

Scientific Pursuit in the Contemporary Muslim Science Centers: An Overview

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In twentieth century it was a moment of contemplation and pondering over the life conditions of Muslims all over the world. Muslims in general and Muslim countries in particular were facing numerous questions from science front of the world. Questions came up one after the other in a rapid succession: Can Muslims make some prominent and quite distinguished contribution? Where is Islam's role in sciences and technology? Where do Muslims stand in respect of world civilization and what was their place in past civilizations? What is Islam's view concerning modern scientific innovations? To fill up this gulf Muslims initiated to make science centers, organizations and foundations. In this backdrop it seems desirable to introduce some of the important Centers where Muslim scholars, all over the world, are engaged in the pursuit of Scientific knowledge.

1. The Islamic World Academy of Science (IAS)



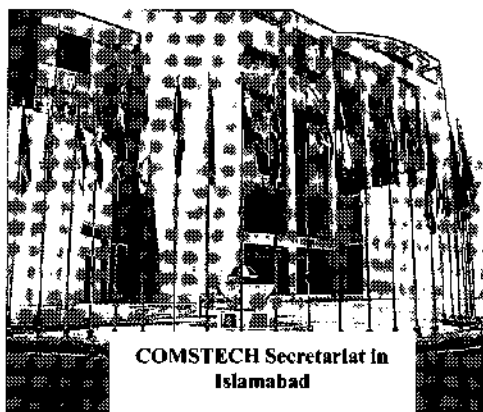
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Introduction

Scientific Institutions have always had a major role in promoting science and technology and thus influencing the general state of development of all societies. In response to the need for an International organization that could undertake such a task, the *Islamic World Academy of Sciences (IAS)* came into being as an independent, non-political, non-governmental and non-profit making organization of distinguished scientists and technologists

dedicated to the promotion of all aspects of science and technology in the Islamic World, for the benefit of mankind. The establishment of the Islamic World Academy of Sciences (*IAS*) was proposed by the OIC Standing Committee on Scientific and Technological Co-



COMSTECH Secretariat in Islamabad

operation (COMSTECH)², and approved by the Fourth Islamic Summit held in Casablanca in 1984³. The IAS was founded formally in 1986 with the patronage and support of Jordan and Pakistan and under the inspired and farsighted leadership of the late Dr. M.A. Kazi (FIAS Pakistan), IAS' Founding President and the late Dr. Ali Kettani (FIAS Morocco), IAS Founding Secretary General. The Founding Fellow of the IAS numbered only 38, who shared a vision of independent non-political organization that is mandated to help the *Ummah* realize socio-economic advancement through science and technology. ⁴

Operating from its Amman Secretariat, the Academy hopes to continue the work it had started in 1986, namely assisting the

decision-makers and scientists and technologists of the *Ummah* and helping them achieve an advanced level of development for their countries.⁵ The Academy is a sovereign body governed by a General Assembly in which all Founding and elected Fellows are member. The number of Academy Fellows was 88 in January 2001 they represent more than 30 countries and numerous scientific disciplines. The Fellows of the Academy are eminent figures, each of whom in his field have achieved a great deal and have contributed significantly to his country's development and to that of the Developing World in general.⁶

The Academy's primary sources of income are the annual grants it receives from the government of Jordan, allocated general and administrative expenses, and that of *COMSTECH*, which is wholly allotted to activities and programmes. The programmes of the Academy are further financed through grants from Islamic organizations such as the Islamic Development Bank (IDB).

The Academy also undertakes joint programmes with many *UN* and other international agencies such as the United Nations Educational, Scientific and Cultural Organization (UNESCO)⁷ and the United Nations Environment Programme (*UNEP*), as well as the World Bank. Moreover, the Academy sometimes receives donations from local and international companies as well as charities in the Islamic World.⁸

AIMS AND OBJECTIVES OF IAS

1. IAS aims to increase interaction among scientists and facilitate the exchange of views on development issues, and to function as the Islamic Brain Trust helping the Islamic and Developing Worlds in scientific and technology fields.⁹

2. IAS's mission is to provide an institutional set up for the utilisation of Science and Technology for the development of Islamic countries and humanity at large.¹⁰
3. To serve as a consultative organisation of the Muslim Ummah and institutions of member states of the Organisation of the Islamic Conference (OIC), on matters related to science and technology;
4. To initiate scientific and technological programmes and activities in science and technology, and to encourage co-operation among research groups in the various Islamic countries on projects.
5. To encourage and promote research on major problems of importance facing the Islamic countries and to identify future technologies of relevance for possible adoption and utilization; and
6. To formulate standards of scientific performance and attainment and to award prizes and honours for outstanding scientific achievements to centres of excellence in all science and technology disciplines.¹¹

Achievements

The number of publications originating from the Islamic World is very small. Publications, whether in the form of scientific articles, books or monographs are generally in very short supply. The Academy realizing the need for such publications, has committed itself to publish a series of books/monographs that address contemporary scientific issues, in a fresh and concise manner. The first of these publications is a book by the late M. A. Kazi entitled *Islamic Thought and Modern Science* (1998) The second of these publications is also a book by the late M. A. Kazi entitled *Qur'anic Concepts and Scientific Theories* (1999) .The latest book published by the IAS is the English / Arabic version of *Personalities*

Noble¹² (2000).¹³ Upon the request of the Organisation of the Islamic Conference (OIC) Standing Committee on Scientific and Technological Co-operation (COMSTECH), and under its sponsorship, the Academy publishes the Arabic version of COMSTECH's *Islamic Thought and Scientific Creativity*, the high quality quarterly publication. A total of twenty issues of the Arabic version were published and distributed. This was done, as a joint activity of the Academy and the Amman-based Royal Academy for Islamic Civilisation Research, *Al Albait Foundation*.¹⁴

The Academy also publishes a *Brochure* or *Guide*. The guide contains highlights of the overall programme, a summary of the activities, updated list of Academy Fellows as well as a brief account of the Academy's long term plans, and future activities. The Academy, through its Secretariat, regularly publishes the *Newsletter* of the Islamic World Academy of Sciences. This widely distributed publication aims to publicize the various activities the Academy undertakes, and also to put across the Academy's programmes. It also often contains news about the Academy, its Fellows and staff. The *Newsletter*, as well as regularly profiling some Academy Fellows, frequently contains specialized and guest articles on contemporary scientific and technical topics including such matters as the S&T potential of OIC-member countries and institutions.

