	power plants, and/or nuclear weapons. The field may also include the study of

nuclear fusion, medical and other applications of (generally ionizing) radiation, nuclear safety, heat/thermodynamics transport, nuclear fuel and/or other related (e.g., waste disposal) technology, nuclear proliferation, and the effect of radioactive waste or radioactivity in the environment

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5 SECTION 4. *In General.* – A National Scholarship Program for Studies in 6 Nuclear Science and Nuclear Engineering shall be created and spearheaded by the 7 Department of Science and Technology (DOST), in coordination with such government 8 agencies and institutions involved in fostering the development of nuclear science and 9 nuclear engineering in the country.

10 SECTION 5. *Application*. – An eligible undergraduate institution may receive a 11 grant upon proper application to the Secretary of the DOST. The application shall include 12 a cost effective proposal on how the scholarship grant shall be expended to attain the 13 objective of fostering the development of nuclear science and nuclear engineering in the 14 country including but not limited to proposed scholars willing and capable to undertake 15 comprehensive training on nuclear science and technology as well as the institutions, 16 locally or abroad, which will provide such training.

17 SECTION 6. *Duration* – The National Scholarship Program for Studies in 18 Nuclear Science and Nuclear Engineering shall last for four years. Thereafter, the 19 program shall be evaluated according to criteria and measures to be determined by the 20 DOST.

SECTION 7. *Report.* – The DOST shall transmit a progress report to Congress
every year for the duration of the program.

23 SECTION 8. *Appropriations*. – The amount necessary to carry out the provisions
24 of this Act, are hereby authorized to be appropriated from the National Treasury.

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1	SECTION 9. Separability Clause. – If any provision or part hereof, is held invalid
2	or unconstitutional, the remainder of the Act or the provision not otherwise affected shall
3	remain valid and subsisting.
4	SECTION 10. Repealing Clause Any law, presidential decree or issuance,
5	executive order, letter of instruction, administrative order, rule or regulation contrary to,
6	or inconsistent with the provisions of this Act is hereby repealed, modified or amended

- 7 accordingly.
- 8 SECTION 11. *Effectivity Clause*. This Act shall take effect fifteen (15) days 9 after its publication in at least two (2) newspapers of general circulation.
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11 Approved,

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