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**Macao Special Administrative Region
Administrative Regulations No.6/2011**

Regulations on Science and Technology Awards

This supplementary administrative regulation is formulated by the Chief Executive of the Macao Special Administrative Region in accordance with provision of Item (5), Article 50 of the *Basic Law of Macao Special Administrative Region* and Paragraph 3, Article 8 of the *Basic Rules for Policies Regarding Science and Technology* (Law No.9/2000) and after consultation with the Executive Council.

**Chapter I
General Provisions**

Article 1
Purpose

1. This Administrative Regulation provides criteria for the Government of Macao Special Administrative Region to reward people who engaged in the science and technology work.

2. The science and technology awards referred to in this Administrative Regulation aim to reward people who make contribution to local scientific and technological activities, inspire the enthusiasm and creativity of local scientists and technologists, and accelerate the development of scientific and technological undertakings in Macao.

Article 2
Type of Awards

The Government of Macao Special Administrative Region establishes the following science and technology awards:

1) Science and Technology Award, including the following categories:

(1) Natural Science Award: reward people who have made achievement in basic and applied research and published their research outcomes in academic journals publicly distributed at home and abroad or as scholarly monographs;

(2) Technological Invention Award: reward people who have invented new products, technologies or industrial techniques of market value by applying the knowledge of science and technology.

(3) Science and Technology Progress Award: reward people who have made contribution to the application and promotion of advanced scientific and technological achievements and generate significant economic and social benefits.

2) Scientific and Technological R&D Award for Postgraduates: reward postgraduates who have taken an active part and played an important role in the scientific and technological research and development of their institutions of higher learning in order to encourage them to participate in scientific and technological research and development.

3) Special Award: reward local people or organizations which win the National Natural Science Award, National Technological Invention Award or National Scientific and Technological Progress Award.

Article 3

Implementation of Awards

1. The Government of Macao Special Administrative Region will establish an Award Judging Committee, which is responsible for assessing the science and technology awards.

2. The Science and Technology Development Fund (hereinafter referred to as the “FDCT”) is responsible for accessing the Scientific and Technological R&D Award for Postgraduates and the organizing work of assessing the Science and Technology Award, as well as for providing necessary logistic and technical assistance for operation of the Award Judging Committee.

3. The obligations incurred by award granting shall be borne by FDCT through its budget.

Article 4

Conditions for Application

1. Subject to the following conditions, the Science and Technology Award is open to either Macao residents or people who have obtained work permit or are attending school in Macao:

1) The applicant has been employed full-time by Macao employers or attended Macao schools for one year or more;

2) The applicant has conducted and completed the main part of his/her scientific research and technological development in Macao and produced outcomes;

3) If the applicant conducts scientific research or technological development in collaboration with scholars outside Macao, he/she must be the principal person to complete the project.

2. For a master student or doctoral student who is now schooling in Macao institutions of higher learning or has graduated within one year before the date of announcement of the award application, so long as he/she has continuously participated in natural science, technological or engineering research for one year or more and is recommended by the institution of higher learning he/she belongs to, he/she is eligible to apply for the Scientific and Technological R&D Award for Postgraduates.

Article 5

Presenting of the Science and Technology Award

1. Winners of the Science and Technology Award will be presented with cash awards and testimonial. The amount of the cash awards for respective award categories will be specified in Table 1 of Appendix 1, which is an integral part of this Administrative Regulation, and may be modified only in accordance with the Dispatches of the Chief Executive announced in the *Official Gazette of Macao Special Administrative Region*.

2. The number of award items under the Science and Technology Award will be determined by the Award Judging Committee according to the application situation of the year concerned.

3. Each research project can be presented with the Science and Technology Award only once.

4. Each winning project can have no more than five award eligible participants.

5. Participants of the award winning projects will distribute the cash awards among themselves subject to their respective contribution.

Article 6

Presenting of the Scientific and Technological R&D Award for Postgraduates

1. Each winner of the Scientific and Technological R&D Award for Postgraduates will be presented with the cash awards and testimonial specified in Table 2 of Appendix 1 to this Administrative Regulation.

2. The winners of the Scientific and Technological R&D Award for Postgraduates shall not exceed thirty in number.

Article 7

Presenting of the Special Award

The cash awards for the Special Award will be presented according to the criteria stipulated in Table 1 of Appendix 1 to this Administrative Regulation.

Chapter II

Application Procedures

Article 8

Application

1. Applications will be accepted once every two years. FDCT is responsible for making announcement on the acceptance of applications.

2. A research project that has won an award item of the Science and Technology Award established by this Administrative Regulation shall not be utilized again to apply for other award items.

3. A research project that has won the Special Award established by this Administrative Regulation shall not be utilized again to apply for the Science and Technology Award.

4. A postgraduate student who has won the Scientific and Technological R&D Award for Postgraduates established by this Administrative Regulation shall not apply again for the same award.

5. A research project shall not be utilized to apply for the Natural Science Award, Technological Invention Award and Science and Technology Progress Award simultaneously in the same period.