The "*Journal of the Islamic World Academy of Sciences*", which first appeared in August 1988, is a quality publication comparable to international scientific journals. Through the dedication of a small group of Academy Fellows headed by Prof. Naci M Bor, the Editor in Chief of the Journal, the *Journal* has made since then, a good record of quality and periodicity and has been granted an ISSN number (ISSN 1016-3360). For the first ten years of its existence, the *Journal* was a broad-based scientific publication on

average carrying general scientific articles. The *Journal* has in 1998 been re-launched as a specialized medical *Journal* thus becoming the Medical Journal of the Islamic World Academy of Sciences.¹⁵

The Academy Conferences represent open forum at which experts meet and discuss a particular topic, with the aim of arriving at a common understanding of that topic and formulating core policies that can help developing countries overcome their development difficulties. The conferences are also intended to be educational for participants, and focal points through which specialized organizations can forge long-term co-operation links. The Academy has organized almost fifteen conferences so far on different scientific topics.¹⁶

2 Islamic Organization for the Medical Sciences (IOMS)



IOMS Headquarter

Introduction

IOMS stands for *Islamic Organization for the Medical Sciences*. Its president is Dr. Abdul Rahman Al-Awadi. It has its Head Quarter at Kuwait. It is a non-governmental, non-profitable, charitable organization having no political overtures of any kind, keenly interested in promoting the health standards of the humankind through collaborative activities in Islamic countries as well as Muslim communities throughout the world, focusing on

Medical Ethics, Heritage, Healthy Lifestyles and Herbal/Traditional Medicine. It was established in the year 1984 and since then myriad of activities have been conducted. ¹⁷The IOMS has emerged to adopt Islamic medicine which is characterized by viewing man in his capacity as Allah's deputy on earth and considering him as one indivisible whole: body, soul, and spirit. It is a type of medicine that derives its teachings and practices from Islamic Sharia and abides by its provisions of what is permissible and what is prohibited and the grey area between the two. It touches upon everything related to man's health in a clear and logical language, whether about diet or drug which is almost free from side effects. The idea was nurtured in Kuwait and embraced by its good people. Thus Kuwait was the base and point of departure for this great project. Right from the start, the aspirations for the organization transcended limited local effort or regional confinement. His Highness the Amir of Kuwait extended his kind patronage to this organization and encouraged its establishment. Hence, the Amiri Decree No.18 for 1984 that set the idea of the ground and the Islamic Organization for Medical Sciences emerged into full existence to launch unswerving efforts in nurturing the tree of medical sciences that had ceased to bear any fruit through long negligence. The tree of the Islamic Organization for Medical Sciences that took root in Kuwait is beginning to bear fruit with its achievements and propagation of the idea in the Arab, Islamic and even non-Islamic countries. The idea has been well received in the East as well as in the West, and Islamic conferences are being held here and there raising the Islamic voice to be heard in international and universal quarters, and organizing man's relationships with his God and his environment, and holding high the banner of Arabism and Islam: "The scum is cast away, but that which is of use to man remains behind. Thus Allah coins His parables".¹⁸

AIMS AND OBJECTIVES OF IOMS

The IOMS aims to achieve the following:

1. To survive the doctrines of the Islamic Religion relating to the treatment of and protection against various physical and psychological ailments. The Organization also aims to revive Islamic heritage in the domain through a re-reading of researches and studies carried out by the pioneer Muslim physicians in the light of modern technological advances in an attempt to find scientifically based applications of these studies for the service of mankind.
2. To encourage research workers in the field of Islamic medical sciences and concert medical and juristic viewpoints with a view to reach a common ground on controversial medical and legal issues in the application of recent medical findings and providing alternative drugs and methods of treatment to those prohibited in Islam.
3. To co-operate with national and international organizations and societies adopting the same-purpose of IOMS and help them propagate their vocation in the best possible way, and to encourage the formation of new centers and societies with similar aims, doing whatever is necessary to get them join the IOMS.
4. To establish health centers for the needy Muslims in the world.
5. For enlightening the young Muslim generation, to seek and link the educational programmes, particularly in the field of Medicine, to the Islamic heritage and values upon which Islamic civilization, teachings and tolerant Jurisprudence (*Sharia*) have been based.
6. To unify, publish and propagate scientific terms and Islamic moral concepts for the medical professions.
7. To co-ordinate efforts exerted in the field of health services in the Islamic World. ¹⁹

Achievements

During its relatively short duration, the Islamic Organization for Medical Sciences has managed to achieve a number of the main objectives mentioned in its Constitution. Through persistent efforts, it is working hard towards achieving all those objectives for the attainment of the desired aim and the noble purpose to which it aspires.

The realization of the IOMS objectives has been effected at international, Islamic and local levels through conferences, symposia and cooperation with international, regional and local bodies and organizations. The International Conferences on Islamic Medicine held outside Kuwait, which is the permanent base of the IOMS, aims to propagate the idea of reviving the Islamic medical tradition in the countries hosting these conferences.

Another aim is to bring together men of medical sciences, Islamic jurisprudence and the humanities to discuss subjects related to medical jurisprudence and medical innovations through the presented papers and studies. These conferences also discuss applied aspects of Islamic medicine, whether preventive or therapeutic. Almost six international conferences have been held by IOMS.

In first international conference the recommendations called for linking the Islamic nation to its tradition especially in the medical and scientific fields; encouraging the study of the Islamic medical and scientific fields; encouraging the study of the Islamic medical heritage and work on scientific, empirical, clinical and laboratorial research; appealing to the specialists to cast lights of truth on the history of Islamic Civilization; the necessity that

medical education courses should include the study of Islam and of the history of Islamic medicine; the adoption of Kuwait's Project for a Code of Islamic Medical Ethics; and the formation of an Islamic Council for studying scientific innovations.²⁰

The second conference stressed the importance of mapping out the health conditions in the Islamic World and defining its health problems and indicating ways of mutual cooperation among Muslims. It also recommended the study of medicinal plants and the setting up of an Islamic company for the preparation and production of herbal drugs. The conference laid emphasis on verifying and editing traditional works on medicine, preparing a comprehensive index of the manuscripts on Islamic medicine, and establishing a library for books, researches and academic thesis related to Islamic medicine.

