

APPENDIX



Appendix

Appendix I: Subject Fields Used By Institute for Scientific Information (ISI)

The 105 Deluxe fields are subdivided as follow:

- Science and Technology – 82 fields
- Social Sciences – 12 fields
- Arts and Humanities – 10 fields
- Multidisciplinary – 1 field

STANDARD FIELDS	DELUXE FIELDS
Agricultural Sciences	Agricultural chemistry Agriculture/Agronomy Food Science/Nutrition
Astrophysics	Space Science
Biology & Biochemistry	Biochemistry & Biophysics Biology, General Biotechnology & Applied Microbiology Endocrinology, Nutrition & Metabolism Experimental Biology Physiology
Chemistry	Chemical Engineering Chemistry & Analysis Chemistry Inorganic & Nuclear Chemistry Organic Chemistry/ Polymer Science Physical Chemistry/ Chemical Physics Spectroscopy/ Instrumentation/ Analytical Science
Clinical Medicine	Anesthesia & Intensive Care Cardiovascular & Hematology Research Cardiovascular & Respiratory System Clinical Immunology & Infectious Disease Clinical Psychology & Psychiatry Dentistry/Oral Surgery & Medicine Dermatology Endocrinology, Metabolism & Nutrition Environmental Medicine & Public Health Gastroenterol and Hepatology General & Internal Medicine Health Care Science & Services Hematology Medical Research, Diagnosis & Treatment Medical Research, General Topics Medical Research, Organs & System Neurology Oncogenesis & Cancer Res Oncology Ophthalmology Orthopedics & Sports Med Otolaryngology Pediatrics Pharmacology/ Toxicology Radiology, Nuclear Medicine & Imaging Reproductive Medicine Research/Lab Medicine & Medical Technology Rheumatology Surgery Urology & Nephrology
Computer Science	Computer Science & Engineering Information Technology & Communications System
Ecology/ Environment	Environment/Ecology
Economics & Business	Economics Management

STANDARD FIELDS	DELUXE FIELDS
Education	Education
Engineering	Aerospace Engineering AI, Robotics & Automatic Control Civil Engineering Electrical & Electronics Engineering Engineering Mathematics Engineering Management/General Environmental Engineering/Energy Instrumentation/Measurement Mechanical Engineering Nuclear Engineering
Geoscience	Earth Science Geological, Petroleum & Mining Engineering
Immunology	Immunology
Law	Law
Materials Science	Materials Science & Engineering Metallurgy
Mathematics	Mathematics
Microbiology	Microbiology
Molecular Biology & Genetics	Cell & Developmental Biology Molecular Biology & Genetics
Multidisciplinary	Multidisciplinary
Neurosciences	Neurosciences & Behavior
Pharmacology	Pharmacology & Toxicology
Physics	Applied Physics/Condensed Matter/Materials Science Optics & Acoustics Physics
Plant & Animal Sciences	Animal & Plant Sciences Animal Sciences Aquatic Sciences Entomology/Pest Control Plant Sciences Veterinary Med/Animal Health
Psychology/ Psychiatry	Psychiatry Psychology
Social Sciences, General	Communication Environmental Studies, Geography & Development Library & Information Science Political Science & Public Administration Public Health & Health Care Science Rehabilitation Social Work & Social Policy Sociology & Anthropology
Arts & Humanities	Archaeology Art & Architecture Classical Studies General History Language & Linguistics Literature Performing Arts Philosophy Religion & Theology

Appendix

Appendix II: Science and Technology Subject Fields Used by ISI

STANDARD FIELDS	DELUXE FIELDS
Agricultural Sciences	Agricultural chemistry Agriculture/Agronomy Food Science/Nutrition
Astrophysics	Space Science
Biology & Biochemistry	Biochemistry & Biophysics Biology, General Biotechnology & Applied Microbiology Endocrinology, Nutrition & Metabolism Experimental Biology Physiology
Chemistry	Chemical Engineering Chemistry & Analysis Chemistry Inorganic & Nuclear Chemistry Organic Chemistry/ Polymer Science Physical Chemistry/ Chemical Physics Spectroscopy/ Instrumentation/ Analytical Science
Clinical Medicine	Anesthesia & Intensive Care Cardiovascular & Hematology Research Cardiovascular & Respiratory System Clinical Immunology & Infectious Disease Clinical Psychology & Psychiatry Dentistry/Oral Surgery & Medicine Dermatology Endocrinology, Metabolism & Nutrition Environmental Medicine & Public Health Gastroenterol and Hepatology General & Internal Medicine Health Care Science & Services Hematology Medical Research, Diagnosis & Treatment Medical Research, General Topics Medical Research, Organs & System Neurology Oncogenesis & Cancer Res Oncology Ophthalmology Orthopedics & Sports Med Otolaryngology Pediatrics Pharmacology/ Toxicology

