

Iran Science, Research & Technology Achievements since the Islamic Republic Revolution Era – (1979-2018)

Four decades has been passed from when Islamic Republic of Iran established in 1979. In this long period of time, Iran achieves lots of scientific & technological improvements. Iran ranked 39th in 1979 concerning number of published papers in Scopus. This world rank has been improved to 16th in 2017. In the field of Biomedical Sciences, before Islamic republic of Iran revolution, Iran ranked as the 38th countries considering the published papers in Scopus while now it locates as the 17th country. Medical education has been dramatically improved in terms of both quantity and quality, especially when the medical education has been integrated into the health services by establishing the Ministry of Health & Medical Education. Before Islamic Republic of Iran Revolution, only 250,000 students were active in Iranian universities while now 5 million students are involved with higher education in Iran. Number of universities has been improved from 20 in 1979 to more than 2500 in 2017. Only within the Ministry of Health and Medical Education, more than 70 Universities of Medical Sciences are established and now actively accepting students, with more than 19,000 faculty members and 400,000 students. Not only the quantity of university faculty members has been increased, but also the quality of their ranks have been also improved as now many of them are full professors or associate professors. Now the country has about 51 percent highly cited biomedical scientist based on Essential Science Indicators (ESI) ranking system while this number was zero in 1979 ^{1,2}.

Many new specialties and post graduate courses and degrees have been set up. In 1979, only 6000 medical specialists were actively working in Iran, that 68% of them were based in capital city of Tehran. Now 78,000 General Practitioners, 36,000 Medical Specialties, 24,000 Dentists, 19,000 Pharmacists and many paramedical specialists are working in Iran. Before Islamic Republic of Iran Revolution, none of Iranian universities has been ranked in the world wide universities ranking systems. Hopefully now more than 18 Iranian universities are ranked within first 500 world universities. Only 50 Iranian universities are ranked within Essential Science Indicators research ranking system which 15 are medical universities. Some of universities, like Tehran University of Medical Sciences are now ranked as the 99th in the world under the Pharmacology and Toxicology discipline. In some fields, Iran has achieved brilliant world ranks, for example, Iran is within 5 top countries in the field of Stem Cell researches, the 2nd country regarding Bone Marrow Transplantation, it is within the first 10 countries regarding Nanotechnology, Biotechnology and Infertility treatments in the world. Now Iran is the 1st country in the Middle East and also among Islamic countries either in terms of the number of published papers or considering number of paper citations in Scopus or ISI. Based on www.science-metrix.com company report, published papers growth of Iran in Clarivate Analytics Web of Science database was 11 times more than the World average growth rate. Now Iran has more than 4 million citations in Scopus while this was about just 4000 in 1979. Iran publishes more than 400 biomedical scientific journals which more than half of them are indexed in worldwide reputable databases. More than 12,000 academic books were published in the field of Medical Sciences. About 800 biomedical research centers has been established, that many of them are WHO collaborative centers ^{2,3}.

All health indices, the quality of life and life expectancy have been improved significantly. In the field of technology, the number of knowledge-based companies in Health has been grown up to 1100 companies ⁴.

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