It was also recommended that the policy for education throughout all its stages should be of an Islamic nature and should have an Islamic purpose. The conference alluded to the importance of preparing the faithful Muslim physician, attesting medical jurisprudence and clarifying jurisprudential provisions with a view to keeping medical practice within the Islamic legal bounds. Finally, the conference recommended that Kuwait's Project for a Code of Islamic Medical Ethics should be widely published and taught at medical schools and that the oath proposed in this Project should be approved and adopted.²¹

The Third Conference on Islamic Medicine assumed a special importance after the Islamic Organization for Medical Sciences (IOMS) had taken its final legal shape and started full-swing work in accordance with its defined aims and constitution. The importance of this Third Conference was also due to the fact that it was held, for the first time, outside Kuwait which had

initiated these Islamic scientific meetings. Meanwhile, interest in the subject of Islamic medicine had been growing in several places, which meant that what had been sown in the soil of Kuwait was beginning to bear fruit. The Third International Conference on Islamic Medicine recommended the compilation of a traditional medical dictionary containing full information about the most outstanding Muslim men of medicine; showing ways of benefiting from medicinal plants and herbs through seminars; and working out programmes to find facts about youth problems and difficulties with a view to solving them for safeguarding the future of the Islamic nation. The conference stressed the importance of bolstering the efforts made by the IOMS especially in the fields of writing and translation within its spheres of interest, and of offering study courses in the specialism mostly required by the Islamic world.

The Third Conference did not neglect, in its concluding recommendations, setting on record deep appreciation for the efforts made by Kuwait: Amir, government and people, towards adopting the IOMS, issuing its laws and regulations as well as the special decree of its constitution, and supporting its activities.²²

The Islamic Organization for Medical Sciences (IOMS), in collaboration with the Islamic Education, Science and Culture Organization (ISESCO) and the World Health Organization, held its Sixth International Convention for Islamic Medicine under the title: "Drugs, Psychologically harmful Substances and Smoking: A threat to Future Generations, during 1998, in Istanbul, Turkey." The participants have approved the following General Principles:

1. Physical and mental health is a blessing from God Almighty. Any threat or harm caused to it is liable to exact a high price.

Accordingly, the protection of humanity against any harmful or disabling substances is a paramount Islamic duty.

2. Addiction to intoxicants, drugs, tobacco and other psychologically harmful substances, in all its forms, has today become a world-wide problem, with not a single country being immune from it. Muslim countries have a duty be at the front of the international effort to prevent this epidemic and protect present and future generations against it.
3. The many dangers that threaten humanity as a result of this problem are far greater than many people, including its victims, can imagine. This fact calls for effective education, based on proper scientific methods and approach.
4. Muslim countries, in particular, should be at the forefront in fighting this epidemic, guided by the Quranic principle: "Do not kill yourselves,"²³ and: "Do not with your own hands bring destruction upon yourselves,"²⁴ and the general rule propounded by the Prophet Muhammad (S.A.W.S) that: "Harm should neither be inflicted nor sustained."²⁵ Furthermore, the human mind is the seat of responsibility and accountability, protected by the *shariah*; any violation, invasion or disabling of the mind, in any way whatsoever, is in violation of the *shariah* and contrary to its spirit and aims.
5. Fear of God and the incentive of faith and religious deterrence form, altogether, the first line of defense in this regard, and it should be fortified and strengthened further by all available means.
6. To achieve this goal, all countries must rectify the United Nations conventions on the banning of illegal trade in drugs, and psychologically harmful substances.
7. A factor of success has also been the support given to resolutions passed at the Extraordinary Session of the UN General Assembly, held during 8-10 June 1998, on prevention of illegal drugs, including reinforcement of drugs control and

their progenitors, prevention of money laundering and the reduction of demand for drugs, the elimination of farming of illegal substances and support of alternative development programmes, and the combat of amphetamines. Depending on the particular regional situation, support for the Arab world strategy for the combat of drugs and psychologically harmful substances, would increase the chances of success in prevention and treatment for the Arab population.

8. Prevention will have a better chance of success if it starts with the young and before it is too late. This requires the incorporation of educational material in the school curricula from primary levels onwards, and the training of parents, teachers and instructors. Special procedures must be put in place with such flexibility as to allow the use of religious values, useful customs and traditions in the prevention or treatment processes.
9. Care for future generations dictates that the provision in the mother's womb of a clean and healthy environment. This means more educational and health care for pregnant mothers.
10. The proven success of religious education and instruction in the prevention of drug addiction and the treatment of addicts is in need of greater support and encouragement. More field studies and scientific documentation is required in this area.²⁶

The fourth International Conference on Islamic Medicine was held in Karachi from November 9 to 13, 1986 under the patronage of President Mohammad Zia-Ul Haq of the Islamic Republic of Pakistan and at the invitation of Hakim Mohammad Said, Chairman of Hamdard Foundation. The conference was presided over by the Prime Minister of Pakistan Mohammad Khan Junejo. In its recommendations, the conference stressed the importance of child care in the light of Islamic teachings and called for the issuance of an Islamic Declaration of Child Rights as

they are provided for in the Islamic teachings. There was also a recommendation to protect the youth from the wide-spread harms caused by such prohibited materials as liquors and drugs, and to consolidate Islamic ties within the family as well as within the whole society.

A special attention was given to the spiritual dimension in medical applications and to the necessity of injecting the programmes of medical education with whatever helps to prepare the Muslim doctor to serve Islam and work for the good of humanity. The conference asserted the pioneering efforts made by the IOMS, both locally and internationally, to rid man of the hazards of alcohol and to dispense with it in the manufacture of drugs. The IOMS was also commended on issuing its project for registering and monitoring the quality of pharmaceutical preparations.²⁷

Further the law concerning the safety and good quality of herbal drugs is one of the important achievements of IOMS.

If the trend in the world today is to use drugs prepared and manufactured from medicinal plants and herbs to avoid the side effects of chemical-drug preparations, the accomplishments of Muslims in this field assert their pioneering role.