6. Application for the Special Award shall be processed by the applicant himself/herself.

7. The application archives shall be submitted to FDCT by the applicants.
8. Once the application is accepted, FDCT may announce it publicly forthwith.

Article 9 Composition of the Archives

1. The application archives referred to in the preceding article shall include the following documents:

- 1) Application forms that have been filled in properly;
- 2) Photocopy of the identity document of the applicant; if the applicant is not a Macao resident, he/she needs further to submit a photocopy of his/her valid work permit or school attendance certificate;
- 3) Certificates of scientific and technological achievements, such as books, papers, research reports, intellectual property certificates and testimonial in particular;
- 4) In respect to application for the Science and Technology Award, reference letters written by 2 people with the title of or above associate professor who are not associated with the research project team applying for the award;
- 5) In respect to application for the Scientific and Technological R&D Award for Postgraduates, a reference letter provided by the institution of higher learning to which the applicant belongs.

2. Applicants may submit the original, certified or duplicate copy of their documents. If they submit duplicates, they must also bring along with their originals for checking by FDCT.

Article 10 Preliminary Analysis

1. FDCT shall make preliminary analyses on the application archives to check whether they are correct and complete and whether the applicants concerned are eligible for the award.

2. If an application archive fails to meet the foregoing provisions, FDCT will require the applicant concerned to supplement the materials within 15 days; otherwise, the application will be rejected.

Chapter III

Assessing and Announcement of the Science and Technology Award

Article 11

Award Judging Committee

1. An Award Judging Committee consisting of 5-11 members will be set up.
2. The Award Judging Committee will be made up of people who are widely recognized as excellent in the fields of science, technology and innovation and appointed in accordance with the Dispatch of the Chief Executive announced in the *Official Gazette of Macao Special Administrative Region*.
3. The Award Judging Committee is responsible for assessing and commenting each of the award application.
4. The remuneration for members of the Award Judging Committee shall be determined in accordance with the Dispatch of the Chief Executive published in the *Official Gazette of Macao Special Administrative Region*.
5. People who are invited to attend the assessing meeting without voting right shall all have the right to attendance fee, which shall be equal to that paid to workers in the public administration on similar occasions.
6. Operating rules for the Award Judging Committee shall be formulated by the Committee itself.

Article 12

Assessing

1. Applications will be assessed in respect to the academic value, scientific merit, novelty, social contribution and economic benefits of the research project it concerns in accordance with the reference criteria stipulated in Attachments 2-4 as a part of this Administrative Regulation.
2. As occasion requires, the Award Judging Committee may organize field investigation and oral defense for research projects applying for the award.
3. The Award Judging Committee may invite experts who are deemed to be beneficial to the Committee's work to comment on the applications by appearing in the assessing meeting or through letters or the internet.

Article 13
Determination

1. The Award Judging Committee shall score the applications in accordance with the judging criteria and put forward proposed candidates for the award and the levels of their awards.

2. FDCT shall then announce the proposed list of winners of the award on its website.

3. If any entities or individuals have objections to the proposed winners, they shall raise their objections to FDCT within 15 days after announcement of the proposed winners.

4. If no objections are raised or the Award Judging Committee determined that the objections raised are invalid, FDCT shall then prepare the proposals and submit them to the Chief Executive for approval.

5. The final list of winners shall be announced in the *Official Gazette of Macao Special Administrative Region*.

Chapter IV
**Assessing and Announcement of the Scientific and Technological R&D Award
for Postgraduates**

Article 14
Assessing and Determination

1. FDCT shall assess and score the applications on the basis of references made by relevant institutions of higher learning.

2. FDCT shall announce the proposed list of winners on its website.

3. If any entities or individuals have objections to the proposed winners, they shall raise their objections to FDCT within 15 days after the announcement of the proposed winners.

4. If no objections are raised or FDCT determined that the objections raised are invalid, FDCT shall then approve and announce the final list of winners.

Chapter V

Supplementary Provisions

Article 15 Withdrawal

If a person is required to withdraw in accordance with provisions of the *Administrative Procedure Act* of Macao, the person shall not participate in the assessing procedures of the award concerned.

Article 16 Repeal of Award and Punishment Rules

1. If an award winner is found out to have made false statements or concealed important facts, FDCT may repeal the award presented in accordance with decisions of the Chief Executive while reserving the right to hold him/her legally responsible for the misconduct.

2. If an award is repealed, the award winner shall return the cash awards and testimonial presented to him/her forthwith.

Article 17 Effect

This Administrative Regulation shall take effect on the next day of its publishing.

Formulated on February 11, 2011

Order issued.

