

वार्षिक रिपोर्ट Annual Report 2019-2020



**National Institute of Science Communication And
Information Resources (NISCAIR)**

Council of Scientific & Industrial Research (CSIR)

Vigyan Sanchar Bhawan

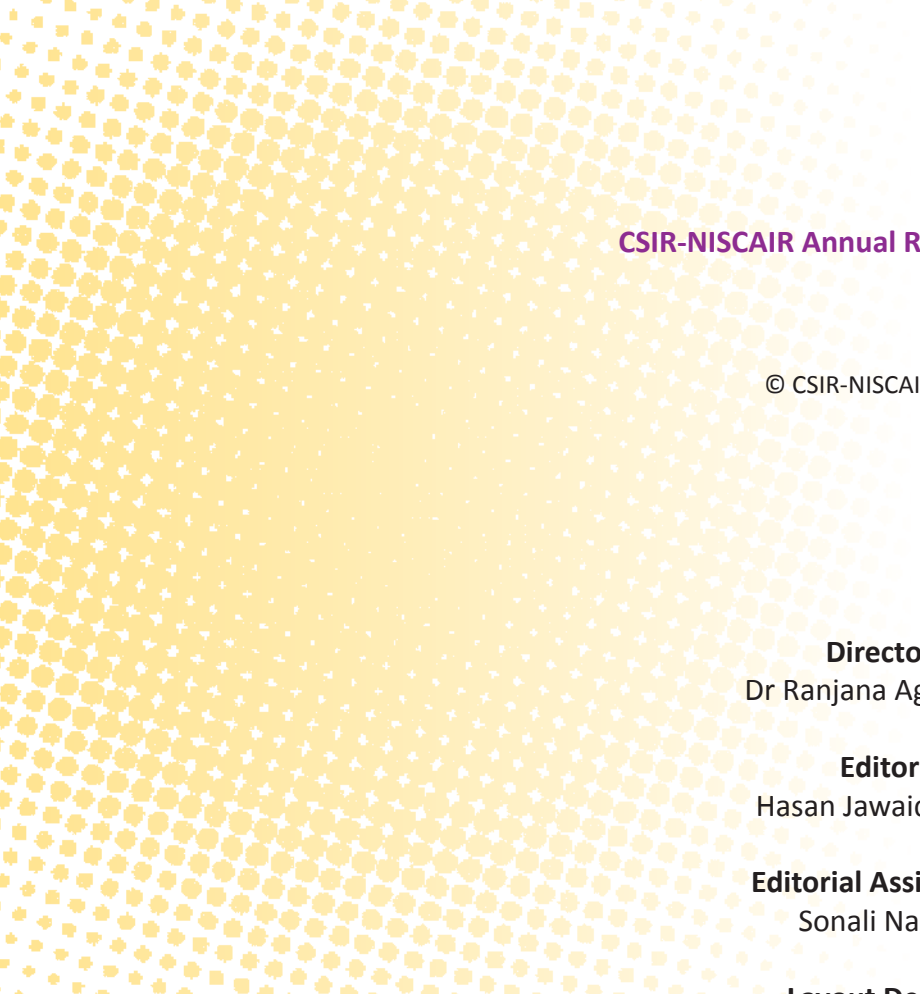
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CSIR-NISCAIR Annual Report 2019-2020

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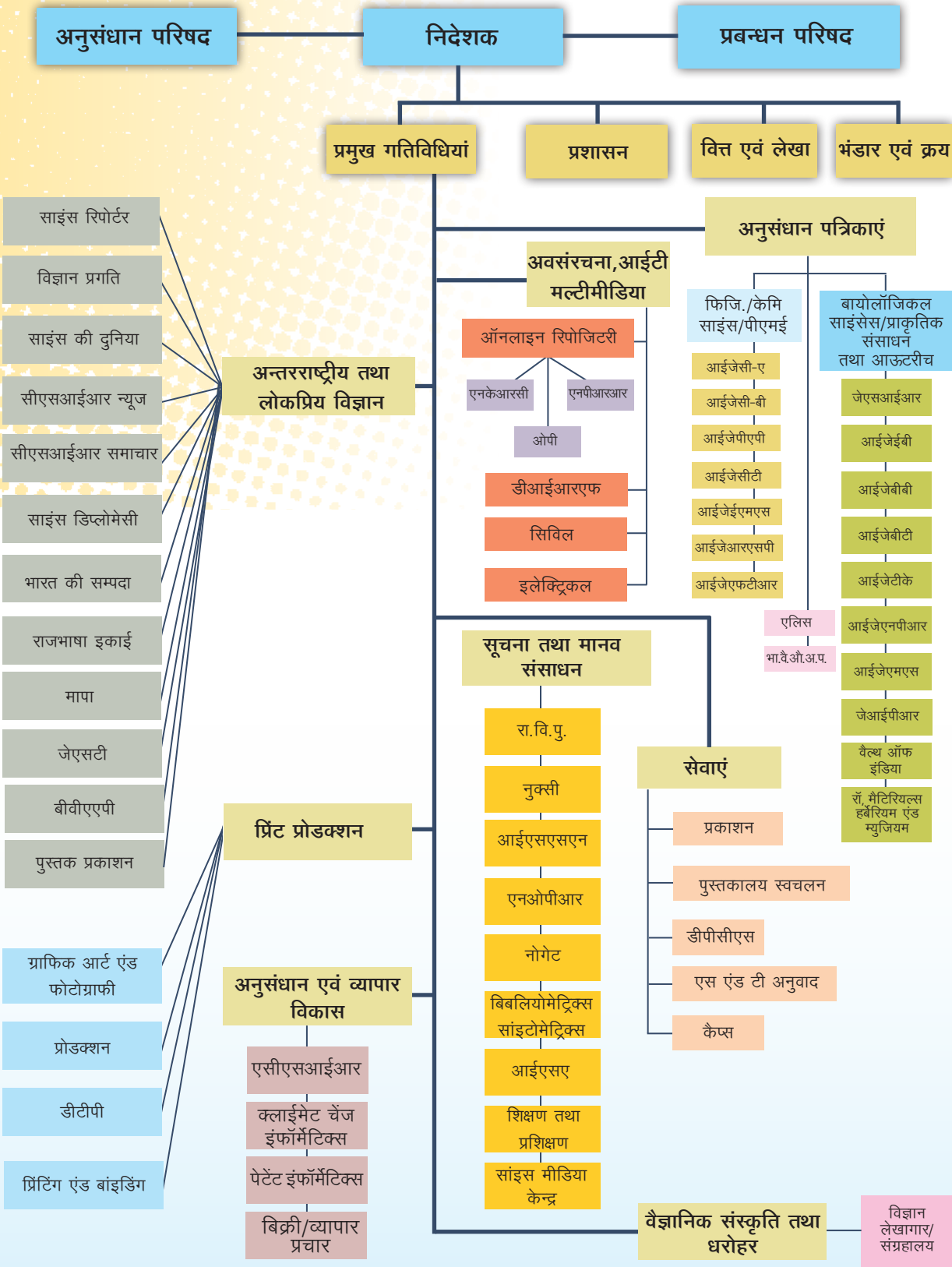
Mission

“To promote communication in science to diverse constituents at all levels, using the most appropriate technologies and provide knowledge services to the scientific community”

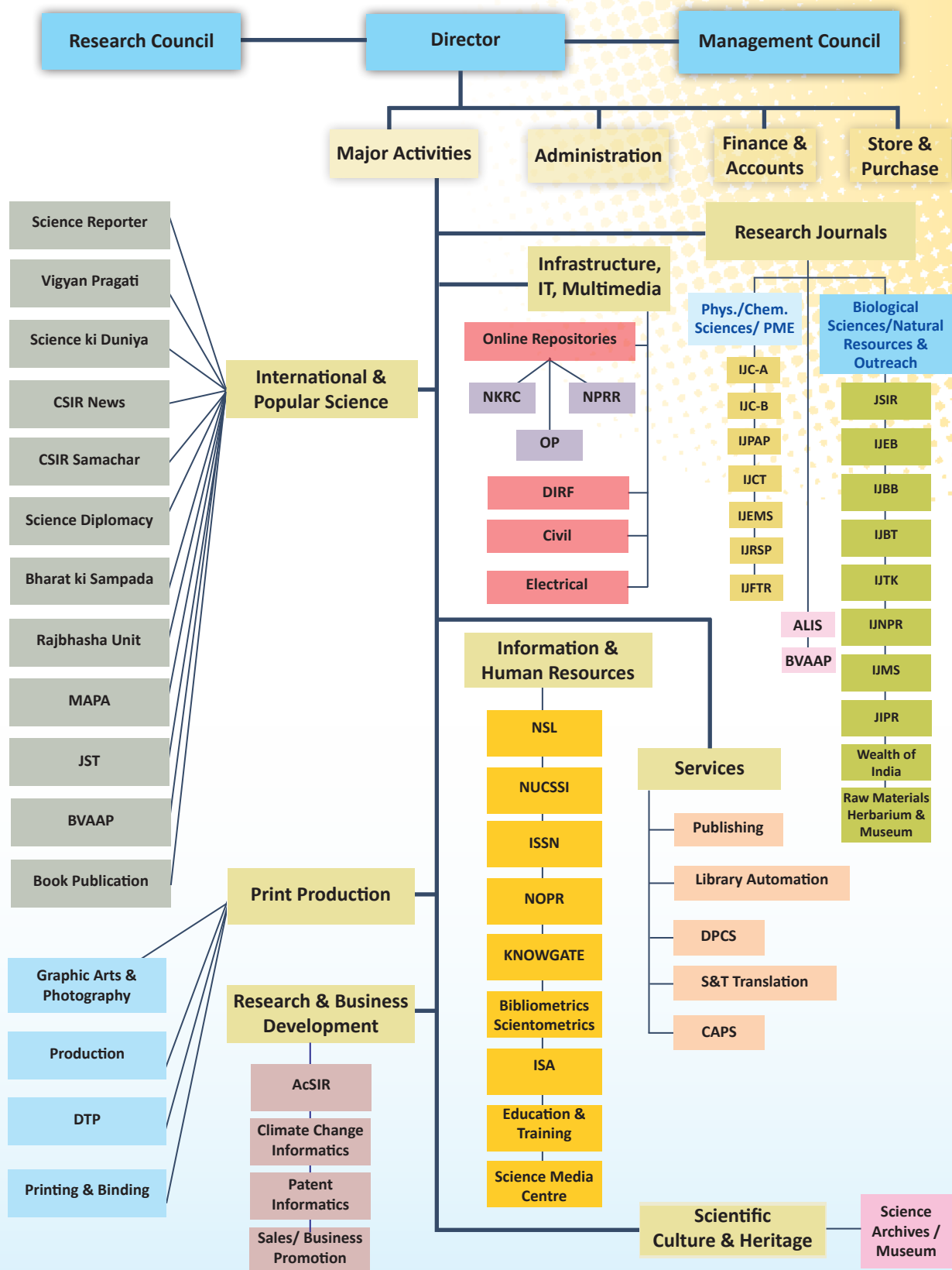
Mandate

- To provide formal linkages of communication among the scientific community in the form of research journals in different areas of S&T
- To disseminate S&T information to general public, particularly school students, to inculcate interest in science among them
- To collect, collate and disseminate information on plant, animal and mineral wealth of the country
- To harness information technology applications in information management with particular reference to science communication and modernising libraries
- To act as a facilitator in furthering the economic, social, industrial, scientific and commercial development by providing timely access to relevant and accurate information
- To develop human resources in science communication, library, documentation and information science and S&T information management systems and services
- To collaborate with international institutions and organisations having objectives and goals similar to those of NISCAIR
- Any other activity in consonance with the mission statement of NISCAIR

सीएसआईआर-निरक्षेयर संगठनात्मक विवरण



CSIR-NISCAIR Organogram



प्राक्कथन

वर्ष 1942 में वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद् की संस्थापना से ही संचार तथा वैज्ञानिक सूचना का विसरण इसका मुख्य उद्देश्य रहा है। सीएसआईआर के संस्थापकों ने यह अनुभव किया कि प्रभावी विज्ञान संचार, वैज्ञानिक प्रौद्योगिक विकास की बेहतर समझ को प्रोत्साहित करने तथा सभी स्तरों पर सूचित निर्णय क्षमता को प्रेरित करता है।

सीएसआईआर-राष्ट्रीय विज्ञान संचार एवं सूचना स्रोत संस्थान (सीएसआईआर-निरुपेक्ष), नई दिल्ली पिछले 65 वर्षों से भी अधिक समय से इस उद्देश्य के प्रभावी क्रियान्वयन के लिए प्रयत्नशील है। यह भारतीय वैज्ञानिक समुदाय को उनके अनुसंधान कार्यों को अपनी 18 अनुसंधान पत्रिकाओं के माध्यम से प्रकाशित करने लिए एक मंच प्रदान कर रहा है तथा अपनी तीन लोकप्रिय विज्ञान पत्रिकाओं तथा पुस्तकों के द्वारा विज्ञान तथा समाज के मध्य अन्तराल को दूर करने में संलग्न है। इसके अतिरिक्त सीएसआईआर-निरुपेक्ष ने अपने विश्वकोशीय प्रकाशनों, सूचना संसाधनों तथा प्रशिक्षण कार्यक्रमों के द्वारा भी ख्याति अर्जित की है। मुझे सीएसआईआर-निरुपेक्ष 2019-2020 वार्षिक रिपोर्ट जो



इस अवधि में संस्थान की प्रमुख गतिविधियों को प्रदर्शित करती है, को आपके समक्ष प्रस्तुत करते हुए बेहद हर्ष हो रहा है। पिछले वर्षों में सीएसआईआर-निरुपेक्ष सम्मेलनों तथा सेमिनारों के द्वारा राष्ट्रीय महत्व के मुद्दों पर चर्चा में संलग्न रहा है तथा एक मंच प्रदान कर रहा है। संस्थान ने वर्ष 2019-2020 के दौरान डिजिटल आर्थिकी के जिस मुद्दे तथा पहलू पर प्रमुख रूप से चर्चा की, वह इन्टरनेशनल कॉन्फरेन्स ऑन 'डिजिटल इकोनॉमी': दी स्पेस फॉर साइंस एण्ड टेक्नोलॉजी इन्फोर्मेशन थी जिसे सीएसआईआर-निरुपेक्ष, विज्ञान तथा प्रौद्योगिकी विभाग (डीएसटी) तथा इन्टरनेशनल सेन्टर फॉर साइंटिफिक एण्ड टेक्निकल इन्फोर्मेशन (आइसीएसटीआई) द्वारा संयुक्त रूप से आयोजित किया गया था। सम्मेलन में विश्व के विभिन्न भागों से आए संचार विशेषज्ञों, नीति निर्माताओं तथा वैज्ञानिकों ने विज्ञान तथा प्रौद्योगिकी सूचनाओं का आदान-प्रदान किया। सीएसआईआर-निरुपेक्ष आईएसएसएन के लिए विश्व भर के 89 से अधिक राष्ट्रीय केन्द्रों के नेटवर्क में से एक है। आइएसएसएन राष्ट्रीय केन्द्र का मुख्य कार्य भारत में प्रकाशित सीरियलों को आईएसएसएन प्रदान करना तथा उन्हें पेरिस में अन्तर्राष्ट्रीय डेटाबेस में पंजीकृत कराना है। वर्ष के दौरान संस्थान को 44वीं आईएसएसएन निदेशक बैठक के आयोजन का दायित्व भी सौंपा गया जिसमें आईएसएसएन अन्तर्राष्ट्रीय केन्द्र के निदेशक, डॉ. गेले वेक्वेट, मुख्य अतिथि थे, साथ में विभिन्न देशों के विशिष्ट गणमान्य व्यक्ति भी इस बैठक में सम्मिलित हुए।

सीएसआईआर-निरुपेक्ष, भारत अन्तर्राष्ट्रीय विज्ञान उत्सव (आईआईएसएफ) का इसकी स्थापना से ही एक अभिन्न अंग रहा है। 5वें आईआईएसएफ का आयोजन 5-7 नवम्बर 2019 को कोलकाता में हुआ था जिसमें संस्थान ने विज्ञान प्रसार के सहयोग से **विज्ञानिका-अन्तर्राष्ट्रीय विज्ञान साहित्य उत्सव** का आयोजन किया था तथा इसमें 200 से अधिक आमंत्रितों, अनुसंधानकर्ताओं, वैज्ञानिकों तथा विद्यार्थियों ने भाग लिया। इस बड़े कार्यक्रम के दौरान विभिन्न कार्यक्रमों का आयोजन किया गया यथा कीनोट व्याख्यान, पैनल चर्चा, वैज्ञानिक सत्र, राउण्ड टेबल मीट, विज्ञान कवि सम्मेलन, विज्ञान कार्टून वर्कशॉप तथा प्रतियोगिताएं। सीएसआईआर-निरुपेक्ष ने अन्तर्राष्ट्रीय विज्ञान पुस्तक मेले का आयोजन भी किया जिसे आईआईएसएफ के दौरान बड़ी संख्या में आगन्तुकों ने देखा। ऑडियो-विजुअल मीडिया के द्वारा विज्ञान को प्रोत्साहित करने के एक प्रयास के रूप में सीएसआईआर-निरुपेक्ष ने विज्ञान प्रसार तथा सत्यजीत रे फिल्म तथा टेलीविजन संस्थान के साथ मिलकर आईआईएसएफ के दौरान इन्टरनेशनल फिल्म फेस्टिवल ऑफ इंडिया

(ISFFI) का आयोजन किया। इस कार्यक्रम के दौरान विभिन्न भारतीय तथा विदेशी फिल्मों का फिल्मांकन किया गया। इसमें प्रसिद्ध फिल्म निर्माता तथा विज्ञान संचारक सम्मिलित हुए।

सीएसआईआर-निस्केयर ने विज्ञान परिषद् गोवा के साथ मिलकर साइंस फिल्म फेस्टिवल ऑफ इंडिया SCI-IFI को आयोजित किया। इस कार्यक्रम के दौरान सीएसआईआर प्रयोगशालाओं की अनुसंधान गतिविधियों पर आधारित लघु फिल्मों का फिल्मांकन किया गया तथा चैलेन्ज इन साइंस कम्यूनीकेशन पर पैनल चर्चा आयोजित की गयी।

स्कूली विद्यार्थियों के मध्य वैज्ञानिक चेतना जागृत करने के लिए सीएसआईआर-निस्केयर ने एक साइंस कार्टून वर्कशॉप तथा प्रतियोगिताओं का आयोजन किया। इसके साथ ही उन्होंने **कम्यूनीकेटिंग साइंस टू चिल्ड्रन** पर पैनल चर्चा का आयोजन भी किया। ये सभी आयोजन राष्ट्रीय पुस्तक न्यास (एनबीटी), नई दिल्ली के सहयोग से 28वें नई दिल्ली विश्व पुस्तक मेला 2020 के दौरान आयोजित किए गए। विभिन्न विद्यालयों के 100 से भी अधिक विद्यार्थियों ने कार्यक्रम में भाग लिया।

पिछले कई दशकों से संस्थान को इसके वैज्ञानिक प्रकाशनों के लिए जाना जाता है। इन 18 अनुसंधान पत्रिकाओं तथा तीन लोकप्रिय विज्ञान पत्रिकाओं के नियमित प्रकाशन के अतिरिक्त इस वर्ष के दौरान सीएसआईआर-निस्केयर ने तीन उच्च स्तरीय प्रकाशन जिसमें **साइंस एण्ड टेक्नोलॉजी फॉर न्यू इंडिया-ग्लिम्पसेज ऑफ फाइव ईयर्स एचीवमेंट्स 2014-2019** जिसमें विज्ञान तथा प्रौद्योगिकी, मंत्रालय पृथ्वी विज्ञान मंत्रालय, विज्ञान तथा प्रौद्योगिकी विभाग तथा जैवप्रौद्योगिकी विभाग के अन्तर्गत आने वाले संस्थानों तथा प्रयोगशालाओं की पिछले पांच वर्षों की उपलब्धियां प्रदर्शित की गयी हैं; **शोकेसिंग अवर साइंस लैब्स-विजिट्स ऑफ डॉ. हर्ष वर्धन**, जिसमें डॉ. हर्ष वर्धन के उनके केन्द्रीय विज्ञान तथा प्रौद्योगिकी तथा पृथ्वी विज्ञान मंत्री के रूप में कार्यकाल के दौरान वैज्ञानिक प्रयोगशालाओं के दौरे तथा अनुभवों का ब्योरा दिया गया है; **सीएसआईआर कम्पैडियम ऑफ टेक्नोलॉजी** जिसमें सीएसआईआर के फास्ट टैक ट्रांसलेशनल प्रोजेक्ट (FTT) के अन्तर्गत विकसित प्रौद्योगिकियों तथा **सीएसआईआर कम्पैडियम ऑफ टेक्नोलॉजिज (6 से भी अधिक टीआरएल)** में सीएसआईआर द्वारा विकसित प्रौद्योगिकियां सम्मिलित हैं।

सीएसआईआर-निस्केयर ने वर्ष 2018 में वैज्ञानिक तथा नवाचारी अनुसंधान अकादमी (AcSIR) के गणितीय तथा सूचना विज्ञान संकाय के अन्तर्गत विज्ञान संचार में स्नातकोत्तर तथा डॉक्टोरल स्तर के पाठ्यक्रम आरम्भ किये हैं। वर्तमान में इसके पीएचडी कार्यक्रम में 35 विद्यार्थी तथा स्नातकोत्तर कार्यक्रम में 14 विद्यार्थी पंजीकृत हुए हैं। सीएसआईआर के विद्यार्थी वैज्ञानिक परस्पर संवाद कार्यक्रम जिज्ञासा के साथ कदम मिलाते हुए सीएसआईआर-निस्केयर ने वर्ष के दौरान विभिन्न केन्द्रीय विद्यालयों के विद्यार्थियों को आमंत्रित किया तथा उन्हें प्रयोगशाला में दौरा करने तथा वैज्ञानिकों के साथ परस्पर संवाद करने का मौका दिया जिससे देश के भविष्य के नागरिकों में वैज्ञानिक दृष्टिकोण विकसित हो सके।

वार्षिक रिपोर्ट 2019-2020 वर्ष के दौरान संस्थान की महत्वपूर्ण गतिविधियों को प्रदर्शित करते हुए वैज्ञानिक सूचना के संचार, प्रचार-प्रसार तथा वैज्ञानिक चेतना को प्रोत्साहित करने की वचनबद्धता को दर्शाती है।



डॉ. रंजना अग्रवाल
निदेशक, सीएसआईआर-निस्केयर

Foreword

Communication and dissemination of scientific information was a major mandate when the Council of Scientific and Industrial Research (CSIR) was established in 1942. The founders of CSIR realised that effective science communication encourages a better understanding of scientific and technological developments promoting informed decision-making at all levels.

The CSIR-National Institute of Science Communication and Information Resources (CSIR-NISCAIR), New Delhi, has been effectively pursuing this mandate of CSIR for more than 65 years. It has been providing a platform for the Indian scientific community to publish their research findings through 18 research journals and also bridging the gap between science and society through three popular science magazines and books. Besides, CSIR-NISCAIR has also made a name for itself through its encyclopaedic publications, information resources, and training programmes. I am, therefore, pleased to present the *CSIR-NISCAIR 2019-2020 Annual Report*, which showcases the prominent activities of the institute during the period.



Over the years, CSIR-NISCAIR has been providing a platform and engaging in deliberations on issues of national significance through conferences and seminars. A major discussion that the Institute promoted during 2019-2020 was on issues and aspects related to the digital economy during the International Conference on “Digital Economy: The space for science and technology information” which was jointly organised by CSIR-NISCAIR, Department of Science and Technology (DST), and International Centre for Scientific and Technical Information (ICSTI). The conference brought together science and technology information and communications specialists, policymakers and scientists from different corners of the world.

CSIR-NISCAIR is the ISSN National Centre – one of a network of over 89 national centres worldwide. The primary functions of the ISSN National Centre include assigning ISSN to serials published in India and registering them in the international database in Paris. During the year, the Institute was assigned the responsibility of organising the 44th ISSN Director’s meeting where Dr Gaëlle Bequet, Director, ISSN International Centre was the chief guest, among other distinguished dignitaries from various countries.

CSIR-NISCAIR has been an integral part of the India International Science Festival (IISF) ever since its inception. During the 5th IISF organised during 5-7 November 2019 at Kolkata, the Institute in association with Vigyan Prasar organised “*Vigyanika*-International Science Literature Festival” which was attended by more than 200 invitees, researchers, scientists and students. During the mega event, various programmes were organised such as Keynote Lectures, Panel Discussions, Scientific Sessions, Round Table Meet, Vigyan Kavi Sammelan, Science Cartoon Workshop & Competition. CSIR-NISCAIR also organised the International Science Book Fair which was attended by a large number of visitors during the IISF. As part of its efforts to promote science through the audio-visual media, CSIR-NISCAIR along with Vigyan Prasar and Satyajit Ray Film and Television Institute organized the International Science Film Festival of India (ISFFI) during the IISF. Several Indian and foreign movies were screened

during the event, which was attended by prominent film makers and science communicators.

CSIR-NISCAIR also collaborated with the Vidnyan Parishad Goa to organise the 5th edition of the Science Film Festival of India, SCI-FFI 2020 during 15-18 January. During the event, short films based on the research activities in CSIR labs were screened followed by a panel discussion on “Challenges in Science Communication”.

To inculcate scientific temper among school students, CSIR-NISCAIR also organised a Science Cartoon Workshop & Competition and Panel Discussion on “Communicating Science to Children” in collaboration with the National Book Trust (NBT), New Delhi, during the 28th New Delhi World Book Fair 2020. The programme was attended by more than 100 students from various schools.

Over the years, the Institute has become known for its scientific publications. Apart from the regular publication of its 18 research journals and three popular science magazines, during the year, CSIR-NISCAIR brought out high profile publications including *Science and Technology for New India — Glimpses of Five Years’ Achievements 2014-19*, showcasing the achievements during the past five years of the institutes and laboratories working under the Ministry of Science & Technology, Ministry of Earth Sciences, Department of Science & Technology and Department of Biotechnology; *Showcasing our Science Labs — Visits of Dr Harsh Vardhan*, a round-up of the visits to scientific laboratories and the experiences of Dr Harsh Vardhan during his tenure as the Union Minister of S&T and Earth Sciences; *CSIR Compendium of Technologies* showcasing technologies developed under CSIR Fast Track Translational (FTT) Projects (1st Tranche); and *CSIR Compendium of Technologies (TRL more than 6)* consisting of the technologies developed by CSIR.

CSIR-NISCAIR introduced the doctoral degree and postgraduate courses in science communication under the Faculty of Mathematical & Information Sciences of the Academy of Scientific & Innovative Research (AcSIR) in 2018. Presently the total number of scholars enrolled in PhD is 35 with 14 students in the MSc programme.

Aligning with the CSIR Student-Scientist Connect Programme *Jigyasa*, CSIR-NISCAIR during the year engaged students from various Kendriya Vidyalayas and provided them with a chance to visit the lab and interact with scientists to develop a scientific attitude among the country’s future citizens.

The *Annual Report 2019-2020* showcases some of the significant activities of the institute during the year illustrating its commitment to communicating and disseminating scientific information and promoting scientific temper.