In collaboration with the WHO (World Health Organization) Regional Office of Eastern Mediterranean, the IOMS has determined the requirements for registering, monitoring and marketing herbal drugs. These requirements guarantee unified conditions and specifications for preparing and manufacturing these drugs. These procedures are meant to make sure that good quality drugs will be available. They are also meant to encourage and develop the herbal drug industry.

Therefore, the herbal drug law has been laid down for guaranteeing the safety and quality of these drugs and submitting their marketing to official control by the concerned authority.

The term "herbal drug" mentioned in the text of the law is defined as "Any preparation whose effective component is derived from a herbal origin and is finally packed by the manufacturer and then marketed to be used for curing and/or preventive purposes."

The law prohibits all forms of dealing in these herbal drugs before they are registered at the concerned authorities. The prohibition covers the whole process of marketing, starting with manufacturing or importing the drug and ending with selling by retail to the consumer, provided that the drug is packed and labelled as an herbal drug.

The law stipulates the required conditions for registering the herbal drug and determines the specifications for its manufacturing explaining the process followed for controlling the elements and preparations as well as the herbal derivation that go into making it. The law also contains regulations for controlling the quality and specifications of the raw materials used the reinforcing herbal ingredients, the effective pharmaceutical properties, etc. in a bid to guarantee the safety and quality of the herbal drugs available for public consumption.²⁸

"The Islamic Guide to Medical Jurisprudence" is one of the publications issued by the IOMS in the framework of its dealing with the Islamic legal aspects of medical practice. The book offers to the reader simplified explanations of what a Muslim patient should do concerning the worships he has to perform. The body has been classified according to its organs and the diseases that

may attack each of them with notes about the symptoms of these diseases and about ways of curing them through oral, anal or injectional means. This is followed by giving the Islamic legal opinion about each case in a clear and simple language. Legal terms which might prove difficult to understand by the layman are deliberately avoided. The first part of the Guide deals with the digestive system in the human body and diseases it is liable to suffer from.

The IOMS was keen to make it clear that the Guide is not an alternative for contacting learned men of religion and asking for their advice. It only helps those who cannot do so for one reason or another.

These provisions should be known to both the Muslim patient and to the Muslim doctor so that they may rest assured about the right performance of the enjoined rituals of Islam. The purpose of issuing this Guide in general is to point out the Islamic legal provisions concerning certain exemptions and permissible exceptions in the performance of worships in the case of illness.²⁹

3 International Institute of Islamic Thought (IIIT)



IIIT Logo

Introduction

IIIT stands for the *International Institute of Islamic Thought*. Its founder president was the Martyr Ismail Raji al Faruqi. It is a private, non-profit, academic and cultural institution, concerned with general issues of Islamic thought. The Institute was

established in the United States of America in 1981 (1401 AH). It is independent of local politics, party orientations and ideological biases. The Institute is governed by a Board of Trustees that meets regularly and periodically elects one of its members to serve as President. The headquarters of the Institute are situated in Herndon, Virginia, in the suburbs of Washington DC. Branches and offices have also been established in a number of capitals world-wide in order to carry out the Institute's activities and programs.³⁰The Institute has also signed many agreements of cooperation with many universities, research centers and academic institutions to carry out activities of mutual interests.

The IIT is an intellectual forum working from an Islamic perspective to promote and support research projects, organize intellectual and cultural meetings and publish scholarly works. It has established a distinct intellectual trend in Islamic thought which relates to the vivid legacy of the *Ummah* (Universal Muslim Community), and its continuous efforts of intellectual and methodological reform. This involves a large number of researchers and scholars from various parts of the world.³¹

The International Institute of Islamic Thought is dedicated to the revival and reform of Islamic thought and its methodology in order to enable the *Ummah* to deal effectively with present challenges, and contribute to the progress of human civilization in ways that will give it a meaning and a direction derived from divine guidance. The realization of such a position will help the *Ummah* regain its intellectual and cultural identity and re-affirm its presence as a dynamic civilization.

Aims and Objectives of IIT

The aims and the objectives of the Institute are enumerated on the next page:

1. To serve as a think tank in the field of Islamic culture and knowledge
2. Formulate a comprehensive Islamic vision and methodology that will help Muslim scholars in their critical analysis of contemporary knowledge.
3. Develop an appropriate methodology for understanding the Qur'ān and the Sunnah of the Prophet Muhammad (SallAllahu 'alaihi wa Sallam) and firmly establish them as sources of guidance, knowledge and civilization.
4. Develop an appropriate methodology for dealing with Islamic legacy and contemporary knowledge, in order to draw on the experiences of both past and present, to build a better future for the *Ummah* and humanity at large.
5. Develop an appropriate methodology for understanding and dealing with the present situation of both the *Ummah* and the world in general, in view of contemporary challenges and opportunities.

Achievements

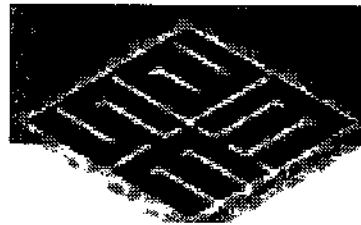
The "*Muslim World Book Review*", a quarterly journal published by the Islamic Foundation, Leicester, U.K., in association with the International Institute of Islamic Thought (IIIT), provides a unique source of information for all who are concerned with development in the Muslim world. It critically analyses views expressed both in the West and the East on a variety of issues related to the Muslim world. Each issue of this journal is rich in information, criticism and suggestions which go a long way to promoting a better understanding of the Muslim world and cementing healthy relations between the East and the West.