STANDARD FIELDS	DELUXE FIELDS
	Radiology, Nuclear Medicine & Imaging Reproductive Medicine Research/Lab Medicine & Medical Technology Rheumatology Surgery Urology & Nephrology
Computer Science	Computer Science & Engineering Information Technology & Communications System
Ecology/ Environment	Environment/Ecology
Engineering	Aerospace Engineering AI, Robotics & Automatic Control Civil Engineering Electrical & Electronics Engineering Engineering Mathematics Engineering Management/General Environmental Engineering/Energy Instrumentation/Measurement Mechanical Engineering Nuclear Engineering
Geoscience	Earth Science Geological, Petroleum & Mining Engineering
Immunology	Immunology
Materials Science	Materials Science & Engineering Metallurgy
Mathematics	Mathematics
Microbiology	Microbiology
Molecular Biology & Genetics	Cell & Developmental Biology Molecular Biology & Genetics
Neurosciences	Neurosciences & Behavior
Pharmacology	Pharmacology & Toxicology
Physics	Applied Physics/Condensed Matter/Materials Science Optics & Acoustics Physics
Plant & Animal Sciences	Animal & Plant Sciences Animal Sciences Aquatic Sciences Entomology/Pest Control Plant Sciences Veterinary Med/Animal Health
Psychology/ Psychiatry	Psychiatry Psychology

Appendix III: Government Support and Funding Agencies for Science and Technology

Grants/Schemes/Funding Agencies	Administered By
Industry R & D Grant Scheme (IGS)	Ministry of Science, Technology and Innovation
Intensification of Research in Priority Areas Program (IRPA)	
Multimedia Super Corridor (MSC) Research and Development Grant Scheme (MGS)	Multimedia Development Corporation Sdn Bhd
Commercialization of R & D Fund (CRDF)	Malaysian Technology Development Corporation (MTDC)
Technology Acquisition Fund (TAF)	
Technology Acquisition Fund for Women (TAF-W)	
Demonstrator Application Grant Scheme (DAGS)	MIMOS Berhad.
Upgrading Engineering Design	Small and Medium Industries Development Corporation (SMIDEC)
E-Manufacturing Grant	
RosettaNet Standard Implementation for SMEs	
Industrial Technical Assistance Fund (ITAF)	
Double Deduction	Inland Revenue Board

Appendix IV: Types of Patent According to US Patent and Trademark Office

The U.S. Patent and Trademark Office (PTO) issues several different types of patent documents which offers different kinds of protection and covers different types of subject matter, as follows:

- **Utility Patent-** Issued for the invention of a new and useful process, machine, manufacture, or composition of matter, or a new and useful improvement thereof, it generally permits its owner to exclude others from making, using, or selling the invention for a period of up to twenty years from the date of patent application filing ++, subject to the payment of maintenance fees. Approximately 90% of the patent documents issued by the PTO in recent years have been utility patents, also referred to as “patents for invention.”
- **Design Patent-** Issued for a new, original, and ornamental design for an article of manufacture, it permits its owner to exclude others from making, using, or selling the design for a period of fourteen years from the date of patent grant. Design patents are not subject to the payment of maintenance fees.
- **Plant Patent-** Issued for a new and distinct, invented or discovered asexually reproduced plant including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, it permits its owner to exclude others from making, using, or selling the plant for a period of up to twenty years from the date of patent application filing ++. Plant patents are not subject to the payment of maintenance fees.

- Reissue Patent- Issued to correct an error in an already issued utility, design, or plant patent, it does not affect the period of protection offered by the original patent.
- Defensive Publication (DEF) - Issued instead of a regular utility, design, or plant patent, it offers limited protection, defensive in nature, to prevent others from patenting an invention, design, or plant. The Defensive Publication was replaced by the Statutory Invention Registration in 1985-86.
- Statutory Invention Registration (SIR) - This document replaced the Defensive Publication in 1985-86 and offers similar protection.

Note: (++) - Although, the length of utility and plant patent protection (patent term) was previously seventeen years from the date of patent grant, utility and plant patents filed after June 8, 1995 now have a patent term of up to twenty years from the date of filing of the earliest related patent application. Utility and plant patents which were applied for prior to June 8, 1995, and which were or will be in force after June 8, 1995, now have a patent term of seventeen years from the date of patent grant or twenty years from the date of filing of the earliest related patent application, whichever is longer. Utility patents are subject to the payment of periodic maintenance fees to keep the patent in force. Patent terms can be extended under some specific circumstances.