Dr Ranjana Aggarwal
Director, CSIR-NISCAIR

वर्ष 2019-20 एक नजर में

विज्ञान एवं प्रौद्योगिकी संचार में शोध एवं शिक्षण

सीएसआईआर-निस्केयर ने वैज्ञानिक और नवीकृत अनुसंधान अकादमी (AcSIR), राष्ट्रीय महत्व का एक संस्थान जिसकी स्थापना संसद के एक अधिनियम द्वारा की गई, के अधीन एक शैक्षिक पाठ्यक्रम एवं अनुसंधान कार्यक्रम जो विज्ञान एवं प्रौद्योगिकी संचार (विज्ञान) में पीएचडी (PhD) तथा एमएससी (MSc) तक विस्तारित है, को उद्घाटित किया है। पीएचडी में पंजीकृत अध्येत्ताओं की संख्या 35 तथा एमएससी में पंजीकृत विद्यार्थियों की संख्या 14 है।

उच्च साइटेशन एवं इम्पैक्ट फैक्टर

सीएसआईआर-निस्केयर के अनेक जर्नल अपने संबन्धित क्षेत्रों में भारतीय क्षेत्रों जर्नलों में उच्च इम्पैक्ट फैक्टर की श्रेणी में विद्यमान हैं। सीएसआईआर-निस्केयर वैज्ञानिक समुदाय, विशेषकर भारतीय वैज्ञानिकों अपने को शोध पत्रों के प्रकाशन हेतु एक प्लेटफॉर्म प्रदान करता है।

वृहद संचारित लोकप्रिय विज्ञान पत्रिकाएँ

सीएसआईआर-निस्केयर की लोकप्रिय विज्ञान पत्रिकाएँ- साइंस रिपोर्टर (अंग्रेजी), विज्ञान प्रगति (हिन्दी) तथा साइंस की दुनिया (उर्दू) राष्ट्र में सबसे अधिक संचारित विज्ञान पत्रिकाओं में विद्यमान हैं।

50 मिलियन से अधिक लोगों तक पहुँच

वर्ष 2019-20 के दौरान सीएसआईआर-निस्केयर लगभग 50 मिलियन से अधिक हितधारकों जिनमें पाठकवर्ग, विज्ञान प्रशासक, नीति-निर्धारक, वैज्ञानिक, शोधकर्ता, शिक्षक, विद्यार्थी, विज्ञान संचारक, पत्रकार तथा आमजनता शामिल हैं, तक निम्नांकित के द्वारा अपनी पहुँच बनायी है :

- 20 जर्नल्स, 03 पत्रिका, तथा 03 न्यूजलैटर
- पुस्तकें एवं विश्वकोश
- वैबसाइट तथा एनओपीआर (NOPR)
- सामाजिक विज्ञान प्लेटफॉर्म
- प्रशिक्षण कार्यक्रम
- सम्मेलन, संगोष्ठी तथा कार्यशाला
- जिज्ञासा समेत विद्यार्थी आउटरीच कार्यक्रम
- विज्ञान महोत्सव, पुस्तक मेला तथा प्रदर्शनी
- जन व्याख्यान, डिजिटल डिस्प्ले, मीडिया रिपोर्ट, रेडियो, टीवी कार्यक्रम तथा विज्ञान प्रसार गतिविधियां
- अन्य राष्ट्रीय तथा अंतर्राष्ट्रीय संगठनों तथा कार्यक्रमों के साथ सहयोग, प्रतिभागिता तथा नेटवर्किंग

कौशल-विकास कार्यक्रम

सीएसआईआर-निस्केयर निम्नांकित क्षेत्रों में राष्ट्रीय एवं अंतर्राष्ट्रीय प्रतिभागियों के लिए प्रशिक्षण कार्यक्रम आयोजित करता है:

- विज्ञान संचार
- सोशल मीडिया संचार
- सूचना प्रबंधन
- पुस्तकालय ऑटोमेशन
- वेबसाइट विकास
- प्रिंटिंग प्रौद्योगिकी

अंतर्राष्ट्रीय सहयोग

- 'डिजिटल अर्थव्यवस्था विज्ञान और प्रौद्योगिकी के लिए स्थान' पर सीएसआईआर-निस्केयर, विज्ञान और प्रौद्योगिकी मंत्रालय, भारत सरकार तथा विज्ञान एवं प्रौद्योगिकीय सूचना के अंतर्राष्ट्रीय केंद्र द्वारा संयुक्त रूप से 18-20 सितम्बर 2019 के दौरान एक अंतर्राष्ट्रीय सम्मेलन का आयोजन।
- सीएसआईआर-निस्केयर ने 12 से 15 नवम्बर 2019 के दौरान 44 वें आईएसएसएन (ISSN) निदेशक सम्मेलन का आयोजन किया।
- सीएसआईआर-निस्केयर, आईएसएसएन अंतर्राष्ट्रीय केंद्र का एक राष्ट्रीय केंद्र है। सीएसआईआर-निस्केयर में अवस्थित भारतीय आईएसएसएन राष्ट्रीय केंद्र विश्वस्तरीय 89 राष्ट्रीय केन्द्रों का एक नेटवर्क है।

सूचना संसाधनों पर एक्सेस

- सीएसआईआर-निस्केयर का राष्ट्रीय विज्ञान पुस्तकालय 2,50,000 से अधिक मोनोग्राफ तथा पीरियोडिकल्स के बाउंड वॉल्यूम पर एक्सेस प्रदान करता है।
- नेशनल नॉलेज रिसोर्स कन्सोर्शियम (NKRC), सीएसआईआर-निस्केयर द्वारा समन्वित एक परियोजना सीएसआईआर तथा अन्य वैज्ञानिक विभागों को 3000 से अधिक विदेशी जर्नलों की उपलब्धता सुनिश्चित करता है।
- सीएसआईआर-निस्केयर का नेशनल यूनियन कैटालॉग ऑफ साइंटिफिक सीरियल्स इन इंडिया (NUCSSI) एक पहला ऐसा स्वदेशी डाटाबेस है, जो जर्नल होल्डिंग सूचनाओं के एक्सेस के लिए एक आदर्श उपकरण है।
- निस्केयर ऑनलाइन पीरियोडिकल्स रिपोजिटरी (NOPR) पर अपने शोध अनुसंधानपत्रों, लोकप्रिय विज्ञान पत्रिकाओं, तथा प्राकृतिक उत्पाद संग्रहों को <http://nopr.niscair.res.in> पर होस्ट करता है।

प्रतिष्ठित प्रकाशन

- 'नए भारत के लिए विज्ञान एवं प्रौद्योगिकी - पाँच वर्षों की एक झलक' उपलब्धियां, 2014-19, यह विज्ञान एवं प्रौद्योगिकी मंत्रालय, पृथ्वी मंत्रालय, विज्ञान एवं प्रौद्योगिकी विभाग तथा जैव प्रौद्योगिकी विभाग के अधीन कार्यरत संस्थानों एवं प्रयोगशालाओं की पिछले पाँच वर्षों के दौरान की उपलब्धियों का एक विवरण है।
- विज्ञान प्रयोगशालाओं की प्रदर्शनी - डॉ. हर्षवर्धन द्वारा भ्रमण। यह पुस्तक डॉ. हर्षवर्धन द्वारा केंद्रीय विज्ञान एवं प्रौद्योगिकी मंत्री के रूप में उनके कार्यकाल के दौरान उनके सीएसआईआर प्रयोगशाला भ्रमण के विवरण से संबद्ध है।
- भारत अंतर्राष्ट्रीय विज्ञान महोत्सव 2019 के एक भाग के रूप में सीएसआईआर-निस्केयर ने एक थीम बुक **विज्ञानिका** प्रकाशित की, जिसमें विज्ञान संचार के विभिन्न पहलुओं को कवर किया गया है।

- सीएसआईआर-प्रौद्योगिकी संग्रह का प्रकाशन, इसमें सीएसआईआर फास्ट ट्रैक ट्रांसलेशनल (FTT) परियोजना (पहला खंड) के अधीन विकसित प्रौद्योगिकियों को शामिल किया गया है।
- सीएसआईआर-प्रौद्योगिकी संग्रह (छः से अधिक टीआरएल), इसके अधीन सीएसआईआर द्वारा विकसित प्रौद्योगिकियों को शामिल किया गया है।

विज्ञानवार्ता के द्वारा विचारों की सह-संबद्धता का प्रसार

- विज्ञानिका अंतर्राष्ट्रीय विज्ञान साहित्य उत्सव (ISLF) का समन्वयन, जिसका आयोजन 05-07 नवम्बर 2019 के दौरान भारत अंतर्राष्ट्रीय विज्ञान महोत्सव 2019 के एक भाग के रूप में किया गया।
- इंटरनेशनल साइंस फिल्म फेस्टिवल ऑफ इंडिया (ISFFI) का संयुक्त आयोजन विज्ञान प्रसार, नई दिल्ली, सत्यजीत रे फिल्म एवं टेलीविजन संस्थान, कोलकाता तथा सीएसआईआर-निस्केयर द्वारा 05-07 नवम्बर 2019 के दौरान कोलकाता में किया गया ।
- डिजिटल इकोनॉमी: दी स्पेस फॉर साइंस एंड टेक्नोलॉजी इंफॉर्मेशन पर आईसीएसटीआई-डीएसटी-निस्केयर सम्मेलन, 18-20 सितम्बर 2020
- भारत विज्ञान फिल्म महोत्सव के पांचवे संस्करण का समन्वयन, विज्ञान परिषद गोवा, विज्ञान भारती की एक इकाई द्वारा आयोजित सीएसआई- एफएफआई 2020 (जनवरी 15-18, 2020)
- सीएसआईआर-निस्केयर तथा सीएसआईआर-एम्प्री ने 22-23 अगस्त 2019 के दौरान सीएसआईआर-एम्प्री, भोपाल में दो दिवसीय राष्ट्रीय विज्ञान संचार अभिमुखी कार्यक्रम का आयोजन
- सीएसआईआर-निस्केयर ने राष्ट्रीय पुस्तक न्यास (NBT) के तत्वाधान में 28वें नई दिल्ली विश्व पुस्तक मेला 2020 के दौरान 11 जनवरी 2020 को 'बच्चों के लिए विज्ञान संचार' पर विज्ञान कार्यशाला, प्रतियोगिता एवं पैनल चर्चा का आयोजन ।

Highlights 2019-20

Research & Academics in Science & Technology Communication

CSIR-NISCAIR introduced academic courses and research programme leading to PhD and MSc in Science & Technology Communication (Sciences) under the Faculty of Mathematical & Information Sciences of the Academy of Scientific & Innovative Research (AcSIR), an institution of national importance established by an Act of Parliament. The total number of scholars enrolled in PhD is 35 and 14 students have been enrolled in the MSc programme.

High Citations & Impact Factors

Many CSIR-NISCAIR journals figure among the highest impact Indian journals in their respective fields. CSIR-NISCAIR is providing a platform for the scientific community, especially Indian scientists, to publish their research papers.

Largest Circulated Popular Science Magazines

CSIR-NISCAIR's popular science magazines – *Science Reporter* (English), *Vigyan Pragati* (Hindi) and *Science ki Duniya* (Urdu) – are among the largest circulated popular science magazines in the country.

Reaching out to over 50 Million

CSIR-NISCAIR reached out to some 50 million stakeholders comprising readers, science administrators, policymakers, scientists, researchers, teachers, students, science communicators, journalists, and the general public at large during the year 2019-2020, through:

- 20 Journals, 3 Magazines, and 3 Newsletters
- Books and Encyclopaedias
- Website and NOPR
- Social Media Platforms
- Training Programmes
- Conferences, Seminars and Workshops
- Student Outreach Programmes including Jigyasa
- Science Festivals, Book Fairs, and Exhibitions
- Public Lectures, Digital Display, Media Reports, Radio, TV Broadcasts, and science dissemination activities
- Collaborations, Participation, and Networking with other national and international organisations and programmes.

Skill Development Programmes

CSIR-NISCAIR has been conducting Training Programmes for national and international participants in areas such as:

- Science Communication
- Social Media Communication
- Information Technology
- Information Management
- Library Automation
- Website Development
- Printing Technology

International Collaborations

- The International Conference on “Digital Economy: The space for science and technology information” was jointly organised by CSIR-NISCAIR, Department of Science and Technology, Govt of India, and International Centre for Scientific and Technical Information during 18-20 September 2019.
- CSIR-NISCAIR organised the 44th ISSN Director’s meeting from 12 to 15 November 2019.
- CSIR-NISCAIR is the National Centre of the ISSN International Centre. The Indian ISSN National Centre at the CSIR-NISCAIR National Science Library is one of the networks of over 89 national centres worldwide.

Access to Information Resources

- CSIR-NISCAIR’s National Science Library provides access to more than 2,50,000 monographs and bound volumes of periodicals.
- National Knowledge Resource Consortium (NKRC), a project coordinated by CSIR-NISCAIR, makes available over 3000 foreign journals to CSIR laboratories and other science departments.
- CSIR-NISCAIR’s National Union Catalogue of Scientific Serials in India (NUCSSI) is the first indigenous database that serves as an ideal tool to access journal holding information.
- NISCAIR Online Periodicals Repository (NOPR) hosts online its research journals, popular science magazines & Natural Products Repository at <http://nopr.niscair.res.in>.

High-profile Publications

- *Science and Technology for New India — Glimpses of Five Years’ Achievements 2014-19*, an account of the achievements during the past five years of the institutes and laboratories working under the Ministry of Science & Technology, Ministry of Earth Sciences, Department of Science & Technology and Department of Biotechnology.
- *Showcasing our Science Labs — visits of Dr Harsh Vardhan*. The book contains a round-up of the visits of Dr Harsh Vardhan during his stint as the Union Minister of S&T and Earth Sciences.

- As part of India International Science Festival 2019, CSIR-NISCAIR brought out Theme Book “Vigyanika” containing papers on various aspects of science communication.
- *CSIR Compendium of Technologies* containing the technologies developed under CSIR Fast Track Translational (FTT) Projects (1st Tranche).
- *CSIR Compendium of Technologies (TRL more than 6)* containing the technologies developed by CSIR.

Promoting Cross-Pollination of Ideas through Science Discourses

- Coordinated “Vigyanika — International Science Literature Festival (ISLF)” organised during 5-7 November 2019 as part of India International Science Festival 2019.
- International Science Film Festival of India (ISFFI) was jointly organised by Vigyan Prasar, New Delhi; Satyajit Ray Film and Television Institute, Kolkata; CSIR-NISCAIR and VIBHA during 5-7 November 2019 at Kolkata.
- ICSTI-DST-NISCAIR Conference on “Digital Economy: The Space for Science and Technology Information” during 18-20 September 2020.
- Coordinated the 5th edition of the Science Film Festival of India, SCI-FFI 2020 (January 15 to 18, 2020) organised by Vidnyan Parishad Goa — a unit of Vijnana Bharati.
- CSIR-NISCAIR and CSIR-AMPRI jointly organised a two-day National Science Communication Orientation Programme at CSIR-AMPRI, Bhopal during 22-23 August 2019.
- CSIR-NISCAIR organised a Science Cartoon Workshop & Competition and Panel Discussion on “Communicating Science to Children” in collaboration with the National Book Trust (NBT), New Delhi, during the 28th New Delhi World Book Fair 2020 on 11 January 2020.

सारांश

विद्वता पूर्ण संचार

सीएसआईआर-निस्केयर के उद्देश्यों में से एक वैज्ञानिक समुदाय विशेषकर भारतीय वैज्ञानिकों को ऐसा मंच प्रदान करना है जहां वे अपने अनुसंधान शोधपत्र प्रकाशित कर सकें और सीएसआईआर-निस्केयर इस कठिन उत्तरदायित्व का निर्वाह पिछले 66 वर्षों से भी अधिक समय से अपने अन्तर्राष्ट्रीय स्तर की 18 निम्नांकित अनुसंधान पत्रिकाओं तथा दो सारांशित अनुसंधान पत्रिकाओं के माध्यम से बखूबी कर रहा है।

प्राथमिक अनुसंधान पत्रिकाएं

1. जर्नल ऑफ साइंटिफिक एंड इंडस्ट्रियल रिसर्च (JSIR, मासिक)
2. इंडियन जर्नल ऑफ एक्सपेरिमेंटल बायोलॉजी (IJEB, मासिक)
3. इंडियन जर्नल ऑफ कैमिस्ट्री (IJC-A, मासिक)
4. इंडियन जर्नल ऑफ कैमिस्ट्री (IJC-B, मासिक)
5. इंडियन जर्नल ऑफ प्योर एंड एप्लाइड फिजिक्स (IJPAP, मासिक)
6. इंडियन जर्नल ऑफ बायोकेमिस्ट्री एंड बायोफिजिक्स (IJBB, द्विमासिक)
7. इंडियन जर्नल ऑफ रेडियो एंड स्पेस फिजिक्स (IJRSP, त्रैमासिक)
8. इंडियन जर्नल ऑफ कैमिकल टेक्नोलॉजी (IJCT, द्विमासिक)
9. इंडियन जर्नल ऑफ इंजीनियरिंग एंड मैटेरियल्स साइंसेज (IJEMS, द्विमासिक)
10. जर्नल ऑफ इंटेलेक्चुअल प्रॉपर्टी राइट्स (JIPIR, द्विमासिक)
11. इंडियन जर्नल ऑफ नेचुरल प्रोडक्ट्स एंड रिसोर्सेज (IJNPR, त्रैमासिक)
12. इंडियन जर्नल ऑफ जियो मेरीन साइंसेज (IJMS, मासिक)
13. इंडियन जर्नल ऑफ ट्रेडिशनल नॉलेज (IJTK, त्रैमासिक)
14. इंडियन जर्नल ऑफ बायोटेक्नोलॉजी (IJBT, त्रैमासिक)
15. इंडियन जर्नल ऑफ फाइबर एंड टेक्स्टाइल रिसर्च (IJFTR, त्रैमासिक)
16. एनल्स ऑफ लाइब्रेरी एंड इंफॉर्मेशन स्टडीज (ALIS, त्रैमासिक)
17. जर्नल ऑफ साइंटिफिक टेम्पर (JST, त्रैमासिक)
18. भारतीय वैज्ञानिक एवं औद्योगिक अनुसंधान पत्रिका (हिन्दी) (BVAAP, अर्धवार्षिक)

सारांशित अनुसंधान पत्रिकाएं

19. मेडिसिनल एंड एरोमेटिक प्लांट्स एब्सट्रैक्ट्स (MAPA, द्विमासिक)
20. इंडियन साइंस एब्सट्रैक्ट्स (ISA, पाक्षिक)



सीएसआईआर-निसकेयर की अनुसंधान पत्रिकाएं अन्तर्राष्ट्रीय मानकों का पूर्णतः अनुपालन करती हैं। पत्रिकाओं के सम्पादक मंडल में वैज्ञानिक समुदाय के प्रसिद्ध भारतीय तथा विदेशी सदस्य सम्मिलित हैं। इन अनुसंधान पत्रिकाओं के लिए प्राप्त अनुसंधान प्रपत्रों को भारतीय तथा विदेशी पीयरों द्वारा समीक्षित किया जाता है तथा इनके प्रकाशन हेतु कोई प्रभार नहीं लिया जाता। लेखकों से मौलिकता प्रमाणपत्र लिया जाता है तथा इसके सम्पूर्ण पाठ पर मुक्त सुलभता प्राप्त है।

विज्ञान लोकप्रियकरण - विज्ञान को समाज से जोड़ना

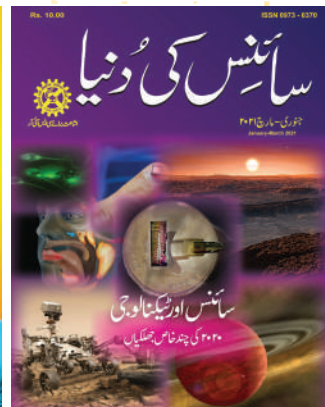
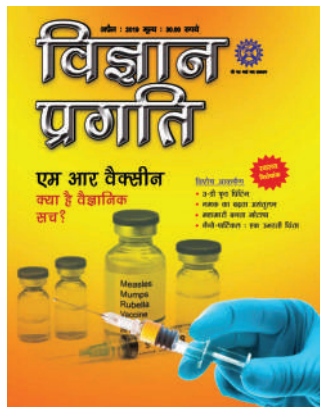
विज्ञान का लोकप्रियकरण तथा भारतीय समाज के एक बड़े भाग को वैज्ञानिक सूचनाओं का विसरण सीएसआईआर का एक मुख्य उद्देश्य है जिसे सीएसआईआर-निसकेयर पूरे मनोयोग से पूर्ण कर रहा है।

सीएसआईआर-निसकेयर ने अपनी तीन सर्वाधिक लोकप्रिय पत्रिकाओं यथा साइंस रिपोर्टर (अंग्रेजी-मासिक), विज्ञान प्रगति (हिन्दी, मासिक) तथा साइंस की दुनिया (उर्दू, त्रैमासिक) के द्वारा विज्ञान को जन-जन तक पहुंचाने का कार्य जारी रखा है।

सीएसआईआर-निसकेयर की ये तीनों लोकप्रिय विज्ञान पत्रिकाएं देश में सर्वाधिक बिकने वाली विज्ञान पत्रिकाओं में सम्मिलित हैं। ये पत्रिकाएं एक समृद्ध वैज्ञानिक यात्रा प्रदान करती हैं जिसमें समसामयिक विषयों पर सूचनात्मक लेख, विज्ञान समाचार तथा महत्वपूर्ण खोज, आविष्कार, वैज्ञानिकों के वर्णन के अतिरिक्त काल्पनिक कथाएं, प्रश्नोत्तरी वर्ग पहेली तथा पहेली जैसी हल्की-फुल्की पाठ्यसामग्री भी प्रकाशित किए जाते हैं। साइंस रिपोर्टर की पाठ्यसामग्री को रोचक बनाने के लिए उसमें बहुत से नए स्तम्भ यथा पजल कॉर्नर, व्हाट्स न्यू, फोटो फीचर, इनोवेटिव माइंड्स, नेचर्स मार्बल तथा सीएसआईआर टेक्नोलॉजी शोकेस भी शामिल किए गए हैं। इसी प्रकार विज्ञान प्रगति में भी कुछ नए स्तम्भ आरम्भ किए गए हैं यथा सीएसआईआर बुलेटिन, विज्ञान समाचार, विज्ञान गल्प, अपना ज्ञान परखिए, सवाल-जवाब, खेल-खेल में विज्ञान, अद्भुत, अद्वितीय-अविश्वसनीय इत्यादि।

सीएसआईआर-निसकेयर दो न्यूजलैटर यथा सीएसआईआर न्यूज (अंग्रेजी, वर्ष 1951 में प्रारम्भ) तथा सीएसआईआर समाचार (हिन्दी, वर्ष 1984 में आरम्भ) का प्रकाशन भी करता है। ये न्यूजलैटर विभिन्न सीएसआईआर संस्थापनाओं के मध्य एक उपयोगी कड़ी के रूप में कार्य करते हैं। ये सीएसआईआर प्रयोगशालाओं की उपलब्धियों को अन्य आर एंड डी संगठनों, विश्वविद्यालयों, विज्ञान तथा प्रौद्योगिकी एजेन्सियों/विभागों, उद्योगों, मास मीडिया तथा अन्य विदेशी एजेन्सियों को प्रदर्शित करते हैं।

ये न्यूजलैटर सीएसआईआर-निसकेयर की वेबसाइट पर ऑनलाइन उपलब्ध हैं।



साइंस डिप्लोमेसी

सीएसआईआर-निस्केयर ने विज्ञान डिप्लोमेसी के अनुकरण के महत्व को पहचाना क्योंकि अधिकतर वैश्विक समस्याओं के लिए वैश्विक समाधानों की आवश्यकता है तथा अन्तर्राष्ट्रीय नीति निर्माण तथा डिप्लोमेसी में विज्ञान की नई भूमिका का सृजन प्रासंगिक है। विज्ञान संचार के प्रयासों को न केवल सहायता देने तथा बढ़ाने के लिए बल्कि अन्तर्राष्ट्रीय सहयोग के द्वारा देश में अनुसंधान तथा विकास को बढ़ाने के भारत के संगठित प्रयासों को सहयोग देने के लिए दृष्टिकोण को ध्यान में रखते हुए सीएसआईआर-निस्केयर ने विज्ञान डाइजेस्ट **साइंस डिप्लोमेसी** के रूप में एक नूतन आरम्भ किया है। **साइंस डिप्लोमेसी** एक त्रैमासिक विज्ञान डाइजेस्ट है। इसका मुख्य उद्देश्य भारत के शीर्ष वैज्ञानिक अनुसंधानों, प्रौद्योगिक प्रौन्नतियों, अन्वेषणों तथा प्रमुख नीति पहलुओं को विविध देशों के साथ साझा करना है। यह विज्ञान तथा प्रौद्योगिकी सहयोग को विस्तीर्ण तथा सशक्त बनाने के लिए एक मंच प्रदान करता है।



ओडियो-विजुअल मीडिया

सीएसआईआर-निस्केयर विभिन्न वैज्ञानिकों मुद्दों/संस्थानों पर ओडियो विजुअल सामग्री एकत्रित तथा निर्मित कर उसे जनसामान्य के लिए सुलभ बनाता है। वित्तीय वर्ष 2019-20 के दौरान निम्नलिखित गतिविधियां आयोजित की गयीं-

1. पूर्व निदेशक डॉ. मनोज कुमार पटैरिया का साक्षात्कार
2. सीएसआईआर-निस्केयर, विज्ञान तथा प्रौद्योगिकी विभाग (डीएसटी) तथा इंटरनेशनल सेंटर फॉर साइंटिफिक एंड टेक्निकल इंफॉर्मेशन (आईसीएसटीआई), मास्को द्वारा संयुक्त रूप से 19-20 सितम्बर 2019 को ए.पी. शिन्दे सिम्पोजियम हॉल, एनएससी कॉम्प्लेक्स में आयोजित इंटरनेशनल कॉन्फ्रेंस ऑन डिजिटल इकोनॉमी: दी स्पेस फॉर साइंस एंड टेक्नोलॉजी इंफॉर्मेशन की विडियो कवरेज
3. सीएसआईआर-निस्केयर की सीएसआईआर स्थापना दिवस 2019 के अन्तर्गत आयोजित खेलकूद गतिविधियों की विडियो कवरेज
4. जिज्ञासा कार्यक्रम के अन्तर्गत आमंत्रित केन्द्रीय विद्यालय के विद्यार्थियों के लिए वैज्ञानिक फिल्मों के निर्माण सम्बन्धी जानकारी की चर्चा तथा संवाद
5. सीएसआईआर-आईजीआईबी द्वारा 20-26 नवम्बर 2019 के दौरान आयोजित प्रशिक्षण कार्यक्रम आयुरजीनोमिक्स एंड इन्टेग्रेटिव मेडिसिन फॉर वेलनेस की विडियो रिकॉर्डिंग तथा पोस्ट प्रोडक्शन
6. 28वें नई दिल्ली विश्व पुस्तक मेले 2020 के वैज्ञानिक कार्यक्रमों की वीडियो रिकॉर्डिंग



सूचना संसाधन एवं सेवाएं

सीएसआईआर-निरुपेक्ष की एक प्रमुख गतिविधि भारत तथा विश्व में जनित विज्ञान तथा प्रौद्योगिकी सूचना का संग्रहण, सुनियोजन तथा प्रचार-प्रसार है। इस कार्यक्रम के अन्तर्गत संस्थान ने विज्ञान तथा प्रौद्योगिकी प्रकाशनों का समेकित संग्रहण प्रिन्ट तथा इलेक्ट्रॉनिक रूप में एवं डेटाबेसों में किया है जिससे समाज के विभिन्न वर्गों का अपरिमित लाभ हो सकता है।

1. रॉ मैटरियल्स हर्बेरियम तथा म्यूजियम

इसमें आर्थिक तथा औषधीय महत्व के पौधों (8000 नमूने), जीवों (190 नमूने), अपरिष्कृत औषधि नमूने (3000 नमूने) तथा खनिजों के (207) नमूनों, हर्बेरियम शीट, फोटोग्राफ तथा उद्घरणों का वृहद संग्रह है। यह संग्रहालय वैज्ञानिकों, अनुसंधानकर्ताओं, विद्यार्थियों तथा जनता के लिए खुला है। आरएचएम के त्रैमासिक न्यूज बुलेटिन के तीन अंक इस अवधि में प्रकाशित किए गए। इस वित्तीय वर्ष में 22 आमजन, विभिन्न विद्यालयों के लगभग 1500 विद्यार्थी तथा 50 शिक्षकों ने भी हर्बेरियम का दौरा किया। अपनी विभिन्न गतिविधियों से रु.3,96,480/- का राजस्व प्राप्त किया गया।



2. राष्ट्रीय विज्ञान पुस्तकालय

सीएसआईआर-निरुपेक्ष का राष्ट्रीय विज्ञान पुस्तकालय देश के सर्वाधिक बड़े तथा पुरातन विज्ञान पुस्तकालयों में से एक है। वर्ष 1964 में स्थापित यह पुस्तकालय ज्ञान का एक विशाल भंडार है जिसमें विज्ञान तथा प्रौद्योगिकी के 2,50,000 प्रलेखों के साथ-साथ राष्ट्रीय तथा अंतरराष्ट्रीय डेटाबेस भी समाहित हैं।



1. पुस्तकालय अर्जन

वर्ष 2019-20 के दौरान 65 पुस्तकें अर्जित की तथा उनकी केटालॉगिंग की गयी। 84 भारतीय तथा 29 विदेशी पीरियोडिकल्स की सदस्यता प्राप्त की गयी। वर्ष 2019-20 के दौरान पुस्तकालय में 2072 पाठक पंजीकृत हुए। वर्ष 2019-20 के दौरान निम्नांकित ई-स्रोत उपलब्ध हैं-

1. एसेन्शियल साइंस इन्डीकेटर्स
2. जर्नल साइटेशन रिपोर्ट (जेसीआर)
3. वेब ऑफ साइंस - एक्सपेन्डेड
4. एसीएस आरकाइव
5. सेग आरकाइव
6. एमरेल्ड आरकाइव
7. स्प्रिंगर आरकाइव
8. आईथेन्टीकेट
9. इंडियन साइटेशन इंडेक्स
10. इंडियन जर्नल कॉम इंडियन स्टैंडर्ड्स
11. स्कोपस



इसके अतिरिक्त राष्ट्रीय ज्ञान स्रोत कन्सोर्शियम के द्वारा राष्ट्रीय विज्ञान पुस्तकालय में 3000 से अधिक विदेशी अनुसंधान पत्रिकाएं उपलब्ध हैं।

2. पाठक सेवा

एनएसएल आम जनता के लिए प्रातः 9.00 बजे से सायं 5.30 बजे तक (सोमवार से शुक्रवार) अध्ययन तथा परामर्शक सेवा उपलब्ध कराता है।



3. आईएसएसएन राष्ट्रीय केन्द्र

सीएसआईआर-निस्केयर भारत में प्रकाशित सीरियलों को आईएसएसएन नम्बर प्रदान करने के लिए आईएसएसएन इंटरनेशनल सेंटर का भारतीय केन्द्र है। यह केन्द्र आईएसएसएन नम्बरों के वैश्विक डेटाबेस का भारतीय रिकार्ड भी प्रबन्धित करता है जिसे आईएसएसएन रजिस्टर कहा जाता है तथा पेरिस में आईएसएसएन इंटरनेशनल सेंटर द्वारा प्रबन्धित किया जाता है।