The Institute promotes academic research on the methodology and philosophy of various disciplines, and gives special emphasis to the development of Islamic scholarship in contemporary social sciences. The program, which has become known as "Islamization of Knowledge", endeavors to elucidate Islamic concepts that integrate Islamic revealed knowledge with human knowledge and revives Islamic ethical and moral knowledge.³² According to this position, the fundamental premise for establishing an Islamic science is based on the worldview which recognizes that the word of God is revelent in each and every sphere of human activity that God has created this universe with a purpose and He has made man His viceregent for an appointed term. The model and example to be followed is that of the Prophet Muhammad (SallAllahu 'alaihi wa Sallam) .Nature is not to be exploited but should be understood and treated as a trust given to man by the creator. The Institute has also drawn attention to the current "crisis of the Muslim mind," and emphasized the need to build an Islamic system of knowledge. It further called for the development of specific and competitive methodologies to deal effectively and efficiently with the *Qur'an*, the Sunnah, the Islamic heritage and contemporary issues. Indeed, it feels that the Islamic civilization and its intellectual presence could not only provide solutions for the problems of the Muslims, but could also contribute effectively to solve some of the problems of modern civilization in general and provide a moral guidance for mankind.³³

IIIT made its programs possible through the conducting of Conferences and Seminars at international, regional and local levels, during which thousands of scholars from various disciplines have had a chance to meet to discuss and debate issues. Since the seminar on "Islamic thought" in Lugano, Switzerland, in July 1977, in which the decision was made to

establish the International Institute of Islamic Thought, the Institute has conducted more than 150 conferences, seminars and training courses. The proceedings of most of these seminars and conferences were published. It has also supported and participated in several meetings conducted by other institutions and professional associations.³⁴

4 Association of Muslim Scientists and Engineers (AMSE)



AMSE Logo

Introduction

Association of Muslim Scientists and Engineers popularly known as AMSE, the Association of Muslim Scientists and Engineers is a group of professionals, para-professionals and near-professionals in science and engineering and related fields, who are also Muslims by faith. AMSE was founded in the late sixties and was later a constituent organization of the Islamic Society of North America (ISNA) at its founding in the early eighties. AMSE holds its annual conference co-located with the annual convention of ISNA.³⁵ Dr. Khurshid Qureshi is present president of AMSE. He has worked for 20 years with Multi nationals such as General Motors, Ingersoll Rand and Hughes Corporation. He has been highly recognized by his business and peers and awarded with entrepreneur of the year and emerging venture awards. In 1980s he advised the Government of Pakistan on improving Science & Technology education and to develop a strong industrial base.³⁶

Aims and Objectives of AMSE

The aims and objectives for which the Association of Muslim Scientists and Engineers (AMSE) is organized are:

1. To channel the talents of Muslim scientists and engineers in providing Muslim individuals and communities assistance and guidance in all spheres of human activity.
2. To provide encouragement, guidance and assistance to Muslim scientists and engineers in their education and careers.
3. To improve the distribution and dissemination of technical information and Islamic knowledge through journals, publications, meetings and similar medias.
4. In general, to carry out any and all activities those are strictly scientific, educational, religious, cultural and charitable in accordance with Islamic teachings.³⁷

5 Islamic Educational, Scientific and Cultural Organization (ISESCO)



ISESCO New Headquarters

Introduction

ISESCO, Islamic Educational, Scientific and Cultural Organization is a specialized³⁸ international organization working within the framework of the Organization of the Islamic Conference, specializing in the fields of education, science, culture and communication. It has its headquarter at Rabat, capital city of the kingdom of Morocco.³⁹ The Governments of the Member States:-

1. Believing that Islam, a religion of peace and tolerance, represents a way of life and a spiritual, human, moral, cultural and civilizational force which made, and is still making, constructive contribution towards the shaping of the Islamic World and the development of human civilization.
2. Responding to the expectations of the Member States and the hopes of the Islamic Ummah in achieving cooperation, solidarity, progress and prosperity within the framework of joint Islamic action.
3. In anticipation of the challenges faced by the Member States in the educational, scientific, cultural and communication fields, and being aware of the importance of such fields in achieving development, progress and prosperity, without neglecting the Ummah's glorious heritage.
4. Being aware of the close bonds which unite the peoples of the Islamic World through the unity of civilization and the shared spiritual, moral and cultural values, and seeking to encourage civilizational interaction and promote these shared civilizational, cultural and intellectual bonds.
5. Activating the principles of solidarity, mutual assistance and equality to reinforce cooperation among the Member States and thereby promote education, science, culture and communication through all appropriate means.⁴⁰

Aims and Objectives of ISESCO

The objectives of ISESCO include the following:

1. To strengthen, promote and consolidate cooperation among the Member States and consolidate it in the fields of education, science, culture and communication, as well as to develop and upgrade these fields, within the framework of

the civilizational reference of the Islamic world and in the light of the human Islamic values and ideals.

2. To consolidate understanding among peoples inside and outside the Member States and contribute to the achievement of world peace and security through various means, particularly through education, science, culture and communication.⁴¹
3. To publicize the correct image of Islam and Islamic culture, promote dialogue among civilizations, cultures and religions, and work towards spreading the values of justice and peace along with the principles of freedom and human rights, in accordance with the Islamic civilizational perspective.
4. To encourage cultural interaction and to support the aspects of cultural diversity in the Member States, while preserving the cultural identity and protecting the independence of thought.
5. To consolidate complementarity and coordination among the specialized institutions of the Organization of the Islamic Conference in the fields of education, science, culture and communication and among the Member States of ISESCO, and promote cooperation and partnership with the similar governmental and non-governmental institutions sharing the same interest, inside and outside the Member States.
6. To take further interest in Islamic culture, highlight its specificities and publicize its landmarks in intellectual studies, scientific researches and educational curricula.
7. To work for establishing complementarity and correlation among the educational systems of the Member States.
8. To support the efforts of the educational, scientific and cultural institutions for Muslims in non-Member States of ISESCO.⁴²

To achieve the above mentioned objectives, ISESCO uses the following means:-

1. To devise plans and support the appropriate projects in order to develop Islamic culture and publicize it, and to disseminate the teaching of Arabic to non-Arabic speakers all over the world, being the language of the Holy Qur'an.
2. To help universities, research centers and specialized bodies to establish chairs, institutes and departments, develop programmes of action and executive plans and encourage active cooperation between them, in order to serve the objectives of the Organization and respond to the needs of the Member States.
3. To develop the scientific and educational activities of individuals, organizations, associations concerned with the dissemination of the Islamic culture and its foundations and characteristics; support the efforts of Member States in developing programmes of education and technical and practical training; and encourage researchers and inventors from the Member States.
4. To encourage the research work, studies and training needed for the development and upgrading of education in the Member States.
5. To convene conferences, symposia, training sessions, seminars and workshops in cooperation with the Member States as well as national, regional and international bodies and organizations operating in the fields of education, science, culture and communication.
6. To set up mechanisms appropriate for publicizing the true image of Islam and Islamic culture and their contribution to the human civilization.

