

Editorial

## Defence Science Journal: Saga of Seventy Years of Publication

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India after independence in 1947, formed Defence Science Organisation (DSO), in 1948 under the stewardship of Prof (Dr) DS Kothari as its first Scientific Advisor to Raksha Mantri (Minister of Defence) (SA to RM), to tackle basic Defence R&D related problems. The DSO Science Policy Board, at the beginning of 1949, approved the publication of a journal exclusively devoted to Defence science. At the time of starting, Dr Kothari spelt out the scope and objectives of Defence Science Journal (DSJ) as follows:

*“Its objective is to stimulate study and research in science, fundamental and applied, in relation to the problems of Defence. It serves to bring to the notice of the scientists in universities and other research institutions the basic problems in Defence science, the work that is being done in this field and its importance and also the role of Defence Science in the progress of science generally. A properly conducted Defence Science Journal will go a long way in creating and sustaining interest amongst the research workers in universities and civil institutions, in Defence Science and Technology.”*

In implementation of this, the first issue of the DSJ published in July 1949. Now with the completion of 2020, it has completed seventy-one years of publication. However, the Journal could complete only 70 volumes as it was not published in the 1951. DSJ, started as half-yearly publication, but it was made into a quarterly publication from volume 2 (1952). Initial eight years (1949-1958, vols. 1-8), the DSJ was classified as restricted publication. To widen its scope and circulation, in 1959 it was made an open publication. The restricted issues published in the Journal during 1949-1958 have been downgraded in February 2008. Earlier research papers and short communications are included in the quarterly publication, which is brought out in the months of January, April, July, and October of every year along with occasional supplementary issues till 2006. As the number of papers increased for consideration over the years, in 2007 Journal improved the frequency from quarterly to bi-monthly and started publishing six issues every year and brought out in the month of January, March, May, July, September, and October. It helps in reducing the publishing time of an article from acceptance to publication and overall turn-around to a considerable average 6-months. Now with the online publication platform, most of the issues

were published ahead of schedule month. Since inception, Journal has an Editorial Board, earlier it is dominated with the renowned experts from India, in 2015 Journal started including foreign experts along with Indian as a board member.

The contents of the DSJ were changed from time-to-time. In the initial issues, Journal covered a wide spectrum of defense-related research papers by the scientific, technical, and Service personnel as well as the activities of the Organisation. It published the Proceedings of the Defence Science Organisation, and also current information services like Additions to the Defence Science Library (DSL), abstracts from current periodicals, conferences, symposia conducted by DSO. After becoming an open publication, in 1958 the DSJ neither reported Proceedings of Defence Science Conferences as well as Commonwealth Defence Science Conferences (CDSC) nor published the current awareness lists and related activities of DSL.

Initially, research papers were invited from national laboratories, research institutions, universities, and industrial research establishments embodying the results of their research work which immediately or subsequently may have a bearing on their application to defence problems. As the journal's impact and visibility increase with collaborative publications and indexing in the International databases, Journal starts receiving good number of papers from foreign countries for consideration. DSJ is a multi-disciplinary journal covering a wide gamut of areas in basic and applied science, engineering, and technology. So, efforts were taken to cover major subjects inline with DRDO technical cluster, covering aeronautics, armaments and explosives, biomedical sciences, chemical technology, computer sciences, electronics, fluid dynamics and applied physics, material sciences, etc.

Over the years Journal has expanded its horizon in terms of quality and visibility. Journal has now global visibility, it all started with the publication of research works of foreign authors, then assigning papers for peer-review to a foreign expert, and finally taking their advice as a member of the Editorial Board. DSJ follows the best International practices for Journal publishing and ethical guidelines. Journal is having its own publication policy. Currently, the Journal follows a double-blind, minimum two-stage review after taking the opinion of a minimum

of three independent experts/reviewers. Plagiarism is one of the ethical issues where the Journal has maintained a zero-tolerance level. All the papers initially run through the anti-plagiarism tool and thereafter the comments of peer-reviewers on the novelty and originality of the work also taken into the consideration.

In 2010, Journal started using Open Journal System (OJS) software to further speed-up the editorial and refereeing processes, thereby reducing by half the time taken from submission to acceptance of papers. In 2019 the OJS platform was further upgraded with more features and better security issues. The authors (and also referees) are registering themselves on the Journal's website and are able to track the progress of their papers, online. A rigorous refereeing system is in place with an overall acceptance rate of around 25 percent. Now a paper is forwarded to three or more referees to reduce the time of evaluation and better scrutiny of papers. Journal became a member of CrossRef and Crosscheck, in 2013. CrossCheck helps the Journal, in assigning the Digital Object Identifier (DOI) for each digitally published articles and CrossCheck helped in online plagiarism check of articles through iThenticate. These two features has made a huge impact on the visibility and quality of publications. Journal is now integrated the authors' ORCID to help our research community at large in identifying the individual's work.

Till date, Journal has published more than 3500 research/review items in the strategic research domain. Most of them are from the engineering side. Keeping in tune with the other India government-funded Institutional S&T journals, accessibility of digital copies on the Internet is made for free access. And in the same time

Journal does not charge any article processing/publication charges (APC) from authors. All the published articles since inception are available in the full-text with an advanced search facility at the journal website hosted by the publisher. Free flow of access and quality of content start showing the progressive impact of the Journal in terms of download, views, and citations. According to Journal Citation Report-2019, Defence Science Journal has received an Impact Factor of 0.730 a jump of 20% over 2018, and a similar enhancement received with Scopus-based CiteScore-2019, it's 1.3. Over the year Journal is being covered by more and more indexing and abstracting agencies including Web of Science, Scopus, EBSCO, ProQuest, Dimension, Ulrich's Global Serials Directory, National Digital Library, etc.

Defence Science Journal would like to thank our successive SA to RM, Secy DD R&D, Chairman DRDO, DG DRDO, DSJ Editorial Board members for their consistent support, encouragement, valuable guidance, and motivation in improving the quality of the Journal since 1949. Thanks to our esteemed authors/researchers past and present who have chosen the DSJ to publish their research work over the years and our experts/reviewers who voluntarily peer-reviewed the articles. As an Editor-in-chief, special thanks to our Associate-Editor-in-Chief, Editor, Editorial team member for their tireless effort in maintaining the schedule and presentation of each issue.

Defence Science Journal ensures its reader especially defence scientific community researcher, it will serve you with consistently good quality research article and help in improving good science.

Best wishes,

**Editor-in-Chief**