31 मार्च 2020 तक 24,277 भारतीय पीरियोडिकल्स को आईएसएसएन नम्बर प्रदान किया जा चुका है तथा आईएसएसएन राष्ट्रीय केन्द्र द्वारा 701 आईएसएसएन पंजीकृत किए जा चुके हैं।

4. साइंटोमेट्रिक्स तथा इंफॉर्मेट्रिक्स

राष्ट्रीय विज्ञान पुस्तकालय वैज्ञानिक विशेष तथा संस्थानों के अनुसंधान प्रपत्रों का बिबलियोमेट्रिक/साइंटोमेट्रिक विश्लेषण भी करता है। साथ ही नॉन एससीआई अनुसंधान पत्रिकाओं के इम्पैक्ट फैक्टर की गणना तथा शैक्षिक व अनुसंधान संगठनों के अनुसंधान प्रपत्रों का विस्तृत विश्लेषण भी करता है। वर्ष 2019-20 के दौरान 23 वैज्ञानिक विशेष के लगभग 1775 प्रपत्रों का साइंटेशन एनालिसिस किया गया। वर्ष 2019-20 के दौरान दो प्रतिष्ठित पुरस्कारों का साइंटेशन एनालिसिस किया गया तथा सम्बन्धित रिपोर्ट सीएसआईआर-एचआरडीजी को सौंपी गयी।

5. सीएसआईआर रिसर्च आऊटपुट

एनएसएल में सीएसआईआर के अनुसंधान प्रपत्र, जो वर्ष 2017 के दौरान प्रकाशित हुए थे, की विस्तृत विश्लेषण रिपोर्ट तैयार की। यह रिपोर्ट वर्ष 2018 के सीएसआईआर प्रकाशनों का विस्तृत विश्लेषण प्रस्तुत करने के साथ-साथ देश के अन्य अग्रणी अनुसंधान संस्थानों के एस एंड टी प्रकाशनों के साथ तुलनात्मक रिपोर्ट भी प्रस्तुत करती है।

6. अन्य बिबलियोमेट्रिक/साइंटोमेट्रिक सेवाएं

एनएसएल सीएसआईआर-मुख्यालय के विभिन्न संसदीय तथा लेखा सम्बन्धी पूछताछ हेतु विश्लेषणात्मक डेटा उपलब्ध कराने का कार्य भी करता है। यह अन्य सीएसआईआर प्रयोगशालाओं को भी उनकी आवश्यकता तथा मांग के अनुरूप विश्लेषणात्मक डेटा उपलब्ध कराता है।

7. नेशनल यूनियन केटालॉग ऑफ साइंटिफिक सीरियल्स इन इंडिया

नुक्सि भारतवर्ष में फैले प्रमुख विश्वविद्यालयों के 572 से अधिक पुस्तकालयों, विज्ञान तथा प्रौद्योगिकी संस्थानों, उद्योगों की आर एंड डी इकाईयों, उच्च संस्थानों यथा आईआईएससी, आईआईटी तथा व्यावसायिक संस्थानों के 2,68,169 पुस्तकालय होल्डिंग्स का एक स्वदेशी डेटा संग्रहण है।



ऑनलाइन सूचना संसाधनों पर सम्पूर्ण सीएसआईआर कन्सोर्टियम सुलभता

सीएसआईआर वाइड कन्सोर्टियम एक्सेस टू ऑनलाइन रिसोर्सेज (एनकेआरसी) के अन्तर्गत सीएसआईआर-निस्केयर विश्वस्तर के अनुसंधान तथा विकास पत्रिकाओं तथा डेटाबेसों पर समेकित सुलभता की सुविधा प्रदान कर सीएसआईआर के वैज्ञानिकों तथा अनुसंधानकर्ताओं को प्रतिस्पर्धात्मक उच्च विज्ञान में सहयोग देता है।



प्रलेख अर्जन, प्रति आपूर्ति सेवा

यह सेवा राष्ट्रीय विज्ञान पुस्तकालय के मुद्रित संग्रह तथा भारत एवं विदेशों के अन्य पुस्तकालयों में उपलब्ध अनुसंधान पत्रिका के लेखों की प्रति अनुसंधानकर्ताओं तथा वैज्ञानिकों को उपलब्ध कराता है। वर्ष के दौरान 144 प्रतियों की आपूर्ति की गयी।

पुस्तकालय प्रशिक्षण

राष्ट्रीय विज्ञान पुस्तकालय एक माह तथा तीन माह का प्रशिक्षण 15 पुस्तकालय तथा सूचना विज्ञान विद्यार्थी जो विभिन्न विश्वविद्यालयों तथा कॉलेजों यथा दिल्ली विश्वविद्यालय तथा सूचना विज्ञान विद्यार्थी जो विभिन्न विश्वविद्यालयों तथा कालेजों यथा दिल्ली विश्वविद्यालय, इंदिरा गांधी राष्ट्रीय मुक्त विश्वविद्यालय, मीराबाई पॉलीटेक्नीक इत्यादि के हैं, को दिया जाता है।

अनुवाद सेवाएं

प्रमुख 20 विदेशी भाषाओं यथा जापानी, जर्मन, फ्रांसीसी, चीनी तथा रूसी भाषा से अंग्रेजी में अनुवाद सुविधा उपलब्ध करायी जाती है।

आईटी समाधान

सीएसआईआर-निस्केयर की वैज्ञानिक सूचना प्रचार-प्रसार तथा विज्ञान संचार गतिविधियों को सुदृढ़ तथा आधुनिक आईटी अवसंरचना प्राप्त है। समय की मांग के अनुरूप निस्केयर प्राइमरी जर्नल पर ऑनलाइन एक्सेस (NOPR) तथा लोकप्रिय विज्ञान पत्रिकाएं ऑनलाइन पब्लिशिंग सॉफ्टवेयर (OJS) वेसाइट तथा ब्लॉग तथा सुसज्जित डेटा सेंटर को महत्ता प्रदान की गयी है। वर्ष 2019-2020 के दौरान निम्नांकित मुख्य गतिविधियां आरम्भ की गयीं।

Quick Links	ALIS	AIR	BVAAP	IJBB	IJBT	IJCA	IJCB	IJCT	IJEB	IJEMS	IJFTR
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Communities in NOPR

Discover

Author: Kumar, Anil (100)

Subject: Cotton (304)

Date issued: 2020 - 2021 (5138)

1. निस्केयर की प्राथमिक अनुसंधान पत्रिकाओं तथा लोकप्रिय विज्ञान पत्रिकाओं पर ऑनलाइन सुलभता

2. संपादन प्रक्रिया के स्वचलन हेतु ऑनलाइन पब्लिशिंग प्रणाली
3. निस्केयर तथा आन्तरिक वेबसाइट का प्रबन्धन तथा अद्यतनीकरण
4. सीएसआईआर-निस्केयर डेटा सेंटर में सीएसआईआर-सीआरआरआई, सीएसआईआर-एनपीएल, सीएसआईआर-निस्केयर, सीएसआईआर मुख्यालय, सीएसआईआर-आईपीयू, सीएसआईआर-परीक्षा यूनिट के वेबपोर्टल का प्रबन्धन।
5. आधार आधारित बायोमैट्रिक उपस्थिति प्रणाली (AEBAS)
6. पूर्ण एचडी वीडियो कान्फ्रेंसिंग सुविधा
7. डिजीटल सूचना स्रोत सुविधा (NAUKDIRF) का प्रबन्धन तथा रखरखाव
8. आईटी अवसंरचना विकास तथा प्रबन्धन
9. सुविधा प्रबन्धन सॉफ्टवेयर का विकास/प्रबन्धन
10. आईटी मानव संसाधन विकास

मानव संसाधन विकास

वर्तमान समय की चुनौतियों का सामना करने के लिए विज्ञान संचारक, आर एंड डी कार्मिक तथा पुस्तकालय सूचना विज्ञान व्यावसायियों को प्रशिक्षित तथा तैयार करने के लिए संस्थान के पास समुचित आवश्यक सुविधाएं तथा जनशक्ति है।

सीएसआईआर-निस्केयर द्वारा राष्ट्रीय तथा अन्तरराष्ट्रीय स्तर के प्रतिभागियों हेतु निम्नलिखित प्रशिक्षण कार्यक्रम संचालित किए जाते हैं -

1. विज्ञान संचार
2. सोशल मीडिया संचार
3. सूचना प्रौद्योगिकी
4. सूचना प्रबन्धन
5. पुस्तकालय स्वचलन
6. वेबसाइट विकास

विशिष्ट रूप से निर्मित प्रशिक्षण कार्यक्रम पुस्तकालय तथा सूचना विज्ञान व्यवसायियों के मध्य बहुत लोकप्रिय हैं क्योंकि ये व्यावहारिक प्रशिक्षण पर विशेष ध्यान देते हैं।

वर्ष के दौरान 15,68 लाख रूपए के राजस्व की प्राप्ति हुई तथा 338 प्रतिभागियों को प्रशिक्षित किया गया।



ऑनसाइट प्रशिक्षण कार्यक्रम

सीएसआईआर-निस्केयर विभिन्न संस्थानों की विशेष मांगों के अनुरूप ऑनसाइट प्रशिक्षण कार्यक्रम आयोजित करता है। संस्थान विभिन्न संस्थानों में पुस्तकालय प्रबन्धन तथा डिजीटल पुस्तकालय स्थापित करने के लिए ओपनसोर्स सॉफ्टवेयर तकनीकी समाधान प्रदान करता है।

जिज्ञासा वेबपोर्टल

वर्ष 2019-2020 में सीएसआईआर-निस्केयर ने सीएसआईआर-जिज्ञासा के लिए सफलतापूर्वक वेबपोर्टल का विकास तथा हॉस्टिंग की।

पुस्तकालय प्रशिक्षण

राष्ट्रीय विज्ञान पुस्तकालय ने हिमाचल विश्वविद्यालय, इंदिरा गांधी राष्ट्रीय मुक्त विश्वविद्यालय, मीराबाई पॉलीटेक्नीक इत्यादि के 14 पुस्तकालय तथा सूचना विज्ञान विद्यार्थियों को एक माह तथा तीन माह का प्रशिक्षण प्रदान किया।

एस एंड टी संस्थानों हेतु पुस्तकालय आधुनिकीकरण सेवाएं

सीएसआईआर-निस्केयर ने एस एंड टी संस्थानों के लिए तकनीक सेवाएं आरम्भ की हैं।

अन्तरराष्ट्रीय सहयोग

सीएसआईआर-निस्केयर विज्ञान संचार तथा सूचना विज्ञान के क्षेत्र में कार्यरत है तथा गत वर्षों में बहुत सी अन्तर्राष्ट्रीय सहलग्नता विकसित हुई हैं। वर्ष 2019-2020 के दौरान अन्तर्राष्ट्रीय संगठनों के सहयोग से बहुत-सी गतिविधियां आयोजित की गयीं।

विज्ञानिका - अन्तरराष्ट्रीय विज्ञान साहित्य महोत्सव 2019

सीएसआईआर-राष्ट्रीय विज्ञान संचार एवं सूचना स्रोत संस्थान (निस्केयर) तथा विज्ञान प्रसार ने 05-07 नवम्बर 2019 के दौरान कोलकाता में विज्ञानिका - अन्तरराष्ट्रीय विज्ञान साहित्य महोत्सव का आयोजन किया। यह साहित्य महोत्सव का एक बड़ा कार्यक्रम था जिसमें 200 से अधिक आमंत्रित वक्ता, अनुसंधानकर्ता, वैज्ञानिक तथा विद्यार्थी सम्मिलित हुए।



आईसीएसटीआई-डीएसटी-निस्केयर सम्मेलन डिजीटल इकोनॉमी: दी स्पेस फॉर साइंस एंड टैक्नोलॉजी इंफॉर्मेशन

डिजीटल इकोनॉमी: दी स्पेस फॉर साइंस एंड टैक्नोलॉजी इंफॉर्मेशन पर अन्तरराष्ट्रीय सम्मेलन का आयोजन सीएसआईआर-निस्केयर, विज्ञान तथा प्रौद्योगिकी विभाग, भारत सरकार तथा इंटरनेशनल सेंटर फॉर साइंटिफिक एंड टैक्नीकल इंफॉर्मेशन द्वारा संयुक्त रूप से 18-20 नवम्बर 2019 को आयोजित किया गया।

44वीं आईएसएसएन निदेशक बैठक

सीएसआईआर-निस्केयर ने 12-15 नवम्बर 2019 को 44वीं आईएसएसएन निदेशक बैठक के औपचारिक शुभारम्भ कार्यक्रम का आयोजन किया। डॉ. गेले विक्वेट, निदेशक, आईएसएसएन अन्तरराष्ट्रीय केन्द्र डॉ. एस.के. वार्ष्णेय, प्रमुख, अन्तरराष्ट्रीय सहयोग (द्विपक्षीय), डीएसटी, भारत सरकार; डॉ. जगदीश अरोड़ा, पूर्व निदेशक, सूचना तथा पुस्तकालय नेटवर्क (इंफ्लीवनेंट सेंटर) तथा सलाहकार, नेशनल बोर्ड ऑफ एग्रीडिटेशन; तथा डॉ. ए. जयकुमार विशेष सलाहकार, विज्ञान भारती (विभा), मुख्य अतिथि के रूप में मंच पर उपस्थित थे।

आईएसएसएन अन्तरराष्ट्रीय केन्द्र का राष्ट्रीय केन्द्र

सीएसआईआर-निस्केयर आईएसएसएन अन्तरराष्ट्रीय केन्द्र का राष्ट्रीय केन्द्र है। एनएसएल स्थित यह केन्द्र विश्वभर में फैले 89 राष्ट्रीय केन्द्रों में से एक है। आईएसएसएन के राष्ट्रीय केन्द्र का मुख्य कार्य भारत में प्रकाशित सीरियलों को आईएसएसएन प्रदान करना; पेरिस के अन्तरराष्ट्रीय डेटाबेस में पंजीकृत करना; भारत में आईएसएसएन के प्रयोग को बढ़ाना तथा प्रकाशक एवं आईएसएसएन नेटवर्क सहयोग स्थापित करना है।

साइंस डिप्लोमेसी: बहुविषयी विज्ञान पर भारत का ग्लोबल डाइजेस्ट

साइंस डिप्लोमेसी विदेशी भाषाओं में भारत की वैज्ञानिक उपलब्धियों को प्रकाशित करने का पहला प्रयास है। यह नीति निर्माण तथा नीतिगत सहयोगों में हितधारकों यथा वैज्ञानिक, शिक्षाविद्, वरिष्ठ राजनयिक विज्ञान परामर्शक तथा विशेषज्ञों की संलग्नता तथा सहयोग के लिए प्राथमिकता क्षेत्र निर्धारित करने में सहायता करता है।

विज्ञान आऊटरीच

सीएसआईआर-निस्केयर द्वारा इस अवधि में निम्नांकित कार्यक्रम आयोजित किए गए-

सम्मेलन/कार्यशाला

- विज्ञानिका: अन्तरराष्ट्रीय विज्ञान साहित्य महोत्सव 2019 का आयोजन
- इन्टरनेशनल साइंस फिल्म फेस्टिवल ऑफ इंडिया (आईएसएसएफआई)
- डिजिटल इकोनॉमी: दी स्पेस फॉर फॉर साइंस एंड टैक्नोलॉजी इंफॉर्मेशन पर आईसीएसटीआई-डीएसटी-निस्केयर सम्मेलन
- 28वें विश्व पुस्तक मेले के दौरान कार्यशाला तथा पैनल चर्चा
- साइंस फिल्म फेस्टिवल ऑफ इंडिया, गोवा के पांचवें संस्करण का आयोजन
- सीएसआईआर-एम्प्री, भोपाल में राष्ट्रीय विज्ञान संचार अभिविन्यास कार्यक्रम का आयोजन
- 44वीं आईएसएसएन निदेशक बैठक का आयोजन

संस्थानिक कार्यक्रम

- पृथ्वी दिवस 2019 समारोह का आयोजन
- राष्ट्रीय प्रौद्योगिकी दिवस समारोह का आयोजन
- विश्व पर्यावरण दिवस समारोह आयोजन
- अन्तरराष्ट्रीय योग दिवस समारोह का आयोजन
- गांधी जयन्ती समारोह
- राष्ट्रीय विज्ञान दिवस आयोजन
- अन्तरराष्ट्रीय महिला दिवस व्याख्यान आयोजन

जिज्ञासा के माध्यम से विद्यार्थियों तक पहुंच

वर्ष 2019-20 के दौरान सीएसआईआर-निस्केयर ने 13 जिज्ञासा कार्यक्रम आयोजित किए जिसमें 1551 विद्यार्थी तथा 121 शिक्षक सम्मिलित हुए।



आयोजित कार्यशाला

- नेशनल म्युजियम ऑफ नेचुरल हिस्ट्री (एनएमएनएच), पर्यावरण, वन तथा जलवायु परिवर्तन मंत्रालय के सहयोग से एक दिवसीय कार्यक्रम का 22 अगस्त 2019 को आयोजन। इस कार्यक्रम में लगभग 100 प्रशिक्षु शिक्षकों ने भाग लिया तथा सीएसआईआर-निस्केयर की गतिविधियों की जानकारी प्राप्त की।
- 19 नवम्बर 2019 को अखिल भारतीय आयुर्विज्ञान संस्थान के द्रव्यगुण विभाग के 45 प्रतिनिधियों को भारतीय औषधियों के महत्व, हर्बेरियम नमूनों का महत्व तथा हर्बेरियम तकनीकों की जानकारी दी गयी।

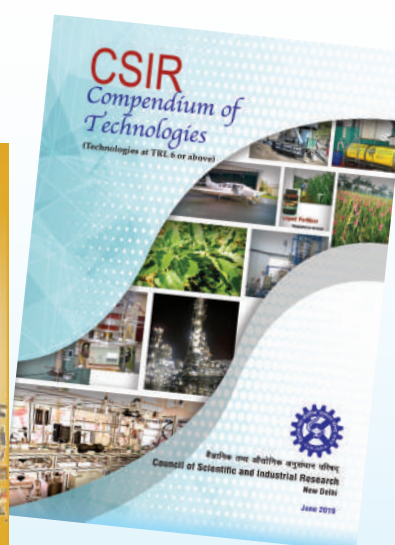
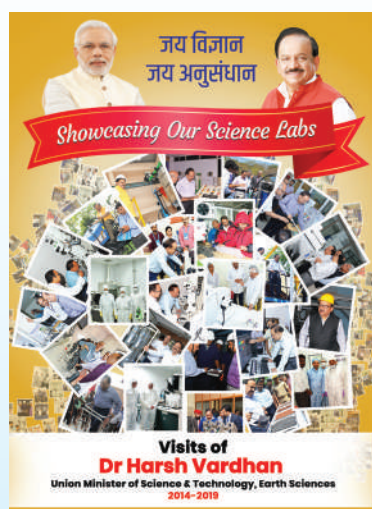
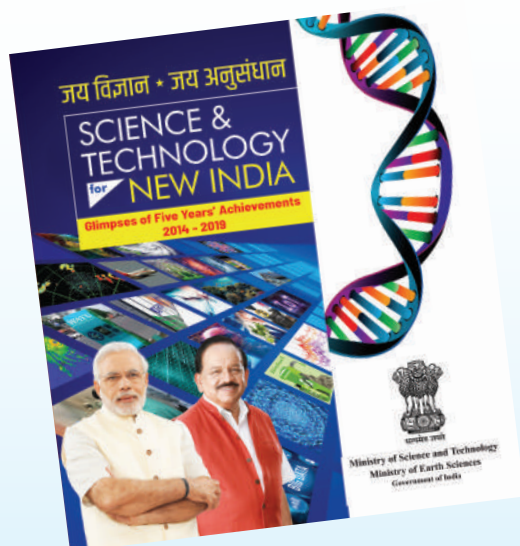
वैज्ञानिक दौरे

- वी एस अंगपुरिया इंस्टीट्यूट ऑफ फार्मेसी, आलमपुर, फरीदाबाद बीफार्मा के चौथे वर्ष के 35 विद्यार्थियों ने अपने 6 शिक्षकों के साथ संस्थान का दौरा किया तथा सीएसआईआर-निस्केयर की गतिविधियों तथा हर्बेरियम म्युजियम की जानकारी ली।
- एसजीटी विश्वविद्यालय के इंडियन मेडिकल सिस्टम (एफआईएमएस) के लगभग 50 विद्यार्थियों तथा संकाय सदस्यों ने 29 नवम्बर 2019 को आरएचएमडी का दौरा किया। विद्यार्थियों को भारतीय औषधियों में हर्ब के महत्व की जानकारी दी गयी तथा हर्बेरियम के संबंध में जानकारी प्रदान की गयी।
- डॉ. रॉबिन सी. एन्डरसन, फूड एंड फीड सेफ्टी रिसर्च यूनिट, साउदर्न प्लेस एग्रीकल्चरल रिसर्च सेंटर, यूएसडीए, टैक्सास ने 29 नवम्बर 2019 को आरएचएमडी का दौरा किया। उन्होंने रॉ मैटिरियल्स म्युजियम के बहुमूल्य संग्रहण की सराहना की।

प्रकाशन

इस अवधि में निस्केयर द्वारा निम्नांकित प्रकाशन जारी किए गए-

- साइंस एंड टेक्नोलॉजी फॉर न्यू इंडिया - ग्लिम्सेज ऑफ फाइव यीअर्स एचीवमेंट्स 2014-2019
- शोकेसिंग अवर साइंस लैब्स - विजिट्स ऑफ डॉ. हर्ष वर्धन
- सीएसआईआर कम्पैण्डियम ऑफ टेक्नोलॉजिज
- सीएसआईआर कम्पैण्डियम ऑफ टेक्नोलॉजिज (टीआरएल मोर दैन सिक्स)





वैज्ञानिक तथा नवीकृत अनुसंधान अकादमी (AcSIR) के अन्तर्गत विज्ञान तथा प्रौद्योगिकी संचार में पीएचडी तथा एमएससी

सीएसआईआर-निसकेयर ने AcSIR के अन्तर्गत पीएचडी तथा एमएससी स्तर पर विद्यार्थियों को विज्ञान तथा प्रौद्योगिकी संचार में प्रवेश प्रदान किया है। सीएसआईआर-निसकेयर पिछले साठ वर्षों से विज्ञान के प्रचार-प्रसार में संलग्न है। अतः निसकेयर इस विशेषज्ञता तथा अनुभव से इन विषयों के द्वारा समाज को लाभान्वित करने में सहयोग करेगा। इस वर्ष पीएचडी में 35 तथा एमएससी में 14 विद्यार्थियों ने प्रवेश लिया है।

एमएससी (विज्ञान तथा प्रौद्योगिकी संचार) के पाठ्यक्रम में उनके लिए अनुसंधान परियोजना के रूप में शैक्षिक इन्टर्नशिप को अनिवार्य बनाया गया है जिसमें वे विभिन्न प्रमुख संस्थानों में गहन अन्तर्दृष्टि तथा व्यावहारिक अनुभव प्राप्त करते हैं। वर्तमान में नौ एमएससी विद्यार्थी निम्नांकित संस्थानों में अनुसंधान परियोजनाओं पर कार्य कर रहे हैं -

1. विज्ञान प्रसार, नई दिल्ली
2. राष्ट्रीय उन्नत अध्ययन संस्थान, बेंगलुरु
3. राष्ट्रीय जैविक विज्ञान केन्द्र, बेंगलुरु

राजभाषा

वर्ष 2019-20 सीएसआईआर-निसकेयर की राजभाषा इकाई ने विभिन्न विषयों पर प्रत्येक तिमाही में एक कार्यशाला/व्याख्यान का आयोजन कार्मिकों को राजभाषा का व्यावहारिक ज्ञान देने हेतु किया। वर्ष 2019 में 01 सितम्बर 2019 से 30 सितम्बर 2019 तक हिन्दी मास का आयोजन किया गया। इस अवधि के दौरान विभिन्न प्रतियोगिताओं यथा नोटिंग/ड्रॉफ़्टिंग प्रतियोगिता, चित्र आधारित कहानी लेखन प्रतियोगिता, कविता पाठ, वाद-विवाद, समाचार-वाचन, यूनिकोड में टंकण तथा प्रश्नोत्तरी प्रतियोगिता का आयोजन भी किया गया। श्री इन्द्रेण कुमार, चीफ पेटर्न, फोरम फॉर अवेयरनेस ऑन नेशनल सिक्वोरिटी इस अवसर पर मुख्य अतिथि थे। डॉ. एमओ गर्ग, पूर्व महानिदेशक, सीएसआईआर; डॉ. ए.के. सिंह, निदेशक, आईएआरआई; डॉ. आकांक्षा ए. राव, आईडीएएस, उप वित्त सलाहकार, रक्षा मंत्रालय, डॉ. वी.के. श्रीवास्तव, गृहमंत्रालय तथा डॉ. कीर्ति काले, प्रसिद्ध कवियत्री को सम्मानित



अतिथि के रूप में आमंत्रित किया गया था।

निस्केयर ने नराकास, उत्तरी दिल्ली के सहयोग से दिनांक 23-24 अक्टूबर 2019 को द्विदिवसीय राजभाषा महोत्सव का आयोजन भी किया जिसमें नराकास, उत्तरी दिल्ली के लगभग 60 कार्यालयों के 180 प्रतिभागियों जिसमें वैज्ञानिक/तकनीकी/प्रशासनिक सभी सम्मिलित हैं, ने प्रतिभागिता की।

संस्थान की वेबसाइट पूर्णतय: द्विभाषिक है तथा इसमें अंग्रेजी के साथ-साथ हिन्दी में भी नियमित रूप से अद्यतन किया जाता है। संस्थान की राजभाषा यूनिट अर्धवार्षिक राजभाषा पत्रिका नवसंचेतना का भी प्रकाशन करती है जिसमें संस्थान के कार्मिकों को हिन्दी भाषा के प्रति रूचि पैदा करने के लिए उन्हें लेख/कहानी/कविता लिखने हेतु प्रेरित किया जाता है। इस अवधि के दौरान दो अंक प्रकाशित किए गए।

योजना, मॉनीटरन तथा मूल्यांकन

संस्थान की विभिन्न परियोजनाओं की योजना, मॉनीटरन तथा मूल्यांकन का कार्य वित्तीय निवेश तथा जनशक्ति की तुलना में उत्सर्जित बाह्य वित्त प्रवाह के संदर्भ में किया जाता है।

वर्ष 2019-2020 के दौरान निम्नलिखित परियोजनाओं का मॉनीटरिंग किया गया-

1. सीएसआईआर द्वारा प्रायोजित सीएसआईआर वाइड कंसोर्टियम एक्सेस टू ऑनलाइन इंफॉर्मेशन रिसोर्सेज (एनकेआरसी) प्रोजेक्ट
2. ग्रांट इन एंड प्रोजेक्ट (प्रोजेक्ट कोड:जीएपी-0114) एफोर्डेबल डिवाइसेजएंड इक्वीपमेंट्स - प्रायोरिटी मेडिकल टेक्नोलॉजी नीड्स इन इंडिया, डीएसटी, भारत सरकार द्वारा निधित्व परियोजना
3. इन्सा युवा वैज्ञानिक परियोजना के अन्तर्गत कार्य
4. एसआईआरबी द्वारा निधित्व परियोजना का मॉनीटरन।

इसके साथ-साथ पीएमई विभाग वैज्ञानिक संचारण के अन्तर्गत संस्थान से सम्बन्धित सभी एस एंड टी पूछताछ का प्रत्युत्तर देने के साथ संसदीय प्रश्नों का प्रत्युत्तर भी देता है। सीएसआईआर-निस्केयर द्वारा आयोजन हेतु प्रस्तावित सम्मेलनों/कार्यशालाओं/संगोष्ठी के प्रस्तावों का मूल्यांकन भी करता है।

विभाग, प्रयोगशाला की अनुसंधान परिषद को प्राप्त वैज्ञानिक प्रस्तावों को भी अनुमोदन हेतु प्रस्तुत करता है। विभाग, सीएसआईआर-निस्केयर से सम्बन्धित सूचनाओं को सीएसआईआर मुख्यालय द्वारा प्रबन्धित C-DIS पोर्टल पर अपलोड करने का कार्य भी करता है।

प्रिंटिंग, प्रोडक्शन तथा ग्राफिक आर्ट

निस्केयर ने उच्च गुणवत्ता के एस एंड टी साहित्य का अभिकल्पन तथा मुद्रण का कार्य करते हुए इस क्षेत्र में अपना परचम लहराया है। इसके पास नवीनतम सुविधाओं से सुसज्जित ग्राफिक आर्ट तथा प्रिन्ट प्रोडक्शन विभाग है जिसमें पूर्व तथा पश्च मुद्रण सुविधाएं तथा विशेषज्ञता है।





विभाग निस्केयर के सभी गृहित प्रकाशन यथा अनुसंधान पत्रिकाएं, पुस्तकें, विश्वकोश, रिपोर्ट, न्यूजलैटर, लोकप्रिय विज्ञान पुस्तकों इत्यादि के प्रकाशन के साथ-साथ सीएसआईआर मुख्यालय, सीएसआईआर प्रयोगशालाओं/संस्थानों तथा अन्य सरकारी विभागों के वार्षिक प्रतिवेदन, न्यूजलैटर, बुलेटिन, अनुसंधान पत्रिकाएं, पोस्टर, विवरणिका, पत्रक इत्यादि का प्रकाशन भी करता है।

उपरोक्त सभी एस एंड टी प्रकाशनों के प्रकाशन सम्बन्धित सभी कार्य जैसे - आरम्भिक लागत, कापी एडिटिंग, फॉर्मेटिंग, डिजाइनिंग, प्रिंटिंग, बाइंडिंग इत्यादि कार्य भी इसी विभाग द्वारा कार्यान्वित किए जाते हैं। इस अवधि के दौरान 16 गृहित तथा 13 बाह्य जॉब पूर्ण किये गये तथा 46 लाख से अधिक का राजस्व अर्जित किया गया।

व्यापार विकास

देश के एक प्रमुख विज्ञान संचार संस्थान के रूप में सीएसआईआर-निस्केयर अनुसंधान पत्रिकाओं, पुस्तकों, विश्वकोश इत्यादि का प्रकाशन करता है तथा इसका एक सक्रिय बिक्री तथा विपणन विभाग है जो इसके प्रकाशनों पर सुलभता को बढ़ाने के साथ-साथ संस्थान के इन विविध सूचना उत्पादों का सदस्यता आधार बढ़ाने के लिए प्रयत्नशील रहता है।

वर्ष 2019-2020 के दौरान विभिन्न प्रकाशनों की बिक्री द्वारा रु. 273.29 लाख का अर्जन किया गया।



अवसंरचना

संस्थान का अवसंरचना विभाग संस्थान की अवसंरचना सम्बन्धी आवश्यकताओं की पूर्ति तथा विद्यमान सुविधाओं के रख-रखाव तथा प्रबन्धन हेतु उत्तरदायी है।

संस्थान के दोनों परिसरों के सिविल तथा इलेक्ट्रिक रख-रखाव तथा कार्य वातावरण को स्वच्छ व प्रभावशाली बनाने के लिए अवसंरचना विभाग प्रयत्नशील रहता है। इसके अतिरिक्त परिसरों की साफ-सफाई, परिवहन व्यवस्था के लिए भी अवसंरचना विभाग उत्तरदायी है।

1



Scholarly Communication



CSIR-NISCAIR
Annual Report 2019-20

Scholarly Communication

One of the primary mandates of CSIR-NISCAIR is providing a platform for the scientific community, especially Indian scientists, to publish their research papers. For the past almost seven decades, the Institute has been making this possible through its 18 research journals of international repute, covering all the key disciplines of science and technology, and 2 abstracting journals.