7. To hold educational, scientific and cultural competitions and forums in cooperation with the specialized institutions in the Member States.⁴³

Achievements

ISESCO made its aims and objectives possible by conducting Conferences and Seminars, during which thousands of scholars from various disciplines have had a chance to meet and discuss educational, scientific and cultural issues of the Islamic Ummah in particular and of the world in general. So far, ISESCO has conducted nine General Conferences. The great achievements of this period enabled it to open up to and maintain a fruitful contact with the educational, scientific and cultural organizations the world over, such as UNESCO. The development of cooperation relations conferred on it a prominent status at the Arab, Islamic and international levels.

In its 8th General Conference (27-29 December 2003 A.D.), OIC Secretary General Dr Abdelouahed Belakziz said, in this regard, that it would suffice to consider the joint projects between ISESCO and UNESCO for us to come to this realization. He also said that, given its experience and high expertise, ISESCO has certainly become a genuine mirror of the Islamic personality and identity of the Muslim world and, indeed, an indispensable reference for international institutions and for everyone interested in the Islamic civilization and culture. The OIC Secretary General also commended the tremendous efforts exerted by the Director General Dr Abdul Aziz Othman Altwaijri of the Islamic Organization. These efforts are such that ISESCO has now become a towering cultural edifice that firmly established the Islamic Arab culture as a main component in

world's culture, reviving its heritage and disentangling it from backwardness and stagnation.⁴⁴

On the level of the prospective strategic planning for an educational, scientific and cultural resurgence of the Islamic world, ISESCO laid down eight major strategies which constitute altogether the strategy of knowledge from an Islamic viewpoint. These strategies have been adopted in ISESCO's General Conference. The strategies are:

1. *Strategy for the Promotion of Education in Islamic Countries* – adopted by ISESCO's Third General Conference, Amman, 1988.
2. *Strategy for the Development of Science and Technology in Islamic Countries* – adopted by the 8th Islamic Summit Conference, Tehran, 1997.
3. *Strategy for Islamic Cultural Action in the West* – adopted by the 9th Islamic Summit Conference, Doha, 2000.
4. *Strategy for benefiting from Muslim competencies in the West* – adopted by the 29th Islamic Conference of Foreign Ministers held in Khartoum in 2002.
5. *Strategy for bringing Muslim Madhahibs closer together* – adopted by the 10th Islamic Summit Conference held in Putra Jaya, Malaysia, in 2003.
6. *Strategy for Development of Biotechnology in the Islamic World* – adopted by the 2nd Islamic Conference of Ministers of Higher Education and Scientific Research held in Tripoli in 2003.
7. *Strategy for management of water resources in the islamic world* – adopted by the 2nd Islamic Conference of Ministers of Higher Education and Scientific Research held in Tripoli in 2003.

8. *Strategy for the Promotion of University Education in the Islamic World* –adopted by the 3rd Islamic Conference of Ministers of Higher Education and Scientific Research, Kuwait, 2006 and the 4th General Conference of the Federation of the Universities of the Islamic World , Kuwait, 2007.⁴⁵

To fulfil its objectives, ISESCO has founded three subsidiary organs.

1. ICPSR:- ISESCO Center for Promotion of Scientific Research

ISESCO Center for Promotion of Scientific Research (ICPSR) is a specialized organ under the aegis of ISESCO's General Directorate. The following are the main objectives of the center

1. To promote advanced studies and scientific research in all fields of science and technology for sustainable economic development in the Islamic countries.
2. To provide a permanent forum for the elite researchers from the Islamic world in all disciplines of science to meet each other, exchange knowledge, address common concerns and develop and supervise realistic programmes for achieving excellence in scientific research.
3. To coordinate with individual scientists, research institutions and centers of scientific excellence in the Member States to establish effective scientific liaison among them and to provide necessary advise on all matters related to scientific research.
4. To act as an apex center for collection, collation and dissemination of high quality innovative research results,

scientific knowledge and viable technologies to the Islamic countries.

5. To recognize the prominent researchers in the Islamic countries through the award of international science prizes, awards, medals etc.⁴⁶

2. FUIW:- The Federation of the Universities of the Islamic World

The Federation (FUIW) is a body working within the framework of the Islamic Educational, Scientific and Cultural Organization (ISESCO), specializing in supporting Universities and Higher Education institutions. of the same level in the Islamic World and encouraging cooperation between them.

3. IBEST:- The Islamic Body on Ethics of Science and Technology

The Islamic Body on Ethics of Science and Technology (IBEST) is an ISESCO's body which is entrusted with the evaluation of scientific researches and applications in accordance with the Islamic principles and morals. The mission and main objectives of IBEST are:-

1. Directing the Muslim public opinion as regards the ethical aspects of some very important and crucial issues from the perspective of the Islamic Sharia.
2. Analysing thoroughly the risks involved by scientific and technological progress, with a view to preserving and protecting the identity of Muslim societies. The ultimate aim is to draw up the broadlines that will instruct the relevant scientific entities and raise the awareness of the public as regards these dangers.

3. Contribution towards coordination and exchange of viewpoints among national committees on ethics of science and technology, in connection with Islamic regional issues as well as problems addressed by international committees.
4. Building Islamic consensus on ethical issues related to science and technology, drawing on studies, research works and statistics conducted by the concerned committees and institutions in the Islamic countries.
5. Studying issues on practices related to medicine and biology, particularly as regards artificial insemination, cloning, environmental issues, informatics and other topical, crucial issues, in the light of the Islamic as well as the human ethical norms at large.
6. Urging educational institutions to introduce ethics in their teaching curricula, as part and parcel of the educational and training programmes of basic and higher education, with a view to enabling young scientists to further scientific research, while observing ethical norms and principles.
7. Setting up a database for ethics works that were prepared and published before in the Islamic countries, in particular, and at the international level;
8. Preparing a list of issues whose ethical aspects should be addressed from an Islamic perspective at the present time;
9. Instituting specialized committees to study the ethical aspects of issues which were not studied before or have been addressed and new developments occurred that have made their revision ethically an imperative;
10. Organizing international conferences to discuss contemporary ethical issues initially analysed by the committee;
11. Introducing ethics in science as an integral part of educational and training programmes in order to instil in the

student community awareness and responsibility as regards the importance of ethical issues;