The Chief Executive, Chui Sai On

Appendix I
(Referred to in Paragraph 1 of Article 5, Paragraph 1 of Article 6 and Article 7)

Table 1 Cash Awards for the Science and Technology Award and Special Award

(Unit: 10,000 MOP)

	First-level	Second-level	Third-level
Natural Science Award	100	60	40
Technological Invention Award	100	60	40
Science and Technology Progress Award	50	30	20

Table 2 Cash Awards for the Scientific and Technological R&D Award for Postgraduates

(Unit: 10,000 MOP)

	Amount
Doctoral Students	8
Master Students	6

Appendix II
(Referred to in Paragraph 1 of Article 12)

Reference Criteria for the Natural Science Award

Category		Score Cap
Each outstanding monograph of science and technology		10
Each paper	Published in <i>SCIENCE</i> or <i>NATURE</i>	50
	Collected by SCIE, scored by the impact factor	10
	Collected by SCIE, scored by journal ranking percent	10
	In the case of the SCIE-collected paper, certain points will be given to every time of citation by others	0.1/time
	Collected by EI	2
	Core journals of the Mainland	2
Participation in international academic conferences and publication of papers		4
Each student fostered		3

Explanations of various foregoing indicators are made as follows:

1. **Outstanding monograph of science and technology:** it must be an already published monograph (excluding textbooks) which relates to the research outcome of the research project currently applying for the award and which first author must be the principal person to complete the research work. Meanwhile, such information as the citation (application) situation, publishing and distribution volume of the monograph shall also be provided.

2. **Paper:**

1) A paper shall refer to any of such three types of documents as articles, reviews and letters; and such documents without research content as meeting abstracts, editorials, news items, errata, comments and book reviews shall not be counted as papers in the said sense.

2) The SCIE (Science Citation Index Expanded) mentioned in the scoring standards shall be published by Institute for Scientific Information (ISI) of America while the EI (Engineering Index) shall be published by Engineering Information Inc.

3) If a paper is collected by several different index systems, the highest level of score shall be applicable.

4) For a SCIE-collected paper, the applicant shall choose from the scoring method by the impact factor or journal ranking percent (journal ranking/number of total journals in the area, subject to the latest JCR published by ISI).

5) Core journals of the Mainland refer to those included in the latest *Chinese S&T Journal Citation Reports* (CJCR) published by Institute of Scientific & Technical Information of China (ISTIC).

6) The institution of the first author of a paper must be consistent with the institution applying for the award.

3. **Participation in international conferences:** such conference must be one listed in the latest CPCI-S (Conference Proceedings Citation Index-Science) published by ISI.

4. Papers published in *SCIENCE* or *NATURE* or SCIE-collected papers with an impact factor of ≥ 5 or a journal ranking percent of $<10\%$ can be counted in the scoring in their entirety, while other papers (SCIE-collected papers beyond the foregoing scope plus papers collected or published in the EI, CPCI-S and core journals of the Mainland) are subject to the ceiling of ten.

5. **Student cultivation:** the duration of participation in the research shall be no less than half a year for an undergraduate student and no less than 50% of the research term for a master student or doctoral student.

**Appendix III
(Referred to in Paragraph 1 of Article 12)**

Reference Criteria for the Technological Invention Award

Indicator		Meaning and Explanation	Score Cap
Level of technological invention	1. Creativity	It refers to the level of creativity in the technical concept, principle and method, etc.	25
	2. Progressiveness	It refers to the level of advancement of the key performance parameters and technical and economic indexes compared with existing technologies at home and abroad.	25
	3. Research difficulty	It refers to the width and depth of the disciplines and specialties concerned as well as the current technical conditions of Macao.	10
Social and economic benefits	4. Technical maturity and readiness	It refers that the invention has generated production capacity or reached the level of application, including stability and reliability of the technology.	20
	5. Development prospect and potential returns	It refers to the application prospect and anticipated economic and social benefits of the research result.	20
6. Patent right		It refers that the invention has acquired invention or utility patent rights and the awards presented.	5 (each)

**Appendix IV
(Referred to in Paragraph 1 of Article 12)**

Reference Criteria for the Science and Technology Progress Award

Indicator		Meaning and Explanation	Score Cap
Technological innovation	1. Level of innovation	It refers that key technical problems are solved, breakthroughs are made, core technologies are mastered and	20

		integrated innovation is conducted through research in promoting and applying existing technologies and achievements.	
	2. Scientific merit	It refers to rigorous research design, logical analysis and argumentation, compliance with relevant experiment conditions, correctness of statistical data, true and reliable materials and repeatable research results.	10
	3. Research difficulty	It refers to the width and depth of the disciplines and specialties concerned as well as the current technical conditions of Macao.	5
Social and economic benefits	4. Economic benefits	It refers to the direct and indirect economic benefits generated after the result is applied and its cost-benefit ratio.	25
	5. Social benefits	It refers to the level of contribution to the improvement of Macao's scientific research and infrastructure construction and the roles played in environmental and ecological protection, energy saving and pollutant reduction, healthcare and social welfare, etc.	25
	6. Role in driving the progress of Macao's science and technology	It refers to the suitability in further developing, promoting and applying the research outcome and the role it plays in optimizing the industrial structure of Macao.	10
	7. Achievement in talent cultivation	It refers to the effect of fostering young researchers and students.	5