Primary Journals

1. *Journal of Scientific and Industrial Research* (JSIR, monthly)
2. *Indian Journal of Experimental Biology* (IJEb, monthly)
3. *Indian Journal of Chemistry - Section A* (IJC-A, monthly)
4. *Indian Journal of Chemistry - Section B* (IJC-B, monthly)
5. *Indian Journal of Pure and Applied Physics* (IJPAP, monthly)
6. *Indian Journal of Biochemistry and Biophysics* (IJBB, bimonthly)
7. *Indian Journal of Radio and Space Physics* (IJRSP, quarterly)
8. *Indian Journal of Chemical Technology* (IJCT, bimonthly)
9. *Indian Journal of Engineering and Materials Sciences* (IJEMS, bimonthly)
10. *Journal of Intellectual Property Rights* (JIPR, bimonthly)
11. *Indian Journal of Natural Products and Resources* (IJNPR, quarterly)
12. *Indian Journal of Geo-Marine Sciences* (IJMS, monthly)
13. *Indian Journal of Traditional Knowledge* (IJTK, quarterly)
14. *Indian Journal of Biotechnology* (IJBT, quarterly)
15. *Indian Journal of Fibre and Textile Research* (IJFTR, quarterly)
16. *Annals of Library and Information Studies* (ALIS, quarterly)
17. *Journal of Scientific Temper* (JST, quarterly)
18. *Bharatiya Vaigyanik evam Audyogik Anusandhan Patrika* (BVAAP, Hindi- half-yearly)

Abstracting Journals

19. *Medicinal and Aromatic Plants Abstracts* (MAPA, bimonthly)
20. *Indian Science Abstracts* (ISA, fortnightly)

NISCAIR Journals – International Practices

- Editorial Boards:** Editorial Boards comprise leading members of the scientific community from India and abroad.
- Refereeing:** Papers reviewed by peers (from India and abroad).
- Free publication:** No publication charges.
- Special issues:** Guest edited special issues published.
- Originality assurance:** Authors need to furnish originality certificate.
- Open access:** Free access to full-text of articles.

Many CSIR-NISCAIR journals figure among the highest impact Indian journals in the respective fields (Table 1a & 1b).

Table 1a: JCR (IF)/SJR/CiteScore/h-index/NAAS (As on 31 March 2020)

Journal	JCR (IF)	SJR	Cite Score	h-index	NAAS
<i>Indian J Experimental Biology (IJEb)</i>	0.934	0.371	–	67	6.93
<i>Indian J Traditional Knowledge (IJTK)</i>	0.920	0.308	0.84	28	6.92
<i>Indian J Pure & Applied Physics (IJPAP)</i>	0.822	0.220	0.87	34	–
<i>Indian J Engineering & Material Sciences (IJEMS)</i>	0.794	0.217	0.88	26	6.79
<i>J Scientific & Industrial Research (JSIR)</i>	0.735	0.306	0.62	46	6.74
<i>Indian J Chemical Technology (IJCT)</i>	0.614	0.205	0.58	33	6.61
<i>Indian J Fibre & Textile Research (IJFTR)</i>	0.511	0.326	0.79	35	6.51
<i>Indian J Chemistry Sec B (Organic Chemistry Including Medicinal Chemistry) (IJC-B)</i>	0.509	0.157	0.45	43	6.48
<i>Indian J Chemistry Sec A (Inorganic Bio-Inorganic Physical Theoretical Analytical Chemistry) (IJC-A)</i>	0.483	0.167	0.39	36	6.51
<i>Indian J Biochemistry and Biophysics (IJBB)</i>	0.357	0.199	0.53	37	6.36
<i>Indian J Biotechnology (IJBT)</i>	0.353	0.208	0.56	32	6.34
<i>Indian J Geo-Marine Sciences (IJMS)</i>	0.301	0.205	0.46	31	6.30
<i>Indian J Natural Products and Resources (IJNPR)</i>	–	0.184	0.48	25	4.08
<i>Indian J Radio & Space Physics (IJRSP)</i>	–	0.125	0.15	19	–
<i>J Intellectual Property Rights (JIPR)</i>	–	0.115	0.14	12	–
<i>Annals of Library and Information Sciences (ALIS)</i>	–	0.235	0.47	09	–

Table 1b: Journals [JCR (IF)/ h-Index/SJR/NAAS]
(As on 30 June 2020)

Journal	JCR	h-Index	SJR	NAAS
<i>Indian Journal of Experimental Biology (IJEb)</i>	0.783	72	0.23	6.93
<i>Indian Journal of Traditional Knowledge (IJTK)</i>	0.731	31	0.27	6.92
<i>Journal of Scientific and Industrial Research (JSIR)</i>	0.729	49	0.20	6.74
<i>Indian Journal of Pure and Applied Physics (IJPAP)</i>	0.653	38	0.19	NA
<i>Indian Journal of Biochemistry and Biophysics (IJBB)</i>	0.537	41	0.21	6.36
<i>Indian Journal of Engineering and Material Sciences (IJEMS)</i>	0.521	28	0.21	6.79
<i>Indian Journal of Chemistry Sec A (Inorganic Bio-Inorganic Physical Theoretical Analytical Chemistry) [IJC-A]</i>	0.489	38	0.18	6.51
<i>Indian Journal of Chemical Technology (IJCT)</i>	0.475	37	0.16	6.61
<i>Indian Journal of Fibre & Textile Research (IJFTR)</i>	0.449	39	0.26	6.51
<i>Indian Journal of Biotechnology (IJBT)</i>	0.413	34	0.19	6.34
<i>Indian Journal of Chemistry Sec B (Organic Chemistry Including Medicinal Chemistry) [IJC-B]</i>	0.388	45	0.17	6.48
<i>Indian Journal of Geo-Marine Sciences (IJMS)</i>	0.328	33	0.20	6.30
<i>Indian Journal of Natural Products and Resources (IJNPR)</i>	–	28	0.15	4.08
<i>Indian Journal of Radio & Space Physics (IJRSP)</i>	–	20	0.11	NA
<i>Journal of Intellectual Property Rights (JIPR)</i>	–	12	0.10	Nil
<i>Annals of Library and Information Sciences (ALIS)</i>	–	11	0.18	NA

By h-index, majority (13) of CSIR-NISCAIR Journals fall within first 100 out of total 543 Indian Journals. *Indian Journal of Experimental Biology (IJEb)* with the score of 72 ranks 4th followed by *Journal of Scientific and Industrial Research (JSIR)* at 15 with 49 h-index score. With total citations of 3018 in

2019, IJEb ranks 11th among 103 Indian Journals followed by JSIR at 24th position with 2015 total citations in 2019.

The data regarding papers received, papers published, papers rejected and pages printed in various research journals are given in Table 2.

Table 2: Publication Data of Research Journals
April 2019–March 2020

Publication Data of Research Journals					
Journal (frequency)*	Papers received	Papers published	Papers rejected (rejection rate %)	Pages published	I.F.
IJPAP (M)	493	116	412 (84%)	916	0.653
IJEMS (BM)	1338	45	1265 (95%)	448	0.521
IJCT (BM)	322	71	188 (61%)	587	0.475
IJFTR (Q)	305	71	234 (78%)	520	0.449
IJCB (M)	363	87	276 (76%)	810	0.388
IJCA (M)	310	54	244 (78%)	625	0.489
IJMS (M)	255	261	84 (33%)	2113	0.328
IJRSP (Q)	36	Nil	14 (39%)	Nil	NA
IJEB (M)	711	119	76.65	1014	0.783
JIPR (Q)	102	21	30 (29%)	234	NA
IJTK (Q)	1864	104	1680 (90%)	900	0.731
IJBB (BM)	416	63	234 (56%)	558	0.357
JSIR (M)	586	170	416 (71%)	1098	0.729
ALIS (Q)	-	-	-	-	NA
IJBT (Q)	281	34	230 (82%)	332	0.413
IJNPR (Q)	312	28	193 (62%)	286	NA
* M: Monthly; BM: Bi-monthly; Q: Quarterly					

Primary Journals

Chemical/Physical Sciences Journals

Indian Journal of Chemistry Sec A (IJC-A)

Abbreviation: Indian J Chem-Sec A

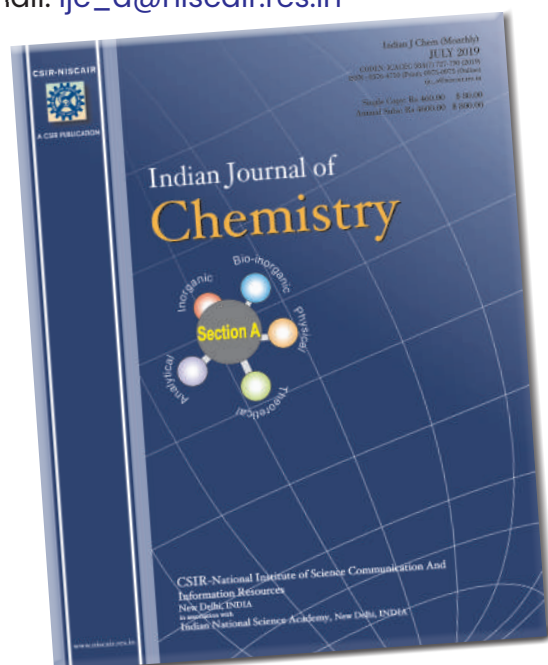
Periodicity: Monthly

ISSN: 0376-4710

e-ISSN: 0975-0975

CODEN: ICACEC

E-mail: ijc_a@niscair.res.in



Started in 1963, *Indian Journal of Chemistry* was bifurcated into two independent journals, Sections A and B, in 1976. *Indian Journal of Chemistry, Sec A* publishes papers in synthetic and structural inorganic chemistry, bio-inorganic chemistry, inorganic reaction mechanisms, solid-state chemistry, thermodynamics, spectroscopy, quantum chemistry, nuclear chemistry, polymers, catalysis and analytical chemistry.

Abstracted/Indexed in: Anal Abstr, Biol Abstr, Cadscan, Ind Chem, Ceram Abstr, Chem Abstr, Chem Inf, Curr Chem Reac, Curr Contents, Indian Sci Abstr, Lead Abstr,

Metal Abstr, Nutr Abstr, Sci Abstr, Sci Cit Index, World Alumin Abstr, World Text Abstr, Zincscan, DOAJ.

Indian Journal of Chemistry-Sec B (IJC-B)

Abbreviation: Indian J Chem-Sec B

Periodicity: Monthly

ISSN: 0376-4699

CODEN: IJOCAP

E-mail: ijc_b@niscair.res.in



Indian Journal of Chemistry, Sec B, started in 1976, publishes research articles in the areas of the organic reaction mechanism, synthesis of chiral compounds, bio-organic chemistry, enzymes in organic synthesis, chemoenzymatic and enantioselective synthesis of organic compounds, synthesis of fullerenes, metal-catalyzed asymmetric reactions, bioactive plant products and combinatorial chemistry.

Abstracting/Indexing Services: Anal Abstr, Chem Abstr, Biol Abstr, Curr Chem Reac, Curr Contents, Indian Sci Abstr, Nutr Abstr, Sci Abstr, Sci Cit Index.

Indian Journal of Pure & Applied Physics (IJPAP)

Abbreviation: Indian J Pure Appl Phys

Periodicity: Monthly

ISSN: 0019-5596

e-ISSN: 0975-1041

CODEN: IJOPAU

E-mail: ijpap@niscair.res.in



Started in 1963, IJPAP publishes full papers, notes, review articles, rapid communications, and advances in contemporary research and book reviews. It covers the entire spectrum of physics, especially condensed matter physics, nuclear physics, particle physics, optics, classical and quantum physics, relativity and gravitation, etc. except radio and space physics.

Special Issue: (i) "Nuclear, Particle and Accelerator Physics" Vol. 57 Issue no.(8) August 2019. (ii) "Nuclear, Particle and Accelerator Physics" Vol. 57 Issue no.(9) September 2019.

Abstracted/Indexed in: Anal Abstr, Appl Mech Rev, Biol Abstr, Cadscan, Ceram Abstr, Chem Abstr, Indian Sci Abstr, Lead Abstr, Mass Spec Bull, Math Rev, Sci Abstr,

Sci Cit Index, Phys Briefs, World Alumin Abstr, DOAJ, and Zinscan.

Indian Journal of Radio & Space Physics (IJRSP)

Abbreviation: Indian J Radio Space Phys

Periodicity: Quarterly

ISSN: 0367-8393

e-ISSN: 0975-105X

CODEN: IJRSAK

E-mail: ijrsp@niscair.res.in



Started in 1972 as a quarterly, IJRSP was made bimonthly in 1978. It publishes full papers and notes in radio wave propagation through nonionized media, chemistry and meteorology of troposphere and stratosphere, winds and motions in lower, middle and upper atmospheres, ionospheric propagation, magnetosphere, solar-terrestrial relationship, radio and radar astronomy, planetary and interplanetary space physics and radiofrequency standards and measurements. It also includes the areas covered by the Commissions of the International Union of Radio Science (URSI).

Scholarly Communication

Indian Journal of Chemical Technology (IJCT)

Abbreviation: Indian J Chem Technol

Periodicity: Bi-Monthly

ISSN: 0971-457X

e-ISSN: 0975-0991

CODEN: ICHT

E-mail: ijct@niscair.res.in; nopr.niscair.res.in



Started in 1994, *Indian Journal of Chemical Technology* has established itself as the leading journal in the exciting field of chemical engineering and technology. It is intended for rapid communication of knowledge and experience to engineers and scientists working in the area of research development or practical application of chemical technology. This bimonthly journal includes novel and original research findings as well as reviews in the areas related to Chemical Engineering, Catalysis, Leather Processing, Polymerization, Membrane Separation, Pharmaceuticals and Drugs, Agrochemicals, Reaction Engineering, Biochemical Engineering, Petroleum Technology, Corrosion & Metallurgy and Applied Chemistry.

Abstracted/Indexed in: Chem Abstr, Electr Electron Abstr, Indian Sci Abstr, Meteorol Geoastrophys Abstr, Phys Brief, Refrativnyi Zhurnal, DOAJ and Cambridge Sci Abstr.

Indian Journal of Engineering & Materials Sciences (IJEMS)

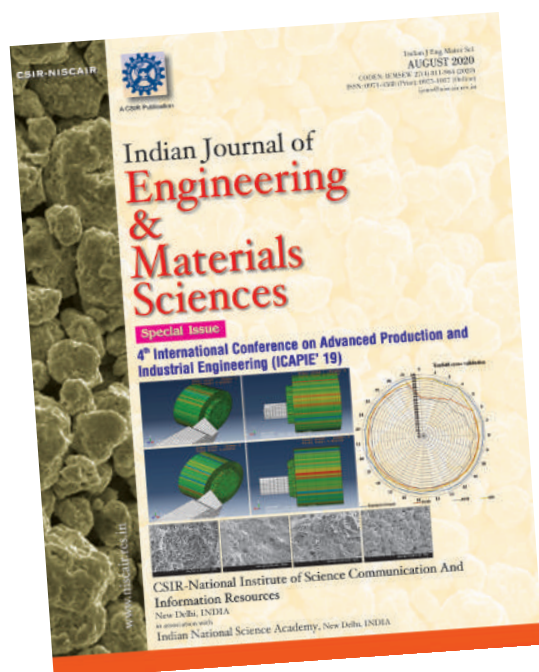
Abbreviation: Indian J Eng Mater Sci

Periodicity: Bi-Monthly

ISSN: 0971-4588

CODEN: IEMSEW

E-mail: ijems@niscair.res.in



Started in 1994, IJEMS publishes papers in aerospace engineering, mechanical engineering, metallurgical engineering, electrical/electronic engineering, civil engineering, fluid mechanics, instrumentation, and materials science.

Abstracted/Indexed in: Journal Citation Report (JSR), Web of Science, SCOPUS, Appl Mech Rev, Chem Abstr, Curr Contents, Eng Ind, Metal Abstr, Cambridge Sci Abstr, INSPEC, PASCAL, Sci Cit Index, Math Rev, NCI Curr Contents, ARAI Automotive Abstr and Indian Sci Abstr.

Abstracted/Indexed in: Chem Abstr, Curr Contents, Sci-Search, Res Alert, Eng Index, Indian Sci Abstr, NCI Curr Contents, ARAI Automotive Abstr, Cambridge Sci Abstr, INSPEC, PASCAL, DOAJ and Sci Cit Index.

Indian Journal of Fibre & Textile Research (IJFTR)

Abbreviation: Indian J Fibre Text Res

Periodicity: Quarterly

ISSN: 0971-0426

e-ISSN: 0975-1025

CODEN: IJFRET

E-mail: ijftr@niscair.res.in



Started in 1976, IJFTR publishes research and review papers on Production and properties of natural and synthetic fibres (including industrial fibres), yarns, and fabrics; Chemical and finishing processes; Physics and chemistry of fibre forming polymers; Fibre-reinforced composites; Analysis, testing and quality control; Application of microprocessors; Instrumentation; Industrial engineering; Application of nanotechnology in textiles; Dyeing and printing; and Garment technology.

Abstracted/Indexed in: Materials Science Citation Index, Science Citation Index-Expanded (including Web of Science), Journal Citation Report/Science Edition, TEXINCON, Scopus, World Textile Abstract, Indian Science Abstract, Chemical Abstracts, Textile Technology Digest, Refrativnyi Zhurnal, Paper CLIPP, Art and Archaeology Technical Abstracts, NCI Current Contents.

Biological/Life Sciences Journals

Journal of Scientific & Industrial Research (JSIR)

Abbreviation: J Sci Ind Res

Periodicity: Monthly

ISSN: 0022-4456

e-ISSN: 0975-1084

CODEN: JSIRAC

E-mail: jsir@niscair.res.in



The oldest journal of NISCAIR (started along with the inception of CSIR in 1942),

JSIR carries comprehensive reviews in different fields of science & technology (S&T) including industry, original articles/short communications/ case studies on various facets of industrial development, industrial research, technology management and forecasting, especially of direct relevance to industrial entrepreneurs.

Abstracted/Indexed in: Appl Mech Rev, Anal Abstr, Biol Abstr, Cadscan, CAD-CAM Abstr, Ceram Abstr, Chem Abstr, Chem Eng Abstr, DOAJ and Indian Sci Abstr.

Indian Journal of Experimental Biology (IJEB)

Abbreviation: Indian J Exp Biol

Periodicity: Monthly

ISSN: 0019-5189

e-ISSN: 0975-1009

CODEN: IJEBA6

E-mail: ijeb@niscair.res.in



Started in 1963, IJEB publishes full papers and notes in Cell Biology, Molecular Biology, Biotechnology, Endocrinology, Reproductive

Biology, Immunology, Developmental Biology, Comparative Physiology, Radiation Biology, Chronobiology, Microbiology, Pharmacology, Toxicology and other related biological fields including Instrumentation And Methodology. Review articles on current topics in the above fields are also considered for publication.

During 2019-2020, *Indian Journal of Experimental Biology* published 119 papers from authors representing 15 countries, apart from India, viz., Algeria, Brazil, China, Germany, Hungary, Iran, Iraq, Saudi Arabia, Nigeria, Poland, Egypt, South Africa, South Korea, Tunisia and Turkey.

Special issue: "Biotechnological Research and Innovation for Sustainable Development (BioSID 2019)", November 2019, Vol. 57 (11) 781-886 in association with Biotech Research Society, India (BRSI).

Abstracted/Indexed in: Academia, Biological Abstracts, BIOSIS previews, Catalogue (National Library of Australia), Chem Abstr, CABI Abstr, Essential Science Indicators, HathiTrust Digital Library, Science Citation Index Expanded (SCIE), US Natl Lib Medicine, WorldCat and Zoological Records.

Indian Journal of Biochemistry & Biophysics (IJBB)

Abbreviation: Indian J Biochem Biophys

Periodicity: Bi-Monthly

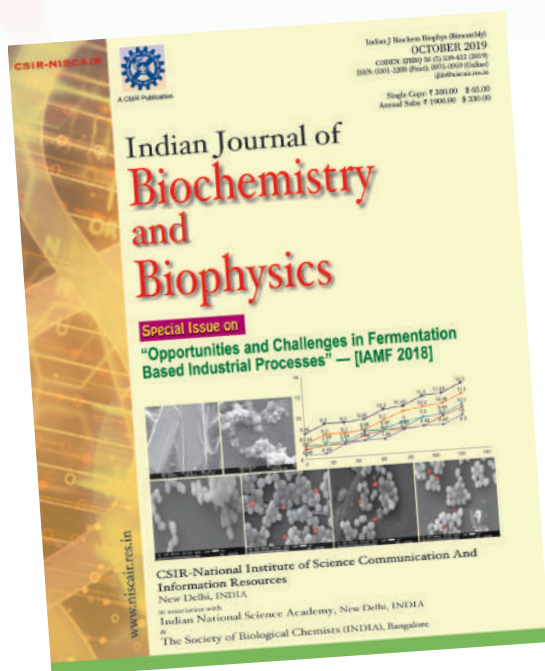
ISSN: 0301-1208

e-ISSN: 0975-0959

CODEN: IJBBBQ

E-mail: ijbb@niscair.res.in

Started in 1964, *IJBB* publishes original articles in the following areas: metabolism, regulation of biosynthesis of nucleic acids and proteins, growth factors, hormones, vitamins, enzymes, coenzymes, cell cycle and its control, membrane biochemistry, receptors, carrier proteins, drug targeting



and drug design, molecular basis of genetic diseases, apoptosis, surface forces, micelles and microemulsions, colloids, electrical phenomena in biological systems, biophysical/biochemical methods, etc. During 2019-2020, IJBB published 59 papers, out of which 12 are international contributions representing Armenia, Brazil, Peoples R China, Czech Republic, Egypt, Iran, Malaysia, Mexico, Iraq, South Korea, Sudan, Kingdom of Saudi Arabia, Turkey, Russia, Ukraine and USA.

Special issues: Special issues on "Opportunities and Challenges in Fermentation Based Industrial Processes" published in October 2019 Vol 56 (5) with two reviews from subject experts.

Abstracted/Indexed in: Academia, AYUSH Research Portal (<http://ayushportal.nic.in>), Biochem Biophys Index, Biological Abstracts, BIOSIS previews, Catalogue (National Library of Australia), Chem Abstr, CABI Abstr, DOAJ, Essential Science Indicators, Hathitrust Digital Library, *i*-Focus, *i*-Journals, OA Text, Sci Cit Index Expanded, Trop Dis Bull, US Natl Lib Medicine, and WorldCat.

Indian Journal of Geo-Marine Sciences (IJMS)

Abbreviation: Indian J Geomarine Sci

Periodicity: Monthly

ISSN: 0379-5136

CODEN: IJMNBF

E-mail: sundaresanj@hotmail.com



Started in 1972, this multi-disciplinary journal publishes full papers and short communications. The Indian Journal of Geo-Marine Sciences, issued monthly, is devoted to the publication of communications relating to various facets of research in (i) Marine sciences including marine engineering and marine pollution; (ii) Climate change & (iii) Geosciences i.e. geology, geography and geophysics.

Special Issues: (i) "Underwater Robotics System, Sensors and Instrumentation" Vol.48 Issue no.(7) July 2019. (ii) "Recent Advances in Marine Sciences" Vol. 48 Issue no. (8) August 2019.

Abstracted/Indexed in: Current Contents/ Agriculture, Biology & Environmental Sciences, Oceanographic Abstracts and Bibliography (Deep-Sea Research), Oceanic

Scholarly Communication

Abstracts, Aquatic Sciences and Fisheries Abstracts, Agrindex of FAO, Bioresearch Index of Biological Abstracts, Chemical Abstracts, Physical Abstracts, Meteorological & Geostrophysical Abstracts.

Journal of Intellectual Property Rights (JIPR)

Abbreviation: J Intellec Prop Rights

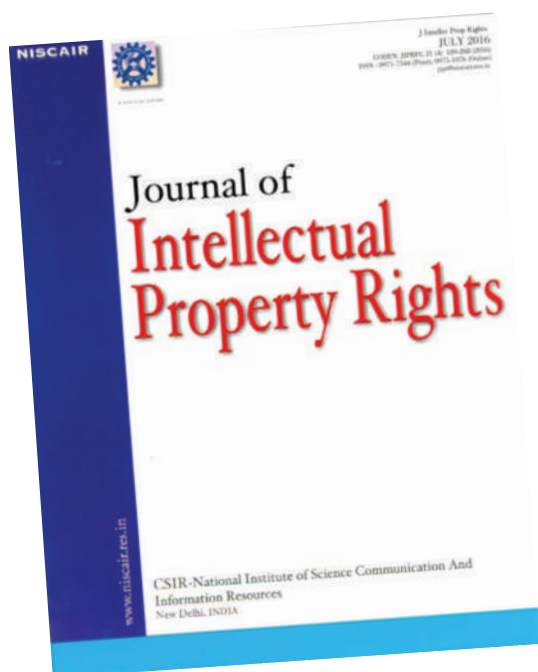
Periodicity: Bi-Monthly

ISSN: 0971-7544

e-ISSN: 0975-1076

CODEN: JIPRFG

E-mail: jjpr@niscair.res.in



JIPR was started in 1996 keeping in view the increasing importance of intellectual property rights and their protection. The journal publishes contributed/invited articles, case studies and patent reviews; opinion; technical notes on current IPR issues; literature review; world literature on IPR; national and international IPR news, book reviews, and conference reports.

Abstracted/Indexed in: Scopus, EBSCOhost Electronic Journals Service (EJS),

Directory of Open Access Journal (DOAJ), Library & Information Science Abstracts (LISA) database, Legal Information Institute of India (LIIofIndia) database.

Indian Journal of Natural Products and Resources (IJNPR)

Abbreviation: Indian J Nat Prod Resour

Periodicity: Quarterly

ISSN: 0976-0504

e-ISSN: 0976-0512

E-mail: ijnpr@niscair.res.in

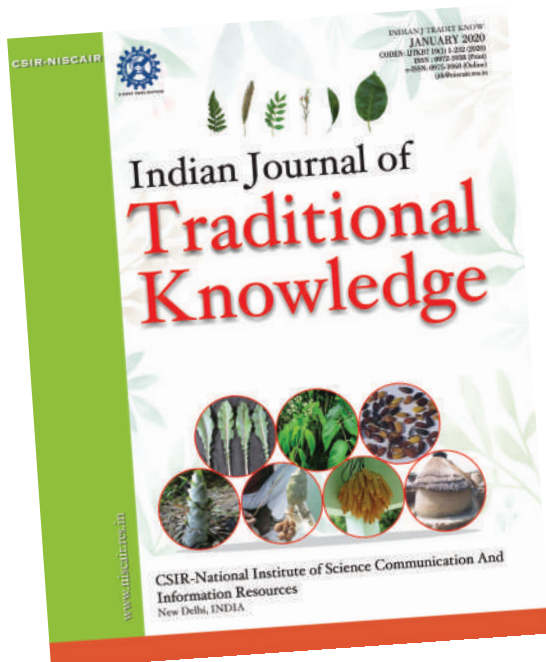


Started in 2002 as Natural Product Radiance, the journal publishes original research papers, especially of applied nature, reviews and feature articles dealing with cultivation, disease control measures, post-harvest technology, development/processes of products and utilisation (including ethnobotany and pharmacology) aspects of plants and animals. Besides, contributed papers by authors, and information compiled and collated by editors are also published. The digest has been converted into a research journal since 2010.