12. Adopting creation of ethics' committees to review ethical concerns and research works in the Islamic countries;
13. Conducting a media campaign as well as publishing guidelines, various analytical studies, simplified books and articles, to raise awareness and promote general consensus on ethical standards.⁴⁷

ISESCO is publishing a paper namely "*Islam Today*." It is almost a daily publication of ISESCO. It provides immediate information of the Muslim world issues. The organization has also published almost 34 books on different scientific issues. The titles of these books are:

1. *ISESCO Guide for the Incorporation of Reproductive Health and Gender Concepts into Islamic Education Curricula*
2. *New Muslims*
3. *Renewable Energy Technologies for Developing Countries*
4. *Human Genome Social and Ethical Implications*
5. *The Languages of The Prophets and the Sources of the Divine Messages, Moses and Aaron - Jesus - Mohammad (Peace and Blessings Be Upon Them)*
6. *Islam and the West*
7. *The life of the Prophet*
8. *The Islamic Architecture and its Specificities in Teaching Curricula*
9. *Architects of the Scientific Thought in Islamic Civilization Hallmarks from the Biographies of Muslim Scholars in Various Ages*
10. *The Islamic World and the Sustainable Development*
11. *Basic needs for women Education*
12. *How holy is PALESTINE to the Muslims?*

13. *White book on Dialogue among Civilizations*
14. *An Analytical Study on Problems and Issues of Transfer of Scientific Research Results To The Production Sector*
15. *Islam as I came to know it, a religion of mercy and peace*
16. *Strategy of Islamic Cultural Action in the West*
17. *ISLAM : what it is*
18. *Political Education in Islam*
19. *ISLAMIC 'Waqf Endowment' Scope and Implications*
20. *Ethical Implications Of Human Embryo Research*
21. *Gene therapy The state of the art*
22. *Dialogue from Islamic Point of View*
23. *Parental Education in the Islamic World*
24. *Islam between Truth and False Allegations*
25. *Environmental studies some problems analyzed from the islamic point of view*
26. *A Study on Environmental Issues with Reference to the Qur'an and the Sunna*
27. *Islamic Perception of Child-Oriented Information*
28. *Reproductive health in islam*
29. *Water Resources Management*
30. *Future Prospects of Muslim-Western Dialogue*
31. *Towards A Sound Awakening*
32. *Sculpture and the making of statues from the islamic point of view*
33. *Al-QODS Al Shareef*
34. *A selected collection of drawings by children from the islamic world*

These books discuss current approaches to the problems of the world and every issue is explained under Islamic perspective.

6 Muslim Association for the Advancement of Science (MAAS)

Introduction

MAAS is the short form for the *Muslim Association for the Advancement of Science*. It was formed in 1983 for cultivating thinking Islamically about science and its related issues and ideas among working scientists. M. Zaki Kirmani was its founder Secretary .⁴⁸ The chief source of income of the MAAS is in the form of donations given by the philanthropists and its well-wishers. Amount received from the fees of different categories of MAAS membership and the sale of their publications also contribute significantly towards the income of the MAAS.⁴⁹

Aims, Objectives and Achievements of MAAS

The Muslim Association for the Advancement of Science (MAAS) has been founded with a view to introducing and strengthening the base of the science in masses in general and in the Muslims in particular by way of presenting it in psychologically acceptable manner and by making it culturally affinitive. In order to achieve its objectives, the Governing Council of the MAAS which is the sole responsible body for the management of its most affairs, takes decisions about its various activities. Some of the important activities undertaken by the MAAS since its inception in 1983 are as follows:⁵⁰

1. Publication of *MASS Journal of Islamic Science* since 1985

Today's science which has currency in the world is Western science. Because of Westoxification, this science shows those philosophical grounds which are categorically unacceptable

before Muslims. Their philosophy, world-view and other social issues are distant different. It is therefore need of hour to evaluate and criticize this type of secular science and produce Islamic perspective explicitly. To fulfill this pressing need of hour the *Muslim Association for the Advancement of Science* started *MAAS Journal of Islamic Science*. Since its publication, it has established itself as a leading scholarly journal devoted to interdisciplinary exploration of the contemporary aspects of Islamic science. It publishes authoritative articles on the history, philosophy and sociology of science from the Islamic perspective, research work on the Islamization of knowledge, and critiques of Western science particularly on its impact on Muslim societies. Its article part is mostly contributed by world's distinguished personalities like *Sayid Husain Nasr, Zaiuddin Sardar, M. Zaki Kirmani, Dr. Rais Ahmad, Dr. Munawwar Ahmad Anees, S. Waqar A. Husaini, Osman Baker, Abdul Hamid A. Sulayman, Abdullah Omar Naseef* etc. The journal has following aims and objectives:

1. Exposing valueless social characteristic of modern Western science.
2. Critical analysis of influences of advantages and disadvantages of modern Western science.
3. Explanation of Islamic science and its importance with critical and descriptive approach.
4. Pondering and thinking on *Qur'ān* and science or *Qur'ān* and Islamic science.
5. Multiplication of modern knowledge under Islamic world-view
6. Comparison and contrast between scientific and Islamic advances.
7. Study of scientific Muslim heritage.

8. Discussion for reconciliation among groups professing various views and approaches and denominations even in the same science.
9. Publish book reviews for aim related books.
10. Dissemination of science and Islamic science news from all over the world.
2. Publication of Journal *Ayat*

The *Centre for Studies on Science*, Aligarh in collaboration with the *Muslim Association for the Advancement of Science* started *Ayat* in Urdu language for Urdu speaking people. Its objectives and targets are same as that of MAAS journal of Islamic science. However, the difference is only that *MASS Journal of Islamic Science* is in English language while as *Ayat* is in Urdu.

3. Publication of *MAAS Newsletter* since 1988.

It is a four page bimonthly publication of MASS. It provides immediate information of MAAS council meetings, thesis submitted, symposiums, conferences, young Muslim scientist awards, best paper awards, MAAS scholarship and other world scientific news.