Abstracted/Indexed in: CABI Abstr, MANTIS database, Med Aromat Plants Abstr, DOAJ and Indian Sci Abstr.

Indian Journal of Traditional Knowledge (IJTK)

Abbreviation: Indian J Traditional Knowledge
Periodicity: Quarterly
ISSN: 0972-5938
e-ISSN: 0975-1068
E-mail: ijtk@niscair.res.in



Started in 2002, IJTK publishes original research papers, review articles and short communications on indigenous systems of medicine, revalidation of TK, herbal drug standardisation, folk medicine, artisans and tribal knowledge, agriculture, architecture, arts and crafts, water management, alternative energy sources, societal developments, etc. based on traditional wisdom.

Abstracted/Indexed in: CABI Abstr, NAPRALERT, MANTIS database, Food Sci Technol Abstr, Med Aromat Plants Abstr, Indian Sci Abstr, Sci Cit Index Expanded, and DOAJ. The journal is also covered under Non-Patent

Literature (NPL) of the Patent Co-operation Treaty (PCT) minimum documentation.

Indian Journal of Biotechnology (IJBT)

Abbreviation: Indian J Biotechnol
Periodicity: Quarterly
ISSN: 0972-5849
e-ISSN: 0975-0967
CODEN: IJBNA
E-mail: ijbt@niscair.res.in



Started in 2002, IJBT publishes full papers, short communications and reviews in agricultural, animal, environmental, industrial, medical and microbial biotechnology, bioinformatics, and socio-legal and ethical aspects in biotechnology.

Abstracted/Indexed in: Agric and Environ Biotechnol Abstr, AgriBiotechNet, Biotechnol Abstr, CABI Abstr, Chem Abstr, Food Sci Technol Abstr, Indian Sci Abstr, Industr Appl Microbiol Abstr, DOAJ, PubMed, Sci Cit Index Expanded, J Cit Rep Sci Ed and Biotechnol Cit Index.

Communication & Library Science

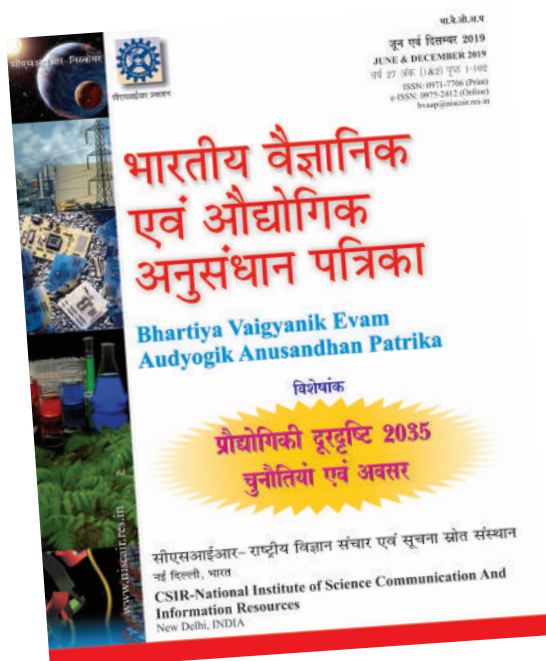
Bharatiya Vaigyanik Evam Audyogik Anusandhan Patrika (BVAAP, Hindi)

Periodicity: Half Yearly

ISSN: 0971-7706 (print)

e-ISSN: 0975-2412 (online)

E-mail: bvaap@niscair.res.in



NISCAIR started a Hindi Journal, *Bharatiya Vaigyanik evam Audyogik Anusandhan Patrika* (BVAAP) in June 1993. The journal publishes original and review articles in various disciplines of science such as chemistry, physics, botany, zoology, biochemistry, biophysics, geology, marine science, etc. along with various areas of engineering and technology. Articles in fields like biotechnology, pollution control, alternative sources of energy, science, and society, information science, etc. are also considered for publication.

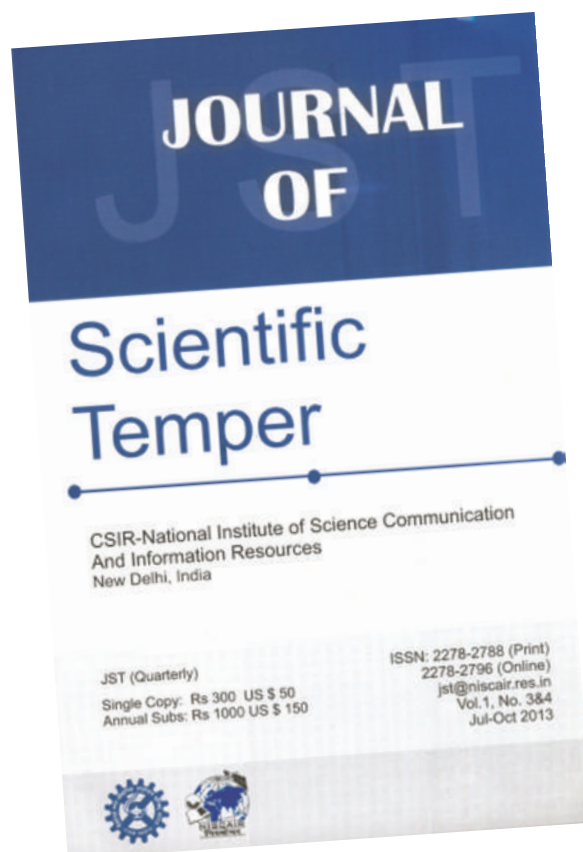
Journal of Scientific Temper (JST)

Periodicity: Quarterly

ISSN: 2278-2788 (print)

e-ISSN: 2278-2796 (online)

E-mail: jst@niscair.res.in



Started in 2014, this is a quarterly journal that deals with the area of scientific temper and public understanding of science. The journal is devoted to the publication of original research in the area of public understanding and attitudes towards science and technology: survey studies, scientific and extra-scientific belief systems, science and education, science popularisation, science fiction, history and philosophy of science, science and media, the role of science exhibitions, science centres, science museums and science and technology in developing countries.

Annals of Library and Information Studies

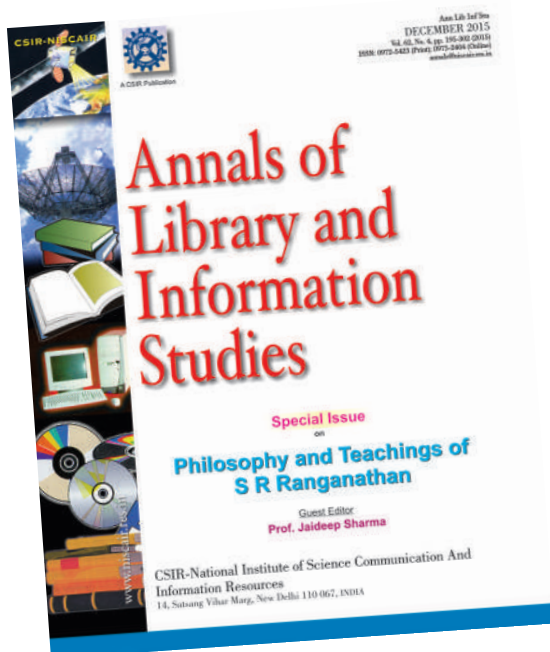
ABBREVIATION: ANN LIB INF STU

Periodicity: Quarterly

ISSN: 0972-5423

e-ISSN: 0975-2404

E-mail: annals@niscair.res.in



Started in 1954 as Annals of Library Science, this journal was the first publication of erstwhile INSDOC. The journal's title was expanded to Annals of Library Science and Documentation in 1964 symbolising the widening scope of the journal. Renamed as Annals of Library and Information Studies in 2001, the journal publishes articles on documentation and information science, information systems, bibliometrics, scientometrics, informetrics, education and training and other related areas.

Abstracted/Indexed in: Libr Inf Sci Abstr, Libr Inf Sci Tech Abstr and Indian Libr Inf Sci Abstr.

Abstracting Journals

Medicinal & Aromatic Plants Abstracts (MAPA)

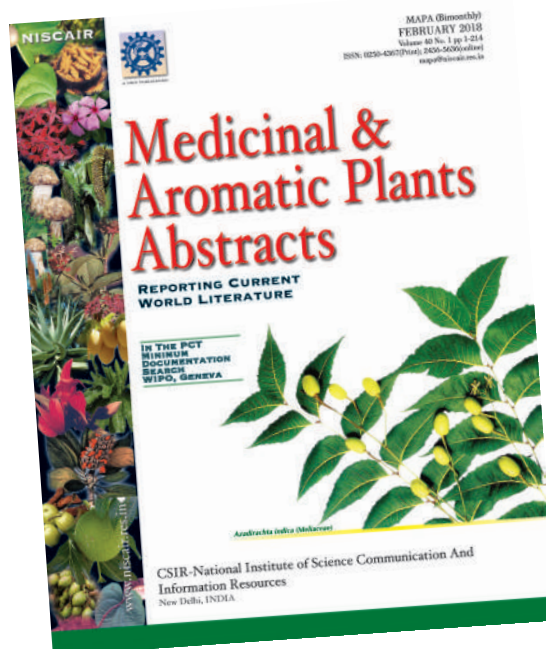
Abbreviation: Medaromatic PI Abstr

Periodicity: Bimonthly

ISSN: 0250-4367

e-ISSN: 2456-5636

E-mail: mapa@niscair.res.in



Medicinal & Aromatic Plants Abstracts (MAPA) is an abstracting journal which is published every two months. It started in 1979 with an aim to provide comprehensive coverage of the world literature on all aspects of medicinal, aromatic and allied plants. It covers abstracts of original scientific research work published globally, including short communications, reviews, and informative articles. It is accessible online through <http://mapa.niscair.res.in/> from 2011 onwards and can be searched by different parameters.

MAPA is included in the elite list of prior art scientific journals in the Non-Patent

Literature (NPL) as part of the requirement of Patent Co-operation Treaty (PCT) minimum documentation search of World Intellectual Property Organization (WIPO), Geneva. It is obligatory on the part of patent examiners to search for information from journals covered under NPL of PCT minimum documentation. During the year 2019-20, six issues of MAPA (Vol. 41 (2) – 42 (1)) were published containing 3323 abstracts.

Indian Science Abstracts (ISA)

Abbreviation: Indian Sci Abstr

Semi-monthly: Vol. 52

ISSN: 0019-6339

E-mail: isa@niscair.res.in

Indian Science Abstracts (ISA) is a semi-monthly abstracting periodical which started in January 1965 to abstract comprehensively and expeditiously the Indian scientific literature. ISA covers abstracts of original scientific research work published in Indian



journals including short communications, reviews, and informative articles. ISA scans over 900 S&T periodicals of R&D nature and adds about 24000 records per annum by bringing out 24 issues per year.



2

Science Popularisation- Connecting Science & Society



CSIR-NISCAIR
Annual Report 2019-20

Science Popularisation – Connecting Science & Society

Popularisation of science and dissemination of scientific information to a wide section of the Indian citizenry has been a major mandate of CSIR and is being fulfilled by CSIR-NISCAIR.

CSIR-NISCAIR takes science to the people through its three well-known popular science magazines: *Science Reporter* (English monthly), *Vigyan Pragati* (Hindi monthly) and *Science-ki-Duniya* (Urdu quarterly). The magazines find wide circulation throughout the country. Riding on their high quality of content, exquisite production quality, and timeliness the magazines have today become the largest selling popular science magazines in the country.

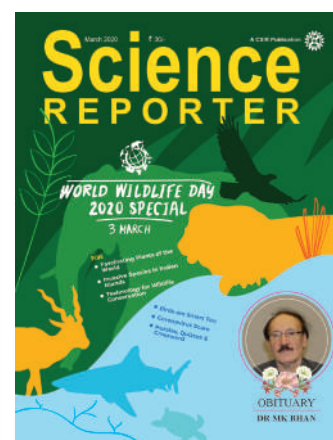
As part of its science popularisation mandate, CSIR-NISCAIR has also brought out a large number of popular science books, which remain much in demand several years after their publication.

The institute also publishes CSIR's R&D newsletters, viz. *CSIR News* and *CSIR Samachar*,

which disseminate information about the R&D accomplishments of CSIR laboratories among various stakeholders.

SCIENCE REPORTER

Launched in 1964, *Science Reporter* entered into its 57th year of publication in 2020. During 2019-2020, it continued with its objective of providing to its readers topical coverage of scientific issues from around the world as well as light reading material such as humour, amazing scientific facts, profiles of scientists, inventions, discoveries, debates, science fiction, scientoons, puzzles and much more. During the year, the magazine covered topical issues of major significance, such as *From AI to Robotics – Revolutionizing Healthcare*; *Cybersecurity and Healthcare*; *The Race For New Chemical Elements!*; *Capturing a Black Hole*; *Dr Gangadeep Kang – India's First Woman FRS*; *Will Super Intelligent Robots Take Over the World*; *Blockchain – Technology for the Future*; *Welcome The New*



Kilogram!; Interview with Dr Archana Sharma, CERN; Chandrayaan 2 – Aiming for the Lunar South Pole; Chandrayaan-2 – Daring Mission, Complex Challenges; Quantam Supremacy – Reality or Hype, Gaganyaan – India's Space Challenge, The Coronavirus Scare, etc.

Special Issues

To provide an added focus on certain topics of national concern, special issues of the magazine were brought out from time to time:

1. World Health Day 2019 Special (April 2019)
2. Space & Astronomy Special (September 2019)
3. Food & Health Special (World Food Day; October 2019)
4. World Wildlife Day 2020 Special (March 2020)

Interactive Columns

To enhance its appeal and attract more readers, *Science Reporter* lays great stress on keeping the contents dynamic by introducing new columns from time to time, such as:

1. **Spectrum:** Global science news.
2. **What's New:** New gadgets, inventions, apps, etc.
3. **Photo Feature:** Scientific stories through pictures.
4. **Innovative Minds:** Showcasing innovations that are truly transformational.

5. **Nature's Marvel:** Science behind the natural wonders of the world.
6. **CSIR Technology Showcase:** Latest achievements/technologies/products developed by CSIR.

Science Fiction and Science Cartoon Competitions

To involve the readers more closely and also to inculcate the habit of thinking scientifically and creatively, especially among the younger readers, *Science Reporter* initiated the Science Fiction and Science Cartoon competitions in the year 2008. These competitions have become annual events and are attracting widespread participation from readers from all walks of life.

VIGYAN PRAGATI

Launched in 1952, *Vigyan Pragati* entered the 68th year of its publication in 2020. *Vigyan Pragati* endeavours to familiarise its readers with important current events/issues in the field of science in an easy-to-understand manner. The keen interest of the readers is well evident by their feedback through the incessant inflow of letters.

Articles from experts were published on several topical issues to apprise readers of the latest developments. Some of the important topics covered during the period 2019-2020 are *Nobel Prizes 2019; Scientific Breakthroughs of 2019; Mission Chandrayaan 2; Truth behind MMR Vaccine; 3D Food Printing; Soft Robotics;*



Science Popularisation – Connecting Science & Society

Australian Forest Fire; Biosimilars; Wildlife conservation; Food Safety & Security, etc.

Special Issues

Special issues focused on thematic topics were brought out from time to time:

1. World Health Day Special (April 2019)
2. World Environment Day Special (June 2019)
3. World Food Day Special (October 2019)
4. Children's Day Special (November 2019)
5. World Wildlife Day Special (March 2020)

Interactive Corners

To enhance its appeal and attract more readers, *Vigyan Pragati* lays great stress on keeping the contents dynamic by introducing new columns from time to time, such as:

1. **CSIR Bulletin:** Covering latest S&T developments in CSIR institutions.
2. **Science Spectrum:** Focused on latest scientific findings.
3. **Crossword:** Science crosswords specially focused on thematic topics.
4. **Vigyan Kavitaen:** Science through poems.
5. **Sawal Jawab:** Scientific queries answered.
6. **Khel Khel Mein Ganit:** Enhancing children's understanding of mathematical ideas and vocabulary.
7. **Naveen Prodyogiki:** Latest technologies.
8. **Yuva Vaigyanik:** Inventions by young Indians.
9. **Vigyan Galp:** Science fiction.

SCIENCE-KI-DUNIYA

Started in 1975, *Science-ki-Duniya* is a quarterly magazine which is among the most widely read Urdu magazines in the country. It provides a package of varied columns such as Science Quiz, Innovative Minds, Nature's Wonders, Q&A, Science News, Photo feature,



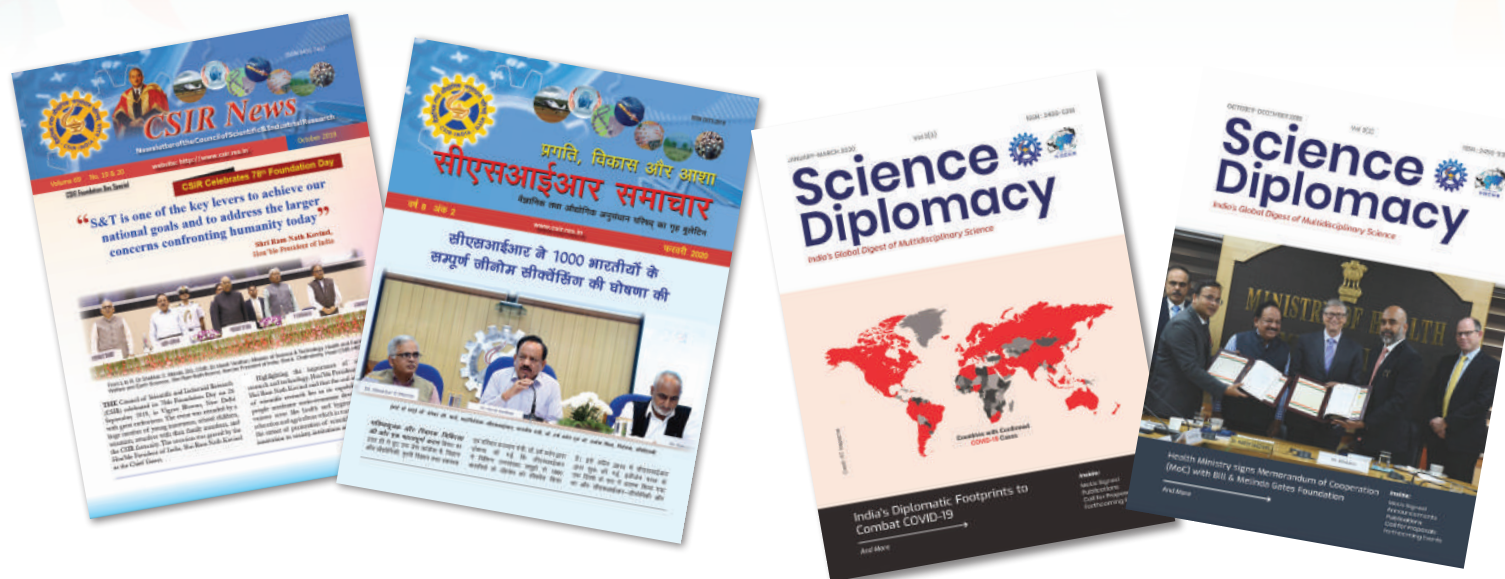
New Words and definitions, and Science for Children apart from other topical and absorbing articles in each issue.

The major articles published during the period include *Bit-Coin*; *Chandrayaan-2*; *Teeka aur iske fayede*; *Maholiyati aaloodgi aur hamari zimmedariya*; *Coronavirus aur hifzan sehat ke asool*; *Sofiya robot*; *Black Hole*. Besides, the magazine also brought out a special issue on the topic *Aalami wabaayi amraz* (April-June 2020).

CSIR NEWS & CSIR SAMACHAR

CSIR-NISCAIR brings out two newsletters that showcase the new developments and achievements of CSIR laboratories and report on events taking place in CSIR. While *CSIR News* (English) was launched in 1951, the *CSIR Samachar* (Hindi) was launched in 1984.

The newsletters are intended to serve as a useful link among the various CSIR establishments. They also showcase the achievements of CSIR laboratories to other R&D organisations, universities, S&T agencies/departments, industry, mass media, and also foreign agencies.



CSIR News and CSIR Samachar publish news pertaining to R&D accomplishments, technology transfers, marketing, commercialisation/utilisation, sponsorships, collaborations, IPR, etc. Also covered are abstracts of high impact factor papers published by CSIR scientists in journals, new facilities, important conferences/seminars/workshops/training programmes, various MoUs signed, important events such as Foundation Day and Technology Day celebrations, lectures, the appointment of Directors, announcements regarding forthcoming events, etc.

Full text of CSIR News and CSIR Samachar are hosted on the NISCAIR website (www.niscair.res.in) with link to CSIR website (www.csir.res.in).

SCIENCE DIPLOMACY

CSIR-NISCAIR recognises the importance and needs for pursuing science diplomacy as most of the global problems require global solutions and it is pertinent to create a new role for science in international policy-making and diplomacy. CSIR-NISCAIR has taken an initiative in the form of a Science

digest 'Science Diplomacy', a quarterly science digest that shares India's top scientific research, innovation and policy developments including bilateral or multilateral MoUs, policy statements, forthcoming conferences, calls for proposals, etc.

AUDIO-VISUAL MEDIA

CSIR-NISCAIR produces and collate audio-visual material on various scientific issues/institutions and makes it accessible to the public at large. The following activities were performed during the financial year 2019-20:

1. Interview of former Director Dr Manoj Kumar Patra.
2. Video coverage of the International Conference on "Digital Economy: The Space for Science and Technology Information" jointly organised by CSIR-NISCAIR, Department of Science and Technology (DST) and the International Centre for Scientific and Technical Information (ICSTI), Moscow, at the A.P. Shinde Symposium Hall, NASC Complex, New Delhi during 19-20 September 2019.

Science Popularisation – Connecting Science & Society



3. Sports activities conducted by CSIR-NISCAIR as part of CSIR Foundation Day-2019 activities on the premises of CSIR-NISCAIR in September 2019.
4. Interaction with and awareness of how to make scientific films to students and teachers from Kendriya Vidyalaya, who visited CSIR-NISCAIR as part of the Jigyasa Programme.
5. Video recording and post-production of the Training on “Ayurgenomics and Integrative Medicine for Wellness” during 20-26 November 2019 organised by CSIR-IGIB.
6. Video recording of scientific events at the 28th New Delhi World Book Fair-2020.



3



Information Resources & Services



CSIR-NISCAIR
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Information Resources & Services

One of the core activities of NISCAIR is to collect, organise and disseminate S&T information generated in India as well as in the world. Under this programme, the Institute has built up a comprehensive collection of S&T publications in print as well as in electronic form, and databases that could be of immense benefit to different segments of the society. The primary information resources and services of NISCAIR are the following:

- ◆ National Science Library (NSL)
- ◆ National Union Catalogue of Scientific Serials in India (NUCSSI)
- ◆ Document Procurement and Supply
- ◆ The Wealth of India
- ◆ Raw Materials Herbarium & Museum, Delhi (RHMD)
- ◆ Translation Service

Raw Materials Herbarium & Museum, Delhi (RHMD)

The Raw Materials Herbarium and Museum, Delhi (RHMD), established in 1978 houses preserved samples of various species in the form of herbarium sheets and carpological samples of economic and traditional medicinal plants, animals and samples of rocks and minerals (covered in the *Wealth India – Raw Materials Series volumes*) collected from various corners of India.

There are over 8000 specimen of economic and medicinal plants of India and the Museum comprises over 3000 samples of crude-drugs, animal and mineral specimens. The RHMD also provides authentication service (of herbarium and crude drug samples based morphological key features) to students, research scholars, scientists and other entrepreneurs.



The RHM e-bulletin, a quarterly bulletin, published three issues covering the following three plants: Broom-cypress or Mexican Fireweed, *Bassia scoparia* (L.) A. J. Scott cv. *trichophylla* (Family: Chenopodiaceae); Orange Jessamine or Kamini, *Murraya paniculata* (L.) Jack syn. *Murraya exotica* L. (Family: Rutaceae); and Roundleaf Bindweed or Vishnukrantha, *Evolvulus nummularius* (L.) L. syn. *Convolvulus nummularius* L. (Family: Convolvulaceae). Besides, added by three more issues during the period.



During the year, RHM received about 22 general visitors and about 1500 school students accompanied by about 50 teachers from various schools in and around Delhi on different dates. Visitors were explained about the preparation as well as the importance of Herbarium sheets in plant collection.

As part of the service, authentication of plants, plant parts and crude drug samples, RHM processed 672 samples for various clients (165 research scholars/students and 13 firms including giants in the field of Indian Medicine, such as Jamia Hamdard,

Divya Pharmacy (Patanjali), Green Chem, Multani, Ananta Medicare, Natural Remedies Pvt. Ltd, SIMA Laboratory, Emami Ltd., etc. as well as Institutes like All India Institute of Ayurveda, New Delhi, Dravyaguna Vigyan National Institute of Ayurveda, Siddhayu Ayurvedic Research Foundation, Amity Institute of Pharmacy, Amity University, Noida, Kurukshetra University, Kurukshetra, Haryana, etc.

Besides, research scholars from different institutes and universities also took the benefit of this service for their research works. Revenue generation through authentication service for the financial year 2019-2020 was Rs. 3,96,480/-.

National Science Library

The National Science Library (NSL) was set up in 1964 to provide a broad range of S&T documentation and information services. One of the core objectives of NSL is to build up a comprehensive collection of S&T publications in the country and also offer services on a national scale. The acquisition policy of NSL aims at acquiring relevant S&T publications published in the country and strengthening its resource base of foreign periodicals through the acquisition of the journals in electronic form as far as possible.

NSL subscribes to several Indian and foreign S&T periodicals. The library has more than 2,50,000 monographs and bound volumes of periodicals. In addition to serving as a national S&T information source, it provides support to other activities of NISCAIR, like compilation of Indian Science Abstracts, Medicinal & Aromatic Plants Abstracts (MAPA), Wealth of India and providing document supply service, etc.

Library Acquisitions: During the year 2019-20, 65 books were acquired and catalogued. With regard to serials, 84 Indian and



National Science Library (NSL)

29 Foreign periodicals were subscribed. The library registered 2072 visitors during 2019-20.

The e-resources available during the year 2019-20 include:

- 1) Essential Science Indicators
- 2) Journal Citation Reports (JCR)
- 3) Web of Science –Expanded
- 4) ACS Archives
- 5) Sage Archives
- 6) Emerald Archives
- 7) Springer Archives
- 8) iThenticate
- 9) Indian Citation Index
- 10) Indianjournals.com
- 11) SCOPUS
- 12) Indian Standards

These apart, over 3000 foreign journals

are available in the National Science Library through the National Knowledge Resource Consortium.

Reader Service: The NSL is open to the public for reading and consultation during working hours from 9.00 AM to 5.30 PM (Monday to Friday). During the year 2019-20, 2072 walk-in users visited the library. The National Science Library (NSL) provides on-the-spot photocopies of articles from its collection at a nominal rate of ₹ 1.00 per page. A sum of approximately ₹ 17,766/- was realized from the photocopying service.

NSL also has a few registered members that include research scholars, scientists and students. A sum of Rs. 41,500/- was realised on account of membership to National Science Library.



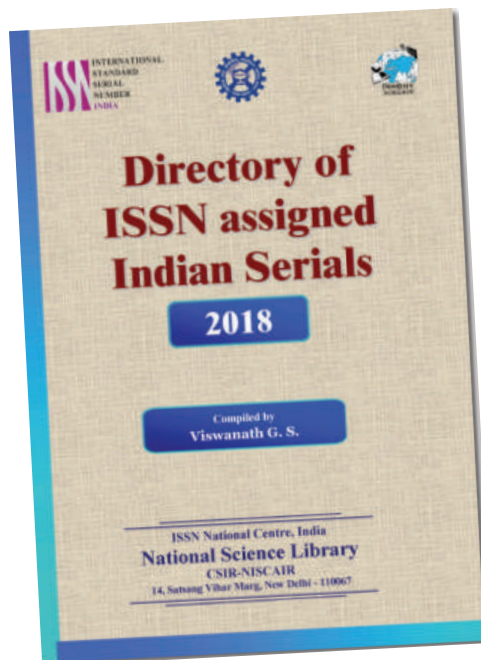
Reader Service

ISSN Indian National Centre: The Indian ISSN National Centre at NSL is one of a network of over 89 national centres worldwide. The primary functions of the ISSN National Centre are:

- ◆ Assigning ISSN to serials published in India
- ◆ Registering them in the international database in Paris
- ◆ Promoting the use of ISSN in India and acting as the link between publishers and the ISSN Network
- ◆ Promoting ISSN in India and being responsible for contact to various users of ISSN

Up to 31 March 2020, 24,277 Indian periodicals had been assigned ISSN. During the period 2019-20, 701 ISSN were registered by the ISSN National Centre.

The Indian National Centre for ISSN



also brought out the *Directory of ISSN Assigned Indian Serials – 2017 and 2018*. The NSL realised a sum of ₹ 81,930/- from the sale of the Directory and the issuance of ISSN certificates.

Scientometrics and Informetrics: The National Science Library is engaged in carrying out bibliometric/scientometric analysis of research papers of individual scientists and institutions; Impact Factor calculation of non-SCI journals and detailed analysis of research papers of academic and research organisations.

During the period 2019-20, citation analyses of ~ 1775 papers of 23 individual scientists/ Institutions and journals were carried out. Further, citation analyses were also carried out for the following two prestigious awards and the report submitted to CSIR-HRDG:

- ◆ Young Scientist Award Nominees 2019 (341 publications of 32 Nominees)
- ◆ Dr Shanti Swarup Bhatnagar Prize Nominees 2019 (8738 papers of 251 Nominees)

Impact Factor was also calculated for two non-SCI journals.

CSIR Research Output: NSL also brought out a detailed analysis report of CSIR Research Papers published during the year 2018. The report gives a descriptive analysis of CSIR publications during 2018 and also benchmark with S&T publication output of other leading research institutions in the country. The report also analyses research publications across CSIR laboratories with the detailed subject-wise distribution of research publications in laboratories and analysis of research publications during 2018 in laboratories.

Other bibliometric/scientometric services: NSL is also engaged in providing the analytical data to CSIR-HQ pertaining to various Parliament and audit queries on a case to case basis. The section also provided analytical data to different CSIR-labs as per their needs and requirements.

NUCSSI: National Union Catalogue of Scientific Serials in India (NUCSSI) is the first indigenous database that serves as



National Union Catalogue of Scientific Serials in India

(NUCSSI)



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Show 10 Records

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1	1001 Home Ideas	Select
2	2001	Select
3	21st Century Science And Technology	Select
4	33 Magazine Of Metals Producing Industry	Select
5	50 Plus	Select
6	73 Amateur Radio	Select
7	73 Magazine for Radio Amateur	Select
8	8 M, Delhi	Select
9	80 Micro	Select
10	8M:Journal of Indian Management And Strategy	Select

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Search Criteria

For Journal

For Library

For City

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an ideal tool to access Journal holding's information. NUCSSI is a data repository of a large number of unique journal titles and library holdings belonging to major state and central universities, Scientific and Technical institutions, Research and Development units of industries, higher institutes like IISc, IITs and professional institutes spread all over the country; and provides information regarding the availability of journal titles in the libraries. Presently it has 572 libraries covering near about 268,169 journal holdings.

Document Procurement, Copying and Supply

To meet the requirements of researchers and scientists in the country, Document Copy Supply Service is being offered by NISCAIR from its collection of about five thousand periodicals. Besides, the Institute taps resources of a number of S&T libraries in the country by knowing the availability of a given document from its database of National Union Catalogue of Scientific Serials in India (NUCSSI).

Some of the most important S&T libraries in and around the Delhi region providing a considerable percentage of the total document copy supply are the Indian Agricultural Research Institute (IARI) library, National Medical Library (NML) and the Delhi University Library (DUL). Besides, the resources of other libraries and information centres, such as IITs and IISc, are also tapped. If a document is not available within the country,

NISCAIR exploits its alliances with libraries abroad and procures the desired document from foreign sources viz. British Library London UK. During the year, 144 document copies were supplied.

Library Training

The National Science Library provided one month and three months trainings to 15 library and information science students of various universities and colleges including students of University of Delhi, Indira Gandhi National Open University, Meerabai Polytechnic, etc.

Translation Service

CSIR-NISCAIR provides bilingual services primarily in the domain of S&T from about 20 foreign languages into English and vice-versa in select languages. During April 2019 to March 2020, translation services were provided primarily in Japanese, Chinese, French and Russian.

During this period, 15 orders were registered and executed. This amounted to the translation of 668 pages. Work included authentication of translation for legal purposes in Japanese language and English translation of Russian documents.

The subject areas covered in this section range from Police or court-related departments, reports on State of Art developments, certification of financial or other registration-related documents; defence R&D related documents, patents, specifications and legal documents.



4



IT Solutions



CSIR-NISCAIR
Annual Report 2019-20

IT Solutions

C **SIR-NISCAIR's** scientific information dissemination and science communication activities are actively supported by a robust and modern IT infrastructure. With science communication and outreach activities relying heavily on modern ICT, services like Online Access of NISCAIR's Primary Journals (NOPR) & Popular Science Magazines, Online Publishing Software (OJS), Website and a state-of-the-art Data Centre have gained paramount importance. Major activities carried out during the period 2019-20 include:

A) Online Access of NISCAIR's Primary Journals & Popular Science Magazines (NOPR.niscair.res.in)

NISCAIR Online Periodicals Repository (NOPR) hosts online its research journals, popular science magazines & Natural Products Repository at <http://nopr.niscair.res.in>. All the 18 research journals have been added under Open Access mode for accessing full text. Current issues of all the research journals are published online in NOPR for open access well before the publication of print version for the immediate benefit of researchers.

Digitization of the following 12 journals has been completed from Volume 1 Issue 1 and these are available for online & open access:

1. *Indian Journal of Traditional Knowledge (IJTK)* [started in 2002]

2. *Indian Journal of Biotechnology (IJBT)* [started in 2002]
3. *Indian Journal of Natural Products and Resources (IJNPR)* [Formerly *Natural Product Radiance (NPR)*] [started in 2002]
4. *Journal of Intellectual Property Rights (JIPR)* [started in 1996]
5. *Indian Journal of Engineering & Materials Sciences (IJEMS)* [started in 1994]
6. *Indian Journal of Chemical Technology (IJCT)* [started in 1994]
7. *Bharatiya Vaigyanik evam Audyogik Anusandhan Patrika (BVAAP)* [started in 1993]
8. *Indian Journal of Chemistry -Section A (IJC-A)* [started in 1976]
9. *Indian Journal of Fibre & Textile Research (IJFTR)* [started in 1976]
10. *Indian Journal of Radio & Space Physics (IJRSP)* [started in 1972]
11. *Indian Journal of Geo-Marine Sciences (IJMS)* [started in 1972]
12. *Annals of Library and Information Studies (ALIS)* [started in 1954]

Digitization facility has been created in NISCAIR & digitization work of remaining journals is in progress. After 100% digitization of all NISCAIR journals, NOPR will have more than 1 lakh research articles in the public domain. Year-wise availability of full text is given in the following table:

SN	Journal	Previous Years	13	14	15	16	17	18	19	20
RESEARCH JOURNALS										
1.	<i>ALIS</i>	✓54-12	✓	✓	✓	✓	✓	✓	✓	NA
2.	<i>BVAAP</i>	✓93-12	✓	✓	✓	✓	✓	✓	✓	NA
3.	<i>IJBB</i>	✓99-12	✓	✓	✓	✓	✓	✓	✓	
4.	<i>IJBT</i>	✓02-12	✓	✓	✓	✓	✓	✓	✓	
5.	<i>IJC-A</i>	✓76-12	✓	✓	✓	✓	✓	✓	✓	
6.	<i>IJC-B</i>	✓99-12	✓	✓	✓	✓	✓	✓	✓	
7.	<i>IJCT</i>	✓94-12	✓	✓	✓	✓	✓	✓	✓	
8.	<i>IJEB</i>	✓99-12	✓	✓	✓	✓	✓	✓	✓	
9.	<i>IJEMS</i>	✓94-12	✓	✓	✓	✓	✓	✓	✓	NA
10.	<i>IJFTR</i>	✓76-12	✓	✓	✓	✓	✓	✓	✓	
11.	<i>IJMS</i>	✓72-12	✓	✓	✓	✓	✓	✓	✓	
12.	<i>IJNPR</i>	✓02-12	✓	✓	✓	✓	✓	✓	✓	
13.	<i>IJPAP</i>	✓99-12	✓	✓	✓	✓	✓	✓	✓	
14.	<i>IJRSP</i>	✓72-12	✓	✓	✓	✓	✓	✓	NA	NA
15.	<i>IJTK</i>	✓02-12	✓	✓	✓	✓	✓	✓	✓	
16.	<i>JIPR</i>	✓96-12	✓	✓	✓	✓	✓	✓	✓	NA
17.	<i>JSIR</i>	✓99-12	✓	✓	✓	✓	✓	✓	✓	
18.	<i>AIR</i>	New journal	NA	NA	NA	NA	NA	NA	✓	NA
POPULAR SCIENCE MAGAZINES										
19.	<i>SR</i>	10-12	✓	✓	✓	✓	✓	✓	✓	✓
20.	<i>VP</i>	10-12	✓	✓	✓	✓	✓	✓	✓	✓
21.	<i>SKD</i>	10-12	✓	✓	✓	✓	✓	✓	✓	NA
NATURAL PRODUCTS REPOSITORY										
22.	<i>NPARR</i>	10-12	✓	✓	✓	✓	✓	✓	NA	NA

To increase visibility, NISCAIR journals have been registered &/or indexed with Directory of Open Access Journals (DOAJ), Registry of Open Access Repositories (ROAR), Directory of Open Access Repositories (DOAR), Google Scholar, National Digital Library of India (NDLI) and other prominent search engines. NISCAIR is a content partner of NDLI for its contribution of resources available on NOPR.

Three popular science magazines published by NISCAIR are also hosted on NOPR for online access:

1. *Science Reporter* [in English]
2. *Vigyan Pragati* [in Hindi]
3. *Science Ki Duniya* [in Urdu]

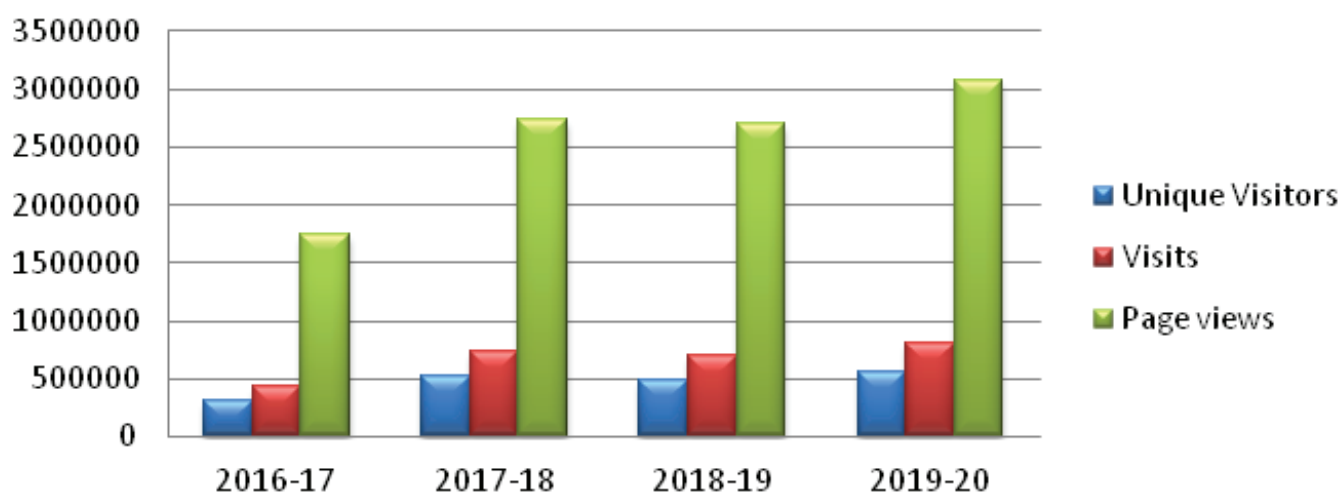
All readers can access six-month-old issues of these magazines online available at <http://nopr.niscair.res.in> for free. Subscribers of the print edition can

access the current & past issues of these magazines online.

The repository has data spanning from 1954 till current issues. At present,

the repository has 49390 articles. NOPR was accessed by 5,61,498 users with 30,68,607 pageviews from 226 countries & 289 Indian cities.

Visits/Page Views for NOPR (last four years)



File Edit View History Bookmarks Tools Help

NOPR: Home

← → ↻ 🏠

🔒 nopr.niscair.res.in 90% 🌐 📄 🔄

Getting Started Web of Science [v.5.34...]

NISCAIR Online Periodicals Repository

🏠 Home Browse + Help 🔍 Search NOPR 👤 Sign on to: -

Welcome to NISCAIR Online Periodicals Repository

You can now access full text articles from research journals published by CSIR-NISCAIR! Full text facility is provided for all nineteen research journals viz. ALIS, AIR, BVAAP, IJBB, IJBT, IJCA, IJCB, IJCT, IJEB, IJEMS, IJFTR, IJTK, JIPR, JSIR & JST. NOPR also hosts three Popular Science Magazines viz. Science Reporter (SR), Vigyan Pragati (VP) & Science Ki Duniya (SKD) and a Natural Products Repository (NPARR).

NOPR

Quick Links	ALIS	AIR	BVAAP	IJBB	IJBT	IJCA	IJCB	IJCT	IJEB	IJEMS	IJFTR
	IJMS	IJNPR	IJPAP	IJRSP	IJTK	JIPR	JSIR	JST	SKD	SR	VP
	NPARR	Online Submission of Articles		NISCAIR publications- Price list			Contact us	Feedback			

Last 5 Current Issues

[IJBB June 2020](#) | [IJCA April 2020](#) | [IJEB June 2020](#) | [VP June 2020](#) | [IJMS March 2020](#)

Communities in NOPR

Choose a community to browse its collections.

[NISCAIR PUBLICATIONS](#) (49621)

Discover

Author	Subject	Date issued
Kumar, Anil (122)	Cotton (296)	2010 - 2020 (18768)
Kumar, Ashok (108)	Antioxidant (223)	2000 - 2009 (15045)

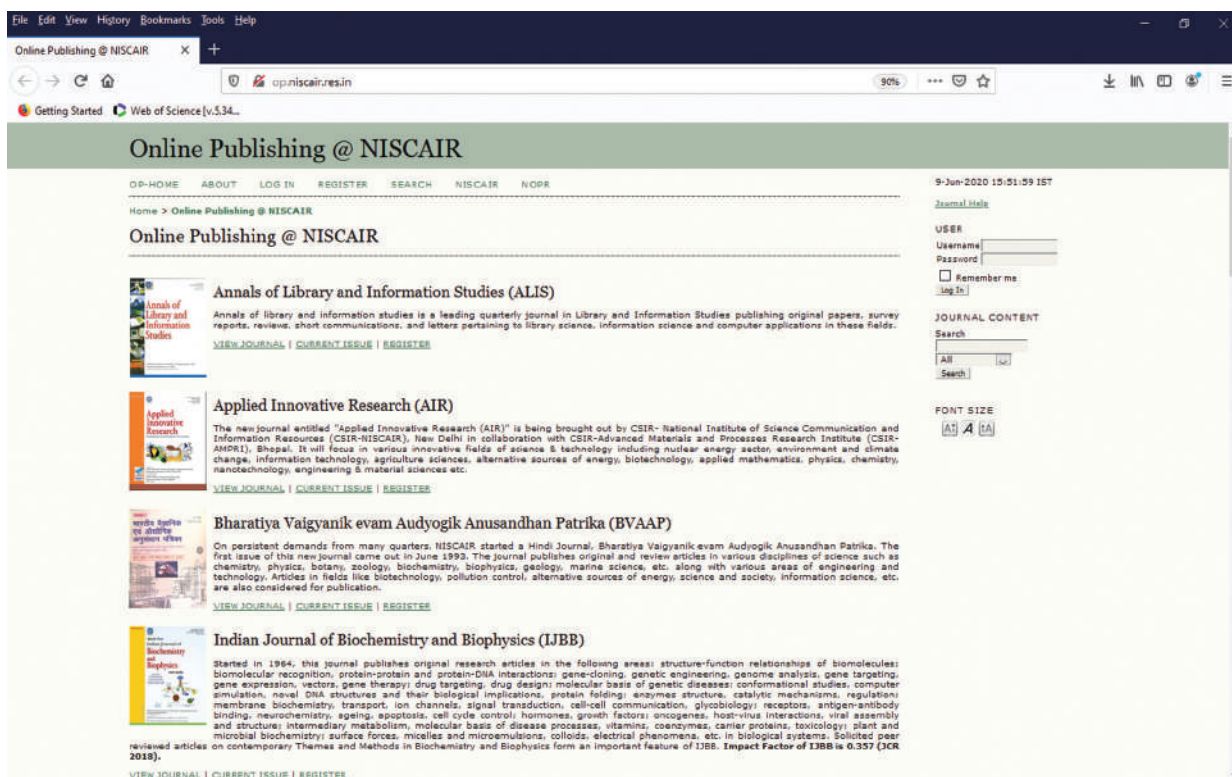
nopr.niscair.res.in/handle/123456789/54434

B) Online Publishing System for Automation of Editorial Process

'Online Publishing @ NISCAIR (OP)' has been implemented for automation of the editorial process for NISCAIR research journals. It is based on open source publishing software 'Open Journal Systems (OJS)' which has been customised as per NISCAIR requirement. This system is available at <http://op.niscair.res.in>. Presently this facility is available for following 18 research journals published by CSIR-NISCAIR, of which 8 journals were added during 2019-20:

1. *Annals of Library and Information Studies (ALIS)*
2. *Indian Journal of Chemical Technology (IJCT)*
3. *Indian Journal of Chemistry -Section A (IJCA)*
4. *Indian Journal of Fibre & Textile Research (IJFTR)*
5. *Indian Journal of Natural Products and Resources (IJNPR)*

6. *Indian Journal of Pure & Applied Physics (IJPAP)*
7. *Indian Journal of Radio & Space Physics (IJRSP)*
8. *Journal of Intellectual Property Rights (JIPR)*
9. *Journal of Scientific Temper (JST)*
10. *Applied Innovative Research (AIR)*
11. *Indian Journal of Traditional Knowledge (IJTK)*
12. *Indian Journal of Biochemistry and Biophysics (IJBB)*
13. *Indian Journal of Engineering and Materials Sciences (IJEMS)*
14. *Indian Journal of Chemistry -Section B (IJC-B)*
15. *Bharatiya Vaigyanik evam Audyogik Anusandhan Patrika (BVAAP)*
16. *Indian Journal of Biotechnology (IJBT)*
17. *Indian Journal of Experimental Biology (IJEB)*
18. *Indian Journal of Geo-Marine Sciences (IJMS)*





It also hosts the *Journal of Indian Association for Environmental Management* (JIAEM) published by CSIR-NEERI.

This publishing system has optimized & reduced life cycle of the editorial process. As the system has auditing & logging facility apart from statistics & reporting tools, it has eliminated manual record keeping.

C) Maintenance and Updation of NISCAIR & Intranet Website

NISCAIR website (www.niscair.res.in) is being maintained and updated regularly in English & Hindi. Hindi website has been developed using Unicode fonts for proper display of Hindi fonts and is being updated regularly. Bilingual office forms, internal orders/circulars/notifications are regularly hosted on the intranet website (intranet.niscair.res.in).

D) CSIR-CRRI, CSIR-NPL, CSIR-NISCAIR, CSIR HQRS, CSIR-IPU, CSIR EXAM Unit Archival: Maintenance of Web Portal in NISCAIR Data Centre

All the above-mentioned websites are live and hosted in NISCAIR Data Centre. An automated backup policy is configured to take the daily backup of all the Web Portal Application and Database. The performance of the website is monitored regularly and periodic meetings with IT teams of respective Labs are organised to share the performance of the Web Portal and discuss any issues.

E) CSIR Vendor Registration Portal: Hosting & Archival

The CSIR HQ Purchase Section, developed a new portal for online registration of vendors. NISCAIR was requested for provisioning of Server and Security umbrella, which can be made available

to CSIR HQ. for 24x7 operation and storage of data of the portal with the daily backup of the data.

F) Aadhaar Enabled Biometric Attendance System (AEBAS): Operation And Maintenance

AEBAS Machines installed at both locations of NISCAIR are being regularly maintained.

G) Full HD Video Conferencing Facility With 5+1 Sites (Polycom Real Presence Group 500)

Management of Video Conferencing Unit is being done regularly.

H) Management and Upkeeping of Digital Information Resource Facility (MAUKDIRF)

The Digital Information Resource Facility (DIRF) has been created to provide uninterrupted, authorised and secure access of NISCAIR and CSIR resources to the scientific community and researchers all over the world. The DIRF also houses ISO 27001:20013 certified Tier-II Level Data Centre (DC). It is successfully hosting CSIR and NISCAIR contents.

I) IT Infrastructure Development and Maintenance

NISCAIR has LAN infrastructure of 300 nodes at Pusa location and 360 nodes at SV Marg with 1 Gbps (1:1) Leased Line Internet Connectivity. Following addition was made in the IT infrastructure during the period:

1. Renewal of AMC of UPS

J) Development/Management of Facility Management Software

Many Facility Management Softwares have been developed in-house such as DIRF Reception Management System; Document Management Information System (DMIS) for integrated office procedure; Guest House Management and Maintenance software, and Registration & Billing Software for different services like Translation, Bibliography, Bibliometrics, ISA, CAPS, etc. in the marketing division.

K) IT HUMAN RESOURCE DEVELOPMENT

CSIR-NISCAIR provides six-month training (from January to June and July to December) to MCA students and other students pursuing Computer Science/IT course leading to MSc, BE, BTech, ME, and MTech. Degrees to work on projects in the area of application of IT as partial fulfilment of their degree course requirements.



5



Human Resource Development



CSIR-NISCAIR
Annual Report 2019-20

Human Resource Development

C **SIR-NISCAIR** is equipped with the necessary facilities and manpower to train and prepare science communicators, R&D personnel and library and information science professionals for meeting the challenges of the current times. Human Resource Development Programmes/Skill Training Programmes are conducted under CSIR Integrated Skill Initiative by Human Resources Development Division, CSIR-NISCAIR.

CSIR-NISCAIR has been conducting Training Programmes for national and international participants on various topics particularly in the following areas:

- Science Communication
- Social Media Communication
- Information Technology
- Information Management
- Library Automation
- Website Development
- Institutional Repositories
- Journal Publishing through Open Journal Systems

During the financial year 2019-20, the revenue generated from the training courses was ₹ 15.68 lakhs. About 338 participants have been trained in 18 courses.



Technical Session on Library Automation and Digitization

S. No.	Course	Duration	No. of Participants
1.	Skill Training in Library Automation and Institutional Repositories for Library Professionals	22 April – 17 May 2019	5
2.	Workshop on Dspace jointly with Central University of Himachal Pradesh onsite at Dharamshala	13–15 May 2019	26
3.	Data Science	27–31 May 2019	19
4.	Koha Software for Library Automation	17–21 June 2019	25
5.	Dspace Software for Design and Development of Institutional Repositories	24–28 June 2019	12
6.	Science Communication	08–12 July 2019	15
7.	Website Development	22–26 July 2019	9
8.	Library Automation and Digitization	05–09 August 2019	25
9.	Social Media Communication	02–06 September 2019	34
10.	Koha Software for Library Automation – Advance	14–18 October 2019	27
11.	Library Automation and Networking	18–29 November 2019	18
12.	Website Development and Open Journal Systems (OS) Software	09–13 December 2019	06
13.	Open Journal System (OJS) Software for Journal Publishing	06–10 January 2020	04
14.	Dspace Software for Design and Development of Institutional Repositories – Advance	20–24 January 2020	14
15.	Data Science: Big Data and Deep Learning	27–31 January 2020	11
16.	National Workshop on “Science Writing and Research Communication” jointly with R. D. and S. H. National College at Mumbai	17–19 February 2020	45
17.	Open Journal Systems (OJS) Software for Journal Publishing for Editors & Editorial Staff of NISCAIR journals	20 February 2020	23
18.	Library Automation and Networking	24 February–06 March 2020	20



Workshop on Science Communication



Inaugural Session of Library Automation and Networking training programme



Participants of Library Automation and Networking training programme



Participants of Data Science: Big Data and Deep Learning training program

On-site Training Programmes

CSIR-NISCAIR has been organising onsite training courses as per the specific requirements of various institutions. The Institute is also providing open-source software technology solutions for library management and for setting up the digital

libraries at various institutions. The technical trainings for effective use of these software solutions are arranged at premises of the institutions availing these services.

During the year 2019-20, following onsite trainings were organised:

Venue	Duration	No. of Participants
Workshop on Dspace jointly with Central University of Himachal Pradesh, Dharamshala	13-15 May 2019	26
National Workshop on "Science Writing and Research Communication" jointly with R. D. and S. H. National College, Mumbai	17-19 February 2020	45



Workshop on Dspace at Central University of Himachal Pradesh, Dharamshala



National Workshop on "Science Writing and Research Communication" at R.D. and S. H. National College, Mumbai

Technical Services for Library Modernisation

CSIR-NISCAIR has initiated technical services for library modernisation for CSIR and other institutions. The technical services offered on payment basis are:

- Data migration from existing Library Management Software to Koha
- Installation of Linux and Koha
- Creation of Digital Library with Dspace – Linux/Windows
- Technical training on Linux, MySQL, Koha, Dspace
- Annual technical support for Koha
- Advance customisation of Koha
- Advance customisation of Dspace

CSIR-wide Consortium Access to Online Information Resources

Journals and databases are essential resources required for furthering research and development. Globally, there has been a shift from individual library subscription of journals to the consortia approach of licensing electronic resources. Since subscribing to electronic journals in an isolated manner is not cost-effective, and it limits access to resources thereby institutional consortia such as the National Knowledge Resources Consortium (NKRC) facilitate complete access to substantial information resources at a relatively lower cost. CSIR laboratories and all DST institutions are part of NKRC and CSIR-NISCAIR is functioning as the Nodal Laboratory for the Consortium.



Human Resource Development

Through the project “CSIR-wide Consortium Access to Online Information Resources” under NKRC, CSIR-NISCAIR facilitates comprehensive access to world-class R&D journals and databases thus enabling

CSIR and DST scientists and researchers to engage in competitive high science.

During the year 2019-2020, the project facilitated access to the journals and databases of the following major publishers:

S.No.	e-Resources/Publisher	Type
1.	American Chemical Society (ACS)	Journals
2.	American Institute of Physics (AIP)	Journals
3.	American Physical Society (APS)	Journals
4.	American Society of Civil Engineers (ASCE)	Journals
5.	ASTM SEDL Standards	Database
6.	Clarivate Analytics-Derwent Innovation	Database
7.	Clarivate Analytics-Web of Science	Database
8.	Elsevier-Scopus	Database
9.	Emerald	Journals
10.	IEEE	Journals
11.	Institute of Civil Engineers (ICE)	Journals
12.	Institute of Physics (IOP)	Journals
13.	J-Gate	Database
14.	Optical Society of America (OSA)	Journals
15.	Oxford University Press (OUP)	Journals
16.	Questel-Orbit's QPat	Database
17.	Royal Society of Chemistry (RSC)	Journals
18.	SciFinder	Database
19.	Springer Nature-NPG Journals	Journals
20.	Springer Nature-Springer Journals	Journals
21.	Taylor & Francis (T&F)	Journals
22.	Wiley	Database

The above resources were selected through a “need requirement study” and later negotiating with the publishers through a

Negotiation Committee which consists of members from CSIR Labs, DST institutes and other leading consortia in the country.



**National Knowledge Resources Consortium (NKRC) 2019-2020
Task Force Committee Meeting at CSIR-NISCAIR**



**National Knowledge Resources Consortium (NKRC) 2019-2020
Negotiation Committee Meeting at CSIR-NISCAIR**

Human Resource Development



Jigyasa Web Portal

During 2019-2020, CSIR-NISCAIR successfully developed and hosted the web portal for CSIR-JIGYASA, a unique platform for bringing scientists and teachers on one platform for nurturing young minds. The programme envisages providing the national scientific

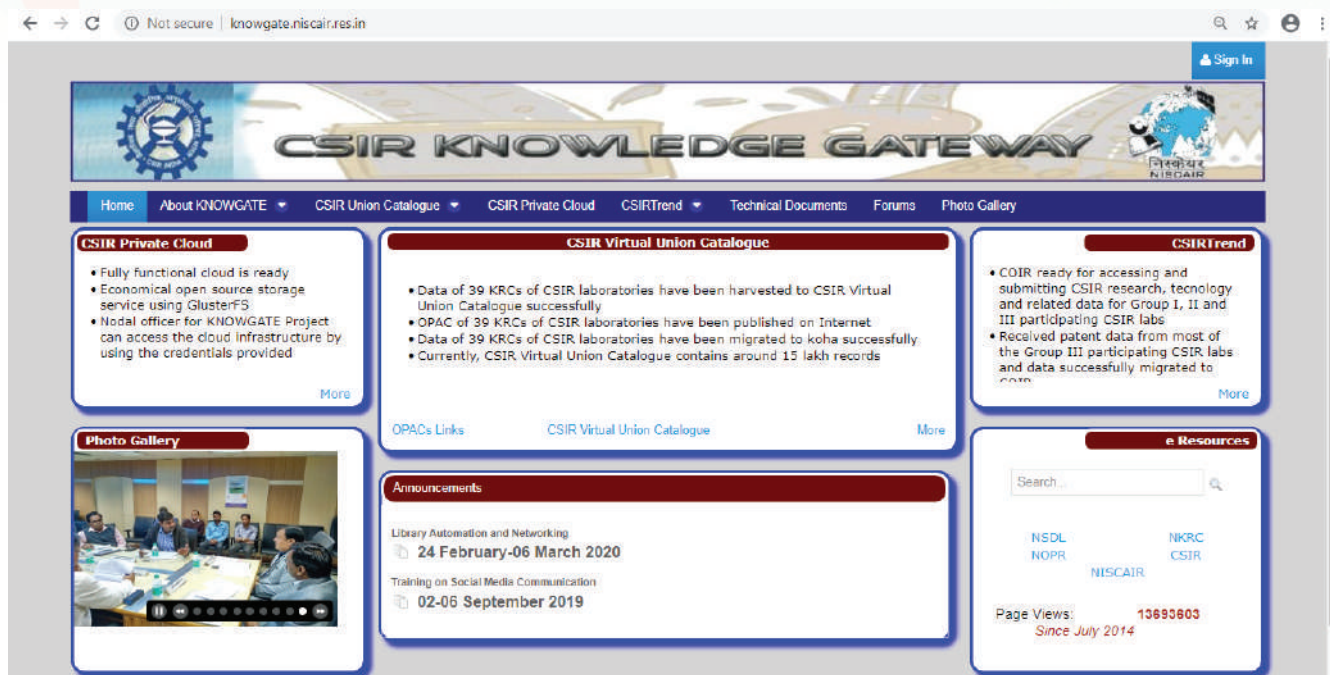
facilities and scientific knowledge base of CSIR to be explored and utilized by school children. School children and teachers of Kendriya Vidyalaya Sangathan, Narvodaya Vidyalaya Sangathan, Government and other schools and Scientists of all CSIR Institutes are the beneficiaries of the Jigyasa web portal.