4. Publication of a quarterly Journal *Chemical & Environmental Research* since 1992.
5. Institution of *Young Muslim Scientist Award* (YMSA) since 1988.
6. Institution of *MAAS Best Paper Award* (BPA) since 1991.
7. Distribution of Scholarship for Science Students from class IX to *M.Sc* & also for *M.Phil/Ph.D* Students.

Distribution of scholarship is prepared for the encouragement of youngsters and felicitation of the toppers of

class X and XII science students. These steps would make a motivating force; it is expected by the members of MAAS.⁵¹

8. Holding Science Orientation -- Workshop.

9. Grants for Research Projects.

10. *International Journal of Life Science*⁵²

Starting in 1993 this biannual journal provides a forum for the publication of original and articulated papers, short communications and review articles of high quality in various areas of life science (pure and applied aspects). The official language of the journal is English. However, a short summary in any other language may also be included if provided by the author.

References and End Notes

¹The Organization of the Islamic Conference (OIC) is the second largest inter-governmental organization after the United Nations which has membership of 57 states spread over four continents. The Organization is the collective voice of the Muslim world and ensuring to safeguard and project the interests of the Muslim world in the spirit of promoting international peace and harmony among various people of the world. The Organization was established upon a decision of the historical summit which took place in Rabat, Kingdom of Morocco on 12th Rajab 1398 Hijra (25 September 1969) as a result of criminal arson of Al-Aqsa Masjid in occupied Jerusalem.

² The Third Islamic Summit Conference, held at Makkah al-Mukarrama, Kingdom of Saudi Arabia in January 1981, decided to establish a standing committee for scientific and technological cooperation (COMSTECH). The Committee was mandated to undertake follow-up-action and implementation of the resolutions of Islamic Conference, to study all possible means of strengthening cooperation among Members States and to draw up programs and submit proposals designed to increase the capability of the Muslim countries in the fields of science and technology.

³ http://www.oic-oci.org/oicnew/page_detail.asp

⁴ *IAS News Letter*, Amman Jordan, Islamic World Academy of Science, 2007, vol.21, no. 35, p.1.

⁵ <http://www.ias-worldwide.org/about.html>

⁶ <http://www.ias-worldwide.org/structure.html>

⁷ UNESCO was founded on 16 November 1945. It is working to create the conditions for genuine dialogue based upon respect for shared values and the dignity of each civilization and culture.

⁸ <http://www.ias-worldwide.org/finance.html>

⁹ <http://www.ias-worldwide.org/mission.html>

¹⁰ <http://www.ias-worldwide.org/vision.html>

¹¹ *IAS News Letter*, *op.cit.*, p.7.

¹² In 1983, the National Science Council of Pakistan and Hamdard Foundation published what was to become a very famous book. The

name chosen by the then editor HAKIM Mohammed Said for the book was "personalities Noble ". The book contained a brief description of the life and scientific contributions of 26 towering figures of the golden age of Islamic. Demand on the book was such that within a few years only a few rare copies were still in existence. Realizing the importance of the book, and appreciating its value a reference, especially to the younger generation in the Islamic world, IAS decided to publish a second revised edition of "Personalities Noble ", in both English and Arabic. IAS Secretariat staff together with the help of Jordan's most senior translators worked on re-editing and revising the Arabic and English manuscript. Some touching-up on the portraits has to be done by an expert for added quality as well. The book has now appeared in a ISO-Pages volume, with the Arabic text on one side and English on the other. IAS hopes to market the book to schools, universities as well as individuals throughout the Islamic world in to generate the interest of the readers in the great Islamic heritage in science and contribute in a very small way the long sought after revival and rejuvenation, of science and technology in Islamic and developing countries.

¹³ <http://www.ias-worldwide.org/book.html>

¹⁴ <http://www.ias-worldwide.org/other.html>

¹⁵ <http://www.ias-worldwide.org/science.html>

¹⁶ <http://www.ias-worldwide.org/seminars.html>

¹⁷ www.islamset.com

¹⁸ www.islamset.com/ioms/synopsis.html

¹⁹ <http://www.islamset.com/ioms/aims.html>

²⁰ <http://www.islamset.com/ioms/firstcon.html>

²¹ <http://www.islamset.com/ioms/2ndcon.html>

²² <http://www.islamset.com/ioms/3rdcon.html>

²³ Al- Qur'ān, 25:68 also 6:151.

²⁴ *Ibid.*, 30:41

²⁵ Al Hajjaj bin Muslim, *Sahih Muslim*, Riyadh, Saudi Arabia, Daru ibn al Jawzi, 2002, Hadith no.2588, p.1349.

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http://www.islamset.com/healnews/smoking/narcotics/final_statement.htm

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- ²⁷ <http://www.islamset.com/ioms/4thcon.html>
²⁸ <http://www.islamset.com/ioms/herbal.html>
²⁹ <http://www.islamset.com/ioms/guide.html>
³⁰ www.iiit.org.
³¹ *Idem*
³² *Idem*
³³ *Idem*
³⁴ *Idem*
³⁵ <http://amseweb.org/default.aspx>
³⁶ <http://amseweb.org/aboutus.aspx>
³⁷ <http://amseweb.org/aboutus.aspx>
³⁸ http://www.oic-oci.org/oicnew/page_detail.asp
³⁹ <http://www.isesco.org.ma/index.asp>
⁴⁰ *Idem*
⁴¹ http://www.oic-oci.org/oicnew/page_detail.asp
⁴² <http://www.isesco.org.ma/index.asp>
⁴³ *Idem*
⁴⁴ *Final Report of ISESCO's 8th General Conference*, p.3-4.
⁴⁵ <http://www.isesco.org.ma/English/strat/index.htm>
⁴⁶ <http://www.isesco.org.ma/ICPSR/index.html>
⁴⁷ http://www.isesco.org.ma/English/Sciences/Ethics/index_menu.htm
⁴⁸ www.cis-ca.org.
⁴⁹ *Mass News Letters*, Aligarh, Muslim Association for the Advancement of Science, 1997, Vol.10, No.6, p. 4.
⁵⁰ *Idem*
⁵¹ *Mass News Letters*, *op. cit.*, May – June 2001, Vol.14, No.3, p. 3.
⁵² *Ibid.*, January – February 1993, Vol.6, No.1, p. 8.