Jigyasa Web Portal

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The project is funded by CSIR-Hqrs. The portal was launched by Dr Shekhar C. Mande, Director General, CSIR & Secretary DSIR during Directors' Conference on 26 February 2020 at Goa.

This web portal (<http://csirjigyasa.niscair.res.in/>) is enriched with important information about the Jigyasa programmes, conducted by all CSIR Labs. Some of the models of engagement of Jigyasa programme are:

- 1) Laboratory Visits
- 2) Popular Lecture Series
- 3) Summer Vacation Programmes
- 4) Scientists as Teachers and Teachers as Scientists
- 5) Teachers' Workshop
- 6) Student Residential Programme
- 7) Visits of Scientists to Schools
- 8) Lab specific activities/Onsite experiments

During the period 2019-2020, 115343 students, 9151 teachers and more than 500 Scientists/Researchers of CSIR participated in the Jigyasa Programme.

CSIR KNOWLEDGE GATEWAY AND OPEN SOURCE PRIVATE CLOUD INFRASTRUCTURE (KNOWGATE)

CSIR-NISCAIR successfully completed the 12th Five Year Plan (FYP) Network project under Information Sciences Cluster titled "CSIR Knowledge Gateway and open source private cloud infrastructure (KNOWGATE)". The objective of the project was to provide low-cost solutions using open-source software technologies to communities engaged in information dissemination. The project is aligned with the Government of India's Digital India Initiative.

Major Achievements

Web Portal for CSIR Knowledge Gateway

A Web portal (<http://knowgate.niscair.res.in/>) including federated searching for knowledge resources, interfaces for cloud computing and multi-dimensional analysis has been created. The portal had 1,10,04,535 page views since July 2014 till March 31, 2020.

CSIR Cat Module

Under CSIRCat module, a distributed Library/Virtual Union Catalogue of CSIR (CSIR-VUC) has been created ([http:// knowgate.niscair.res.in/catalogue](http://knowgate.niscair.res.in/catalogue)) using open source software and Z39.50 protocol. Around 15 lakh records have been migrated into KOHA and harvested into CSIR-VUC.

CSIR Cloud Module

CSIR private cloud is developed ([http:// knowgate.niscair.res.in/csirprivate-cloud](http://knowgate.niscair.res.in/csirprivate-cloud)) to enhance computing power for data-intensive research and applications hosting for KRCs, provide cloud infrastructure as service to be accessed from any CSIR laboratory. It is used by individual KRCs for their computational needs.

CSIR Trend Module

CSIR Online Information Repository (COIR) (<http://csirtrend.niscair.res.in/jspui/>) is a multidimensional analysis system that has been developed to extend information access for enabling excellence. It is used for analysing research and technological data. It serves as a tool with provision for storing centralised data which is scattered across different labs.

Open Source Software Technology Solution Cell (OSSTSC)

An Open Source Software Technology Solution Cell (OSSTSC) is functional to provide open-source software solutions for library automation, institutional repositories/digital libraries, network security and management, training and technical support services.



6



International Collaborations



CSIR-NISCAIR
Annual Report 2019-20

International Collaborations

C **SIR-NISCAIR** has been functioning in the areas of science communication and information sciences and has over the years developed several international linkages. During the year 2019-2020, several activities were organised in collaboration with international organisations.

Vigyanika: International Science Literature Festival 2019

CSIR-National Institute of Science Communication and Information Resources (NISCAIR) and Vigyan Prasar organised

Vigyanika-International Science Literature Festival during 5-7 November 2019 at Kolkata. The literature festival was held as a part of the fifth India International Science Festival mega-event and was attended by more than 200 invitees, researchers, scientists and students.

ICSTI-DST-NISCAIR Conference on "Digital Economy: The Space for Science and Technology Information"

The International Conference on "Digital Economy: The space for science and technology information" was jointly organised



by CSIR-NISCAIR, Department of Science and Technology, Govt of India, and International Centre for Scientific and Technical Information during 18-20 September 2019.

The international conference brought together science and technology information and communications specialists, policymakers and scientists from across the world to deliberate on the important aspects related to the theme including taking a panoramic global view of the Science and Technology Information (STI) and deliberating on the infrastructure for STI in the digital economy.

The two-day event had seven sessions deliberating on issues related to information literacy, scientific journals, open digital environment, open access, scientific ethics and so on.

44th ISSN Directors' Meet

CSIR-NISCAIR organised the augural programme of the 44th ISSN Director's meeting from 12 to 15 November 2019. Dr Gaelle Bequet, Director, ISSN International Centre; Dr S.K. Varshney, Head International Cooperation (Bilateral), DST, GoI; Dr Jagdish Arora, Former Director, Information and Library Network (INFLIBNET Centre) & Adviser National Board of Accreditation; and Dr A. JayaKumar, Special Adviser, Vigyan Bharti (VIBHA), Chief Guest of the Inaugural session, graced the dais.

National Centre of the ISSN International Centre

CSIR-NISCAIR is the National Centre of the ISSN International Centre. The Indian ISSN National Centre at the CSIR-NISCAIR National



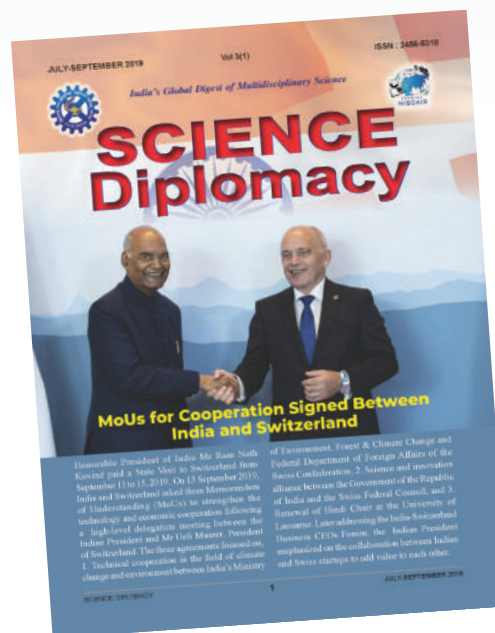
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Science Library is one of the networks of over 89 national centres worldwide. The primary functions of the ISSN National Centre are:

- ◆ Assigning ISSN to serials published in India
- ◆ Registering them in the international database in Paris
- ◆ Promoting the use of ISSN in India and acting as the link between publishers and the ISSN Network
- ◆ Promoting ISSN in India and being responsible for contact to various users of ISSN

Science Diplomacy – India's Global Digest of Multidisciplinary Science

Science Diplomacy is among the first endeavours to bring highlights of Indian scientific achievements in foreign languages. It helps in identifying priority



areas for collaboration and involvement of stakeholders in policy-making and strategic engagements, including scientists, academicians, senior diplomats, science counsellors and experts.



7

» Science
» Outreach & New
Publications



CSIR-NISCAIR
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Science Outreach & New Publications

CONFERENCES/WORKSHOPS

Vigyanika: International Science Literature Festival 2019

CSIR-National Institute of Science Communication and Information Resources (NISCAIR) and Vigyan Prasar organised *Vigyanika*-International Science Literature



Festival during 5-7 November 2019 at Kolkata. The literature festival was held as part of the fifth India International Science Festival mega-event and was attended by more than 200 invitees, researchers, scientists and students. As part of *Vigyanika*, various events were organised such as Keynote Lectures, Panel Discussions, Scientific Sessions, Round Table Meet, and Vigyan Kavita apart from Science Cartoon Workshop & Competition.

International Science Film Festival of India (ISFFI)

The event was jointly organised by Vigyan Prasar, New Delhi; Satyajit Ray Film and Television Institute, Kolkata; CSIR-NISCAIR and VIBHA during 5-7 November 2019 at Kolkata. The literature festival was held as part of the fifth India International Science Festival to promote and recognise the efforts of filmmakers and motivate them to develop scientific and innovative content, promote science with audio-visual media among



citizens and offer an opportunity to students and budding filmmakers to get involved with the process of science filmmaking.

Several Indian and foreign movies were screened and expert interactions with prominent scientists were held during the festival. A competition for Indian independent and student filmmakers was organised on the theme: "Research, Innovation & Science Empowering Nation."

ICSTI-DST-NISCAIR Conference on "Digital Economy: The Space for Science and Technology Information"

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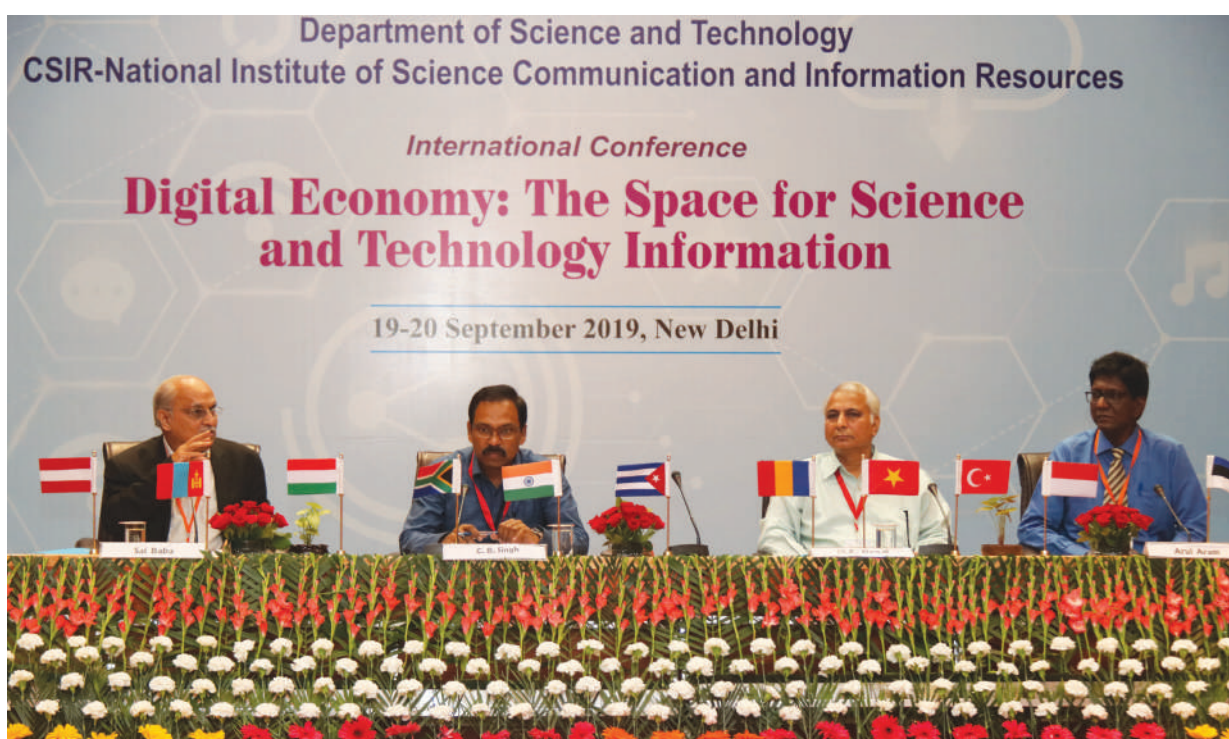
world to deliberate on the important aspects related to the theme. The two-day event had seven sessions deliberating on issues related to information literacy, scientific journals, open digital environment, open access, scientific ethics and so on.

Workshop and Panel Discussion during 28th World Book Fair

CSIR-NISCAIR organised a Science Cartoon Workshop & Competition and Panel Discussion on "Communicating Science to Children" in collaboration with the National Book Trust (NBT), New Delhi, during the 28th New Delhi World Book Fair 2020 on 11 January 2020. The event was attended by more than 100 students from various schools.

5th Edition of the Science Film Festival of India, Goa

To kindle love for science among students and propagation of scientific concepts through the medium of films, the Vidnyan Parishad Goa – a unit of Vijnana Bharati, organised the 5th edition of the Science Film



Science Outreach & New Publications



Festival of India, SCI-FFI 2020 (January 15 to 18, 2020). CSIR-NISCAIR was an organising partner in the event.

CSIR-NISCAIR screened short films based on the research activities in CSIR labs – CSIR-IMTECH, NIO, IHBT, CIMAP, CSIO, IITR, apart from a documentary on CSIR-NISCAIR followed by a discussion on various activities of NISCAIR for bridging the gap between Science and Society. A panel discussion on “Challenges in Science Communication towards Society” was also organised.

National Science Communication Orientation Programme at CSIR-AMPRI, Bhopal

CSIR-National Institute of Science Communication and Information Resources (NISCAIR), New Delhi and CSIR-Advanced Materials and Processes Research Institute (AMPRI), Bhopal, jointly organised a two day National Science Communication Orientation Programme at CSIR-AMPRI, Bhopal during 22-23 August 2019 to contribute towards the creation and diffusion of scientific knowledge.



About 120 scientists, technical officers, and student researchers from across India participated in this programme.

44th ISSN Directors' Meet

CSIR-NISCAIR organised the 44th ISSN Director's meeting from 12 to 15 November 2019. Dr Gaëlle Bequet, Director, ISSN International Centre; Dr S.K. Varshney, Head International Cooperation (Bilateral), DST, GoI and Dr Jagdish Arora, Former Director, Information and Library Network (INFLIBNET Centre) & Adviser National Board of Accreditation were the Chief Guests.



INSTITUTIONAL EVENTS

Earth Day 2019 Celebrations

Earth Day, the global movement that embraces nature and its values, is celebrated by more than a billion people on April 22 every year. CSIR-NISCAIR joined the celebrations by organising a panel discussion on “Weather Forecast to Weather Smart” on 22 April 2019 at Vigyan Suchna Bhavan, S.V. Marg, New Delhi

Dr S.D. Attri, DGM, Agromet Advisory Service Division, India Meteorological

Department, New Delhi and Dr S.K. Varshney, Adviser & Head, International Bilateral Cooperation, Department of Science and Technology, New Delhi, joined the celebration.

National Technology Day Celebrations

National Technology Day was celebrated on 13 May 2019. Dr Unnat Pandit, Director (AIM Program), Atal Innovation Mission, NITI Aayog, and Dr Ariz Ahammed, Managing Director, National Horticulture Board were the Guests in the programme.



World Environment Day Celebrations

World Environment Day (WED) is celebrated on the 5th of June every year and is the United Nation's flagship campaign for raising awareness and encouraging action for environment protection.

In this spirit, on the eve of the World Environment Day, CSIR-NISCAIR organized a painting competition for the wards of CSIR-NISCAIR staff. The competition was for two groups: classes VI to VIII (Group I) and classes IX to XII (Group II).

The World Environment Day Lecture 2019 on "Creating a vibrant culture of innovation and entrepreneurship nationwide"

was delivered by the Chief Guest Shri Ramanan Ramanathan, Mission Director, Atal Innovation Mission (AIM), Govt of India. Shri Ramanathan also gave away the prizes to the participants.

International Day of Yoga Celebrations

On the occasion of the 5th International day of Yoga on 21 June 2019, CSIR-NISCAIR organised a talk by Dr Raakhi Mehra, Ayurveda Yoga Consultant, Technical Course Coordinator, Bharatiya Vidya Bhavan, and Assistant Director AYUSH, and a Yoga demonstration by Shri Yogendra Maurya, Yoga performer.



Science Outreach & New Publications

Gandhi Jayanti Celebrations

On the occasion of the 150th Birth Anniversary of Mahatma Gandhi, CSIR-NISCAIR organised a talk by Dr B.K. Paliwal on “How to achieve goals by infinite powers of the mind: inspiration from Gandhi”.

National Science Day Celebrations

On 28th February 2019, in line with the theme of the National Science Day 2020 – ‘Women in Science’ – CSIR-NISCAIR organised a presentation and a book reading session on the book “The mother of modern botany

in India: A biographical journey of E. Janaki Ammal”.

International Women’s Day Lecture

As part of the International Women’s Day celebrated on 8 March every year, CSIR-NISCAIR and CSIR-NISTADS jointly organised a lecture on “Women Health: It Takes Two to Tango” by Dr Uma Kumar, Professor & Head of the Department of Rheumatology, All India Institute of Medical Sciences (AIIMS), New Delhi, on 5 March 2020.



Jigyasa

In alignment with the agenda of *Jigyasa*, CSIR-NISCAIR, New Delhi, has been implementing the scheme quite vigorously engaging the students with various events from time to time.



During 2019–2020, NISCAIR conducted thirteen JIGYASA programmes with the participation of 1551 students and 121 teachers. Students were engaged with science quiz, slogan competitions on science themes like “Save Water”, “Good Green Deeds”, etc. and showcased the achievements, activities, gave live demonstrations and encouraged active interactions with the scientists and technologists.

As part of CSIR Foundation Day 2019, Open Day was conducted on 27 September 2019 at CSIR–NISCAIR, an exhibit with selected medicinal plants was arranged as a part of “Indian Raw Materials & Products Expo”. Besides, the Inter-school Science Quiz was conducted for students and also encouraged the visiting students and teachers taking a pledge to save Water and Nature in their day-to-day life. Around 650 students from 12 schools, including KV, Raebareli, participated.

Workshop Organised

1. In association with the National Museum of Natural History (NMNH), Ministry of Environment, Forest and Climate Change (MoEFCC), CSIR–NISCAIR hosted a one-day session for “Orientation workshop for Trainee Teachers from the District Institute of Education and Training (DIET), Govt of NCT, RK Puram, New Delhi, on 22 Aug 2019 at our institute. About 100 participants attended the workshop. They were explained about the mission and mandate of CSIR–NISCAIR, taken to various sections, given a demonstration of how we disseminate quality science through our print and online products, and tips on communicating science better and help to spread scientific temper.

2. As part of Continuing Medical Education (CME) Programme for Teachers of Dravyaguna, All India Institute of Ayurveda (AIIA), New Delhi, CSIR–NISCAIR, New Delhi, engaged about 45 participants on 19 November 2019 for the post-lunch session and were explained the entrepreneurship behind Indian herbs, the importance of herbarium specimens, and also demonstrated herbarium techniques. Apart from this, students also attended a lecture on “Research Publication: A must Know-how for career”. Participants visited the Raw Materials, Herbarium & Museum, Delhi (RHMD) and nursery.

Scientific Visit

1. Thirty-five students pursuing 4th year B. Pharm at B.S. Anangpuria Institute of Pharmacy, Alampur, Faridabad, accompanied by six faculties visited the Institute under outreach activity. The visitors were given a brief on the activities of CSIR–NISCAIR and visited the Museum of Indian Raw Material and were explained the importance of Herbarium, authentication of specimens. They also visited the nursery for the ‘touch and feel’ of some medicinally important plants available on campus.
2. About 50 participants comprising a batch of 45 BAMS students and the Faculty of Indian Medical System (FIMS), SGT University, Gurugram, visited RHMD on 29 November 2019. The students were briefed about the role of herbs in Indian Medicine, the importance of herbarium samples, and also demonstrated herbarium techniques. A lecture on “Research

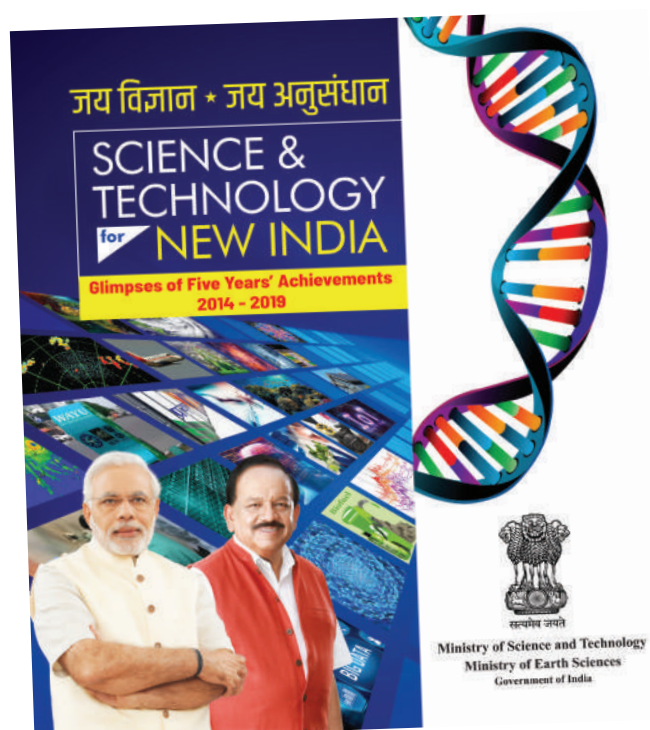
Communication: What, Why, Where & How” for at CSIR-NISCAIR, New Delhi on 29 November 2019 was also organised. Participants visited the nursery as well.

3. Dr Robin C Anderson, Food and Feed Safety Research Unit, Southern Plains Agricultural Research Center, USDA, Texas, visited the RHMD on 29 November 2019 post-lunch. Dr Anderson was explained about the specimen Indian Raw materials (economic plants, animals and minerals) collections of RHMD. He appreciated the valuable collections of the raw materials museum.

PUBLICATIONS

Science and Technology for New India – Glimpses of Five Years’ Achievements 2014-19

CSIR-NISCAIR was entrusted the responsibility of compiling, editing, designing and printing the book *Science and Technology for New India – Glimpses of Five Years’*



Achievements 2014-19, an account of the achievements during the past five years of the institutes and laboratories working under the Ministry of Science & Technology, Ministry of Earth Sciences, Department of Science & Technology and Department of Biotechnology.

Showcasing our Science Labs – Visits of Dr Harsh Vardhan

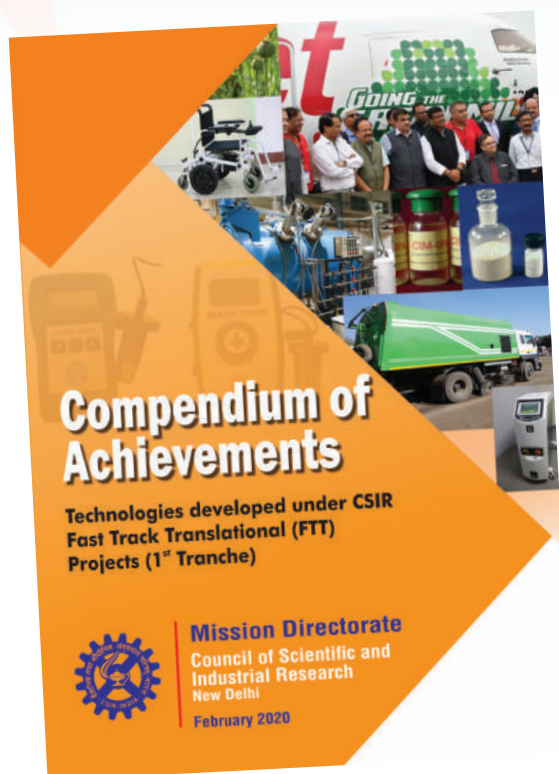
CSIR-NISCAIR was entrusted the responsibility of compiling, editing, designing and printing the book *Showcasing our Science Labs – visits of Dr Harsh Vardhan*. The book contains



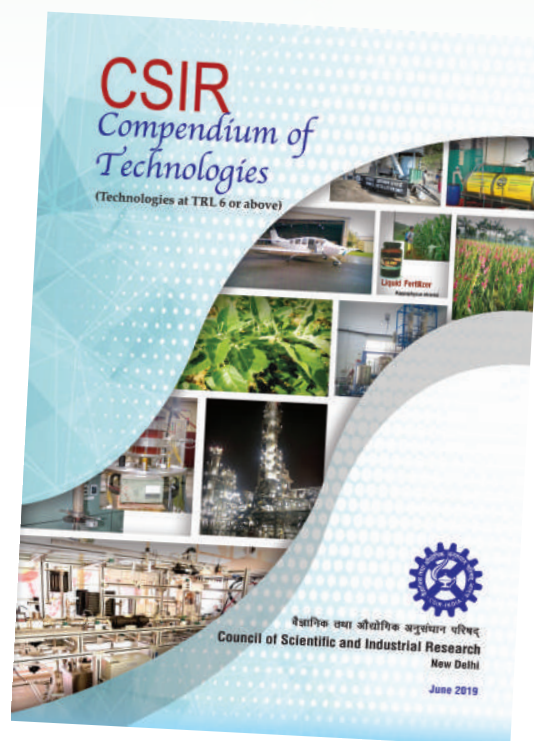
a round-up of the visits of Dr Harsh Vardhan during his stint as the Union Minister of S&T and Earth Sciences.

CSIR Compendium of Technologies

CSIR-NISCAIR designed the *CSIR Compendium*



of Technologies. The compendium contains technologies developed under CSIR Fast Track Translational (FTT) Projects (1st Tranche).



CSIR Compendium of Technologies (TRL more than 6)

CSIR-NISCAIR designed and printed the *CSIR Compendium of Technologies (TRL more than 6)*. The compendium contains technologies developed by CSIR laboratories.



8

»» PhD and
MSc in S&T
Communication
under AcSIR



CSIR-NISCAIR
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PhD and MSc in S&T Communication under AcSIR

C **SIR-NISCAIR** offers doctoral degree and postgraduate courses in “Science & Technology Communication” from August 2018 onwards under the Faculty of Mathematical and Information Sciences, Academy of Scientific & Innovative Research (AcSIR), established in 2010 by an Act of Parliament, “the Academy of Scientific & Innovative Research Act, 2011”, vide The Gazette of India No. 15 dated 7 February 2012 and notified on 03 April 2012.

In CSIR-NISCAIR, the total number of scholars enrolled in PhD is 35 and 14 students have been enrolled in the MSc programme. Students have participated and presented papers in the Indian Science Congress 2020

and the India International Science Festival 2019.

In the course content of MSc (Science & Technology Communication), students are mandated to do an educational internship as a research project work to gain valuable insight and practical experience at various prominent organisations. Currently, nine MSc students are undergoing research project work, with the following institutes:

1. Vigyan Prasar, New Delhi
2. National Institute of Advanced Studies, Bengaluru
3. National Center for Biological Sciences, Bengaluru



9



Rajbhasha



CSIR-NISCAIR
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Rajbhasha

The Rajbhasha Unit of CSIR-NISCAIR ensures the implementation of the official language policy as mentioned in the constitution of India (From Article 343 to 351). Efforts are being made for progressive use of Hindi in the Institute and helping the officials of the Institute in compliance of Acts/Rules/Policies and directions such as the use of bilingual forms and issuance of bilingual orders/circulars/notifications and other Rajbhasha related rules specified in Official Language Acts and as directed by the Department of Official Language (Ministry of Home Affairs), Government of India.

Dak registers in all administrative sections are maintained to keep the record of Hindi work done by individual sections. All the registers/forms/formats used in Finance and Accounts/Administration/Purchase have been made bilingual.

As per Rajbhasha rules, in the year 2019-2020, CSIR-NISCAIR organised four workshops/lectures in every quarter on different topics to promote the use of Rajbhasha in Institute.

In the year 2019, Hindi Maas (Hindi Month) was celebrated in the Institute from 1 September 2019 to 30 September 2019. During this period, different competitions were organised to mark the occasion. The competitions included:

1. Noting & drafting
2. Picture-based story writing
3. Poem recitation
4. Debate
5. News reading
6. Typing in Unicode
7. Quiz



Rajbhasha technical session in progress



Glimpsess of hindi month celebration activities



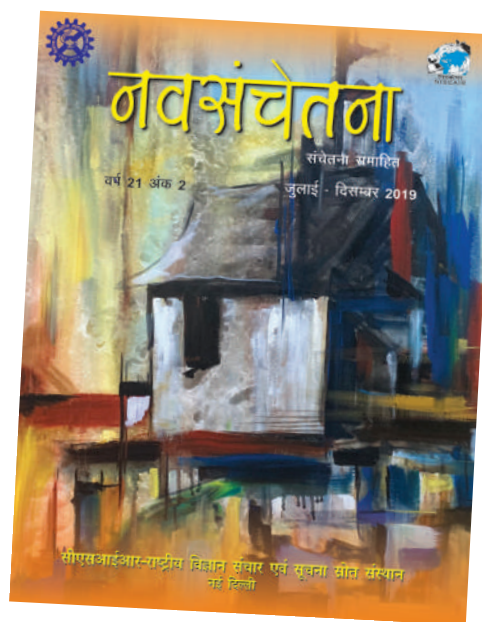
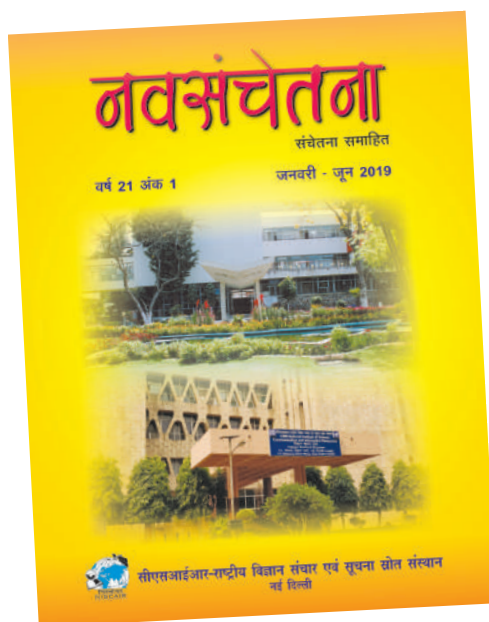
Inauguration of the Hindi Month and CSIR Foundation Day celebration

Apart from these competitions, a programme was also organised on 30 September 2019 as a special event on Hindi Diwas. On this occasion, Shri Indresh Kumar, Chief Patron, Forum for Awareness on National Security was invited as Chief Guest.

Dr M.O. Garg, Former Director General, CSIR; Dr A.K. Singh, Director, IARI; Dr Akshata A. Rao, I.D.A.S, Deputy Integrated Financial Advisor, Ministry of Defence; Dr V. K. Srivastava, Ministry of Home Affairs and Dr Kirti Kale, renowned poetess were invited as the Guests of Honour.



Lighting of lamp to inauguration the Hindi Month and CSIR Foundation Day celebration



Rajbhasha Patrika Nav Sanchetna

On the occasion, prizes were also distributed to winners of different competitions held during the Hindi Maas.

As part of the Rajbhasha initiatives, the institute's Hindi website is regularly updated. The Rajbhasha Unit also publishes a

Rajbhasha Patrika called *Nav Sanchetna*. This is a half-yearly Hindi publication that strives to provide a platform to the staff of the Institute to write features, stories, poems, analytical articles and reports in Hindi. During the period, two issues of the magazine were published.



10

»» Planning,
Monitoring &
Evaluation



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Planning, Monitoring & Evaluation

Planning, Monitoring and Evaluation of various projects of the institute are done with respect to the financial inputs and manpower *vis-à-vis* outputs in terms of external cash flow generated.

A. Projects monitored during 2019-20:

1. CSIR Wide Consortium Access to Online Information Resources (NKRC) Project, sponsored by CSIR.
2. Grant in Aid Project (Project Code: GAP-0114): Affordable medical devices and equipments – priority medical technology needs in India. Funding received from DST, Govt of India.
3. INSA Young Scientist Project: "Unraveling the role of plant growth-promoting rhizobacteria-responsive microRNA(s) in Arabidopsis".
4. Elucidating the role of GRAM-domain containing gene(s) in *Bacillus amyloliquifaciens*-mediated abiotic stress responses in plants, funded by Science and Engineering Research Board (SERB).

B. Scientific Communications: Queries pertaining to the institute received from different ministries/institutes/organisations through the CSIR-Headquarters are responded. Reports on the scientific activities of the institute are also prepared. Timely circulation



of information, guidelines, call for prize and competition, etc. received from CSIR Headquarters and other sources.

C. Parliamentary Questions: Responses to "Parliamentary Questions" specific to scientific matters related to CSIR-NISCAIR are also compiled and conveyed in a time-bound manner.

D. C-DIS: PME division compiles information/data related to CSIR-NISCAIR in standardised formats and uploads them on the C-DIS portal, a centralised data acquisition system at CSIR Hqrs. Monthly report of important activities and significant events, Quarterly research utilisation data, etc. is regularly uploaded on the C-DIS portal.



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»» Print Production and Graphic Arts



CSIR-NISCAIR
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Print Production and Graphic Arts

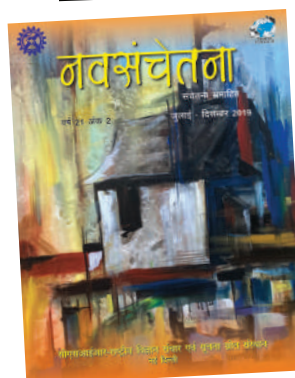
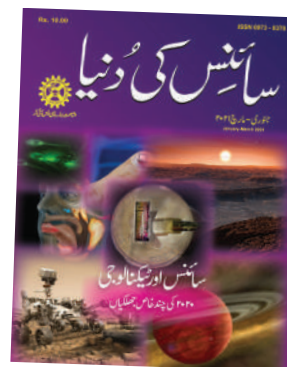
C **SIR-NISCAIR** undertakes designing, formatting and printing of all NISCAIR's in-house publications, comprising Research Journals, Books, Encyclopaedias, Reports, Newsletters, Popular Science Magazines, Posters, Banners, Visiting cards, Pamphlets, Invitation cards, etc. The Institute also undertakes editing, designing and printing of publications from CSIR Headquarters, CSIR Laboratories/ Institutions, other Government departments and ministries. These include Annual Reports, S&T Reports, Newsletters, Bulletins, Journals, Posters, Brochures, Pamphlets, etc.

The planning and execution of all the S&T publications involve initial costing, designing & formatting, copy editing & proofreading, printing & binding, etc. CSIR-NISCAIR undertakes the complete production of the job from the initial manuscript stage to the final printed copies and timely delivery to the clients. Apart from the editing of the manuscript, CSIR-NISCAIR also takes care of the creative graphic designing through some of the latest versions of graphic-designing computer applications of Photoshop, CorelDraw, InDesign, etc. and also page formatting.



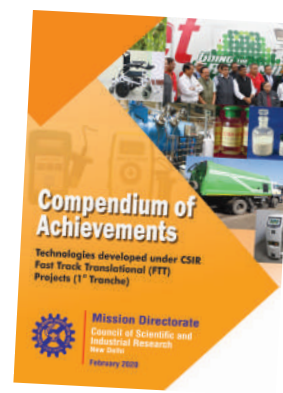
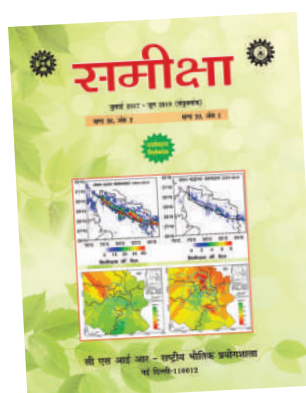
Selected In-house Jobs during 2019-2020

- ◆ Sending complimentary copies of 21 NISCAIR Research/Abstracting Journals
- ◆ NISCAIR Annual Report 2018-19
- ◆ 3 Popular Science magazines – *Science Reporter* (monthly), *Vigyan Pragati* (monthly) and *Science Ki Duniya* (quarterly)
- ◆ Writing pads for training participants
- ◆ Designing of 'Theme Book' of IISF-Vigyanika 2019
- ◆ IISF Vigyanika 2019 certificates
- ◆ Directory of ISSN assigned Indian Serials 2018
- ◆ Quarterly digest *Science Diplomacy*
- ◆ *CSIR News* and *CSIR Samachar* (monthly Newsletters)
- ◆ Hindi magazine "Nav Sanchetna"
- ◆ Designing and formatting of RHMD (quarterly E-Bulletin)
- ◆ Certificate of World Environment Day
- ◆ Karyalaya gyapan & Visitors Pass
- ◆ Winners & runner up certificates of JIGYASA
- ◆ CSIR foundation day invitation cards & envelopes
- ◆ Banners and certificates during various NISCAIR Activities/Events/Lectures, viz. International Women's Day Celebration, World Environment Day, International Book Fair 2020, painting competition certificates for special children along with UNESCO, etc.



Selected Jobs for Outside Clients during 2019-2020

- ◆ Sending complimentary copies of
- ◆ *Science and Technology for New India – Glimpses of Five Years' Achievements 2014-19*
- ◆ *Showcasing our Science Labs – visits of Dr Harsh Vardhan* (scientific exploration)
- ◆ *CSIR Annual Report 2015-16* (bilingual)
- ◆ *CSIR Annual Report 2016-17* (bilingual)
- ◆ *CSIR Annual Report 2017-18* (bilingual)
- ◆ *CSIR-CBRI Annual Report 2017-18*
- ◆ *Samiksha Magazine* of National Physical Laboratory
- ◆ *CSIR-CMERI Annual Report 2017-18*
- ◆ CSIR Brochures
- ◆ *DSIR Annual Report 2018-19* (bilingual)
- ◆ *CSIR Compendium of Technologies*
- ◆ Booklet on Workshop on Indo-German Collaboration in Research and Innovation towards leapfrogging in Frontier Technologies
- ◆ *CSIR Compendium of Technologies* (TRL more than 6)



Revenue Generated during 2019-20		
Department	Number of Jobs	Revenue Received (Rs)
NISCAIR	28	Included by Business Development Division
CSIR/CSIR Labs jobs	14	3486192
Government	1	1139998
Total	43	4626190



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 **Business
Development**



CSIR-NISCAIR
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Business Development

A premier S&T publishing house in the country, CSIR-NISCAIR has an active Business Development Division to promote the reach and increase the subscriber base of the diverse information products of the institute. The editorial personnel of the various publications supplement the Division's efforts through the outreach programme.

The strategies towards business promotion and public awareness for NISCAIR's publications {Primary and Secondary Journals, Popular Science and Scholarly Books, Popular Science Magazines} include:

- ◆ Locating new markets and developing new marketing channels to ensure that the products reach the unreached.
- ◆ Sending complimentary copies of journals regularly to all national libraries, and national and international abstracting agencies for increasing the visibility of the NISCAIR journals.
- ◆ Displaying NISCAIR publications in various exhibitions, seminars and symposia held on science and technology-related topics.
- ◆ Direct marketing of popular science magazines/books in schools by contacting students/school teachers.
- ◆ Direct marketing of NISCAIR popular science publications by contacting various Government Departments/ Education Departments etc.
- ◆ Pursuing an outreach programme for the promotion of scientific journals,

popular science magazines and books.

- ◆ Free online access to all readers of Popular Science Magazines & Research Journals.
- ◆ Receiving payments through NEFT/ RTGS and online modes.

Exhibitions/Seminars/Tour Programmes of Business Development Division during the year 2019-2020

1. Awarded best Exhibitor in Indian Science Congress 2020.
2. Participated in Book Exhibition organised by National Book Trust, Ministry of Human Resource Development, New Delhi.
3. Participated in "National Science Communication Orientation Programme" organized by CSIR-AMPRI, Bhopal during 22-23 August 2019.
4. Participated in NBT "Ujjain Pustak Mela" at Kalidaas Sanskrit Academy, Ujjain, Madhya Pradesh from 31.08.2019 to 08.09.2019.
5. Participated in 8th Bhopal Vigyan Mela-2019, Bhopal at BHEL, Desshera Mela Ground, Bhopal, Madhya Pradesh during 13-16 September 2019.
6. Participated in CSIR-NISCAIR DST-ISCTI International Conference at NASC Complex, Todapur, New Delhi from 19-20 September 2019.



Participation of CSIR-NISCAIR in "Ujjain Pustak Mela" organised by National Book Trust at Ujjain from 31/08/2019 to 8/9/2019

7. Participated in CSIR-NISCAIR Books Exhibition at NASC Complex, Todapur, New Delhi from 29-30 September 2019.
8. Participated in Vigyanika-International Science Literature Festival 2019, Kolkata, West Bengal, from 5-7 November 2019.
9. Participated in CSIR-NISCAIR Books Exhibition at All India Institute of Ayurveda, Sarita Vihar, New Delhi on 22 November 2019.
10. Organised CSIR-NISCAIR Book Exhibition in Bal Sahitya Sadan Programme for Children at City Park, Greater Noida, Uttar Pradesh on 14 December 2019.



Participation of CSIR-NISCAIR in Vigyanika International Science Literature Festival held from 05/11/2019 to 07/11/2019 at Kolkata



Participation of CSIR-NISCAIR in Bal Sahitya Sadan on 14/12/2019 at Greater Noida





Participation of CSIR-NISCAIR in 107th Indian Science Congress held from 3/01/2020 to 07/01/2020 at Bengaluru



Participation of CSIR-NISCAIR in New Delhi World Book Fair 2020 (NDWBF) held from 4-12 January 2020 at Pragati Maidan, New Delhi

11. Participated in 107th Indian Science Congress Exhibition at University of Agricultural Sciences, GKVK Campus, Bangalore, Karnataka during 3-7 January 2020.
 12. Participated in New Delhi World Book Fair-2020 at Pragati Maidan, New Delhi during 4-12 January 2020.
 13. Organized book exhibitions in Kendriya Vidyalaya, Govt. Schools/ Institutions at different places of Delhi-NCR under CSIR-NISCAIR Jigyasa Programme during the financial year 2019-2020.
- iv. *What?* (English)
 - v. *Why?* (English)
 - vi. *Cloning* (English)
 - vii. *Constructing Culture of Science*
 - viii. *Fundamentals of Science & Technology Communication*
 - ix. *Golden Treasury of Science & Technology*

Achievement of Business Development Division during the year 2019-2020

Following 9 CSIR-NISCAIR publications have been selected for inclusion in the *NBT International Cairo Catalogue*:

- i. *Rain Rain Come Again* (English)
- ii. *Water Water Everywhere* (English)
- iii. *How?* (English)

Advertisements

Commercial advertisements related to scientific publications, equipment, technologies, competitions, seminars, symposia, etc. have been received for publication in *Science Reporter*, *Vigyan Pragati*, *Science-ki-Duniya*, and NISCAIR journals. Revenue of ₹ 9.84 Lakh has been generated through advertisements during 2019-2020.

Revenue

The total receipt through the sale of journals, popular science magazines and books, etc. amounted to ₹ 273.29 lakh during 2018-2019.

Sales Revenue	
Name	2019-2020 (₹ in Lakh)
Research Journals	178.82
Books	3.67
Popular Science Magazines	80.96
Advertisements	9.84
Total (₹ in Lakh)	273.29



13

Financial Indicators



CSIR-NISCAIR
Annual Report 2019-20

Financial Indicators

The details of CSIR-NISCAIR's sanctioned budget, External Cash Flow (ECF), and Lab Reserve Fund (LRF) during the year 2019-20 are given in the Table.



S. No.	Item	Amount [₹ in lakh]
		2019-20
1.	Budget (Rev + Cap)	5183.682
2.	Budget (Pensions)	2585.305
3.	External Cash Flow (ECF) Generation	19.420
4.	Lab Reserve Fund (LRF) Generation	31.133
5.	Sales of Priced Publications	274.332



14



Infrastructure



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Infrastructure

As part of infrastructure maintenance, continuous efforts are being made to maintain the buildings with lush green lawns and plants and trees (both flowering and non-flowering) at both the locations (Pusa campus and SV Marg campus). To enhance the working environment, constant maintenance, fumigation and cleaning activities have been taken up during 2019-20. The following works were undertaken at both the campuses during the period:

a. Civil

- i. Alteration to the Director's Office by creating washroom & visitor lounge, etc. at NISCAIR, Pusa Campus
- ii. Providing & fixing of Fountain at NISCAIR, Pusa Campus
- iii. Renovation work in room no. 205 and 226 for AcSIR classes
- iv. Disinfection and chlorination of underground and overhead water tanks
- v. Supervision of AMC of water filters and urinal flushing system.

b. Electrical

- i. Supervision of LED Video Wall
- ii. Supervision of power supply and regular maintenance in both the campuses of the Institute
- iii. Supervision of operation and maintenance of Diesel Generating Sets



- iv. Annual Maintenance Contract of ACs, Business Communication Systems, Lifts, etc.

c. Horticulture

Supervision of maintenance of lawn, gardens, nursery, trees, shrubs, flowers, potting and un-potting of plants in office corridors at NISCAIR Pusa Campus, which covers an approximate area of 10,000 sqm.

d. Security Arrangement

Supervision of complete security arrangement at Pusa Campus & SV Marg Campus.

e. Housekeeping

Supervision of comprehensive work of cleaning and garbage disposal at Pusa Campus & SV Marg Campus.

f. Tender Drafting

Tender drafting of housekeeping and horticulture activities.



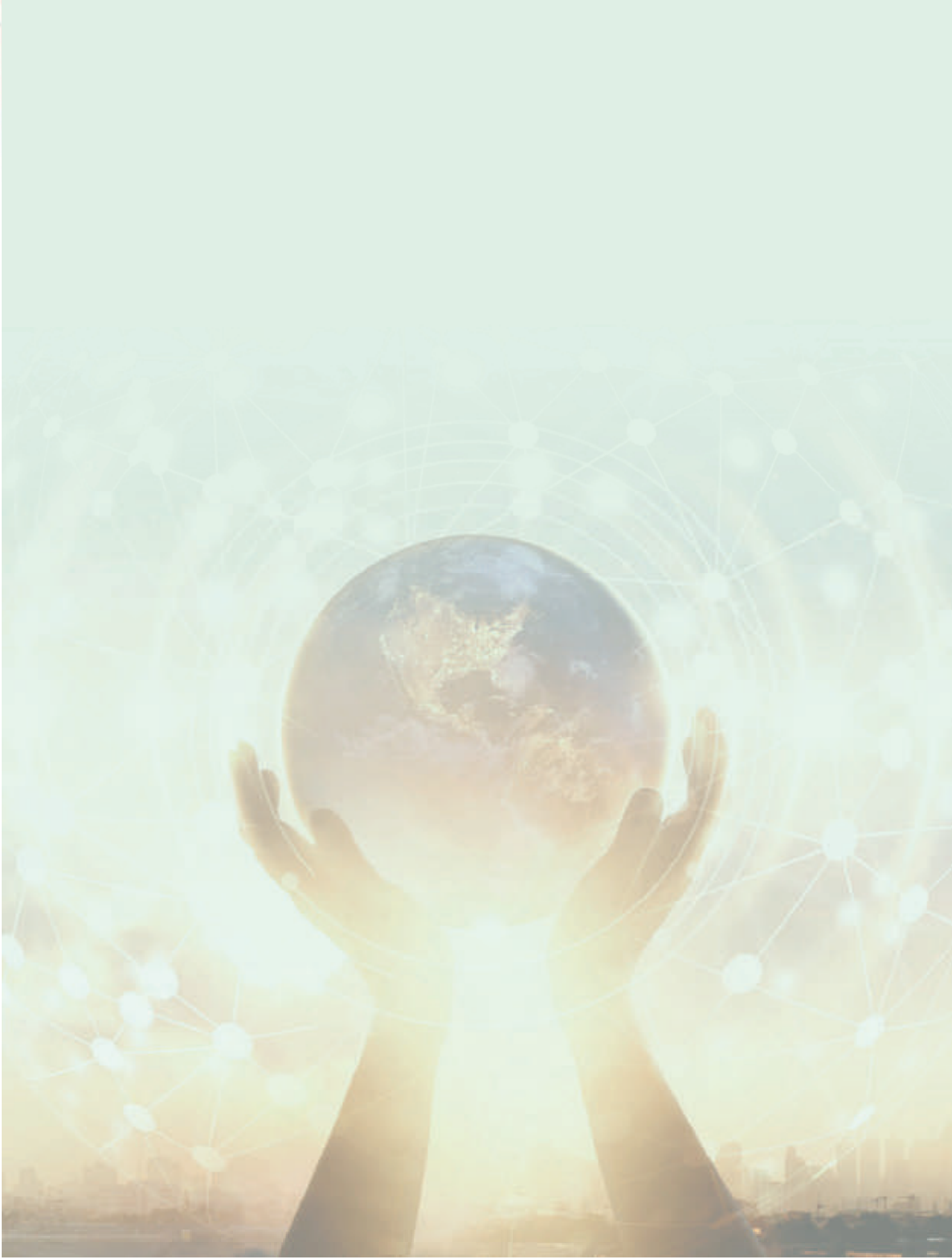
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Appendices



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APPENDIX 1

CSIR-NISCAIR RESEARCH COUNCIL

(16 August 2019–July 2022)

Prof S.K. Joshi Former Director General, CSIR Professor Emeritus, National Physical Laboratory	Chairman
Dr Neeta Verma Director General National Informatics Centre (NIC)	Member
Shri Pranav Khullar Director General of Archives National Archives of India	Member
Dr Ramesh C. Gaur Director (Library & Information) Kalanidhi, Indira Gandhi National Centre for the Arts	Member
Shri Raj Kumar Bharadwaj Director UGC-Educational Media Research Centre IIT Campus, Roorkee	Member
Dr Narendra K. Sehgal Kalinga Prize Winner for Science Popularisation Former Adviser, Department of Science & Technology	Member
Prof. Dinesh Kumar Former Director Institute of Mass Communication in S&T Lucknow University	Member
Dr Jagdish Arora Former Director Information & Library Network (INFLIBNET)	Member
Prof. R.K. Sinha (DG, CSIR Nominee) Director CSIR-Central Scientific Instruments Organisation	Member
Dr Ranjana Aggarwal (Sister Laboratory) Director CSIR-NISTADS	Member
Dr Nisha Mendiratta (Agency Expert) Scientist G & Head National Council for Science & Technology Communication Department of Science & Technology	Member
Incharge, RPPBDD or Nominee CSIR Hqrs	Permanent Invitee
Director, CSIR-NISCAIR	Member
Shri Hasan Jawaid Khan Chief Scientist, CSIR-NISCAIR	Secretary

APPENDIX 2

MANAGEMENT COUNCIL

(1 January 2018 to 31 December 2019)

Dr Manoj Kumar Patairiya , Director, CSIR-NISCAIR	Chairman
Dr D.K. Aswal , Director, CSIR-NPL, New Delhi	Member
Shri Hasan Jawaid Khan , Chief Scientist	Member
Dr D.S. Bedi , Chief Scientist	Member
Shri Mukesh Pund , Sr Scientist	Member
Dr Monika Jaggi , Sr Scientist	Member
Ms Sonali Nagar , Scientist	Member
Shri Pankaj Gupta , Principal Technical Officer	Member
CoFA/FAO	Member
Mrs Veena Jain	Secretary

APPENDIX 3

Participation in Seminars/ Conferences/Workshops/ Training Courses

Singh C.B.

- 'Digital Transformation Journey', FORTINET, New Delhi, on 22 January 2020

Jayasomu R.S.

- Nominated by the Joint Secretary, Ministry of Environment, Forest and Climate Change to attend the 14th session of conference of parties (COP-14) to United Nations Convention to Combat Desertification (UNCCD) scheduled to be held from 29 August to 13 September 2019 in India.
- International Conference "New Horizons in Biotechnology (NHBT) 2019" organised by the Biotech Research Society, India (BRSI) in association with CSIR-National Institute for Interdisciplinary Science and Technology (NIIST) at Thiruvananthapuram, Kerala during 21-24 October 2019.

Jaggi Monika

- Coordinator, Vigyanika-International Science Literature Festival during 5th India International Science Festival (IISF-2019), 05-07 November 2019 at Biswa Bangla Convention Center, Kolkata coordinated by DST and Vigyan Prasar.
- Participated in the training course, 'Train the trainers course on Science Diplomacy' conducted by The American Association for the Advancement of Science (AAAS), Washington, DC, USA, and The World

Academy of Sciences (TWAS) in Trieste, Italy during 26-28 August 2019.

- Participated in the training course "Open Journal Systems (OJS) software for Journal Publishing" workshop organised by Education and Training Division, IHRD, NISCAIR during February 20, 2020.

Lata Charu

- India FlyingLabs two-day intensive workshop on "Co-Creating Sustainable Futures with Drones and AI" at IIT Delhi (16-17 May 2019).
- First National Conference on "Neglected and Underutilized Crop Species for Food, Nutrition, Energy and Environment" at NIPGR, New Delhi (02 August 2019).
- Regional Young Investigator's Meeting at NIPGR, New Delhi (06-07 August 2019).
- 2nd National Frontiers of Science Meeting at Jaipur (06-08 November 2019): Co-chaired the session on "Technologies for Climate Resilient Crops" on November 8th 2019.
- 85th Annual Meeting of the Indian Academy of Sciences at University of Hyderabad, Hyderabad (8-10 November 2019).
- International Conference on "Genomics and Breeding for Crop Improvement and Alumni Meet" at CCS University Meerut (4-6 December).

Jana T.K.

- Jana, T.K. participated/attended the 21st World Congress on Environment Management and Climate Change, organised by Institute of Directors (IOD) at Bengaluru during 4-5 July 2019.

- Jana, T.K. Acted as a resource person on AICTE sponsored QIP-Short Term Course and covered two sessions (Session 1, Research Communication: From Lab to Life; Session 2, Patent Strategies) organised by Department of Humanistic Studies, Indian Institute of Technology (IIT) at Varanasi on 5th December 2019.

Prasanna Kumari N.K.

- Three days workshop-cum-training on “DNA Barcoding for Insect Diagnosis” sponsored by Department of Science and Technology Government of India during 19-21 February 2020 organised by Division of Entomology, ICAR-Indian Agricultural Research Institute, New Delhi.
- International Seminar on Chemical Physics (ISOCP-2K19) UNDER TEQIP Phase-III 16/07/2019. Organised by Department of Engineering Chemistry and Physics, Andhra University, Visakhapatnam.
- International Conference on Recent Advances in Chemical Pharmaceutical and Life processes (RACPL-2019) Organised by the Department of inorganic & analytical chemistry On 13-15 July 2019 at Andhra University Visakhapatnam, New Delhi.
- “IRDA conference- Faculty Academic Enrichment program” organised by New Delhi Institute of Management, Tughlakabad Institutional area, New Delhi on 13 June 2019.
- Two-day National Seminar on Chemical speciation in Biology and Marine environment (CSBME-2019) organised by School of Chemistry, Andhra University, Visakhapatnam in association with Association of Chemistry Teachers (ACT), Mumbai & Andhra Pradesh Akademi of Sciences (APAS) Amaravathi during 29-30 September 2019.

- ICRABB 2020: International Conference on “Recent Advances in Biotechnology and Biochemistry” organised by National Institute of Technology-Raipur, Chhatisgarh during 8-9 January 2020.
- Seminar on ‘Higher Education in the 21st Century India and Mahatma’s Vision’ 17-18 January 2020 organised by BHU, Varanasi.
- International Symposium on Cancer Prevention and Treatment, Jawaharlal Nehru University, New Delhi, February 20-21, 2020.
- Training on “Open Journal Systems (OJS) Software for Journal Publishing” 28 April 2019

Barman Paramananda

- Participated as a panellist in the panel discussion on Challenges in Science Communication towards Society in the 5th edition of the Science Film Festival of India, Goa (15 to 18 January 2020).

Choudhary Shobhna

- One of the coordinators, International Science Film Festival of India (ISFFI) during 5-8 November 2019 in Kolkata.
- Coordinator, 5th Science Film Festival of India (SCI-FFI 2020) during 15-18 January 2020 in Goa (Coordinated the events related to CSIR activities in SCI-FFI 2020).

Nagar Sonali

- Attended seminar organised by CSIR on the “Contributions of S&T to World’s Biggest Democratic Elections” at CSIR-NPL (National Physical Laboratory), New Delhi on 17 June 2019.
- Tech4Seva – A Joint initiative of Unnat Bharat Abhiyan and Vijnana Bharti), a three day National Workshop during 10-12 August 2019 at IIT Delhi.

- Science Talk and Film Screening: Dystopian Futures of the Past – Artificial Intelligence and its Social Impact through Film and Literature on 13 September 2019 organised by The German Centre for Research and Innovation – DWIH New Delhi.
- 2020 Annual Conference of the Indian National Association of the Club of Rome during 16–17 January 2020.
- The formal flag-in ceremony of “Ganga Aamantran Abhiyan” organised on 13 March 2020, New Delhi.

Meena Arvind

- Training on “Open Journal Systems (OJS) Software for Journal Publishing” 28 April 2019

Kumar Pawan

- ‘Digital Transformation Journey’, FORTINET, New Delhi on 22 January 2020

Lectures, Papers, Books, Talks, Honours & Awards, etc.

Invited Talks/Lectures

Jayasomu R.S.

- “Losing Research Data to Predatory Publishers: Innocence or Ignorance?” at “Tutorial Classes for SC students-ICAR-I” organised by the Department of Agronomy, Punjab Agricultural University (PAU), Ludhiana, Punjab on 13 March 2020.
- “Writing Research Papers – Clues from an Editor’s Desk” at “Tutorial Classes for SC students-ICAR-I” organised by the Department of Agronomy, Punjab Agricultural University (PAU), Ludhiana, Punjab on 13 March 2020.
- “Punjab Agricultural University: Academic Standing” at “Tutorial Classes for SC students-ICAR-I” organised by the

Department of Agronomy, Punjab Agricultural University (PAU), Ludhiana, Punjab on 13 March 2020.

- “Academic output in Smart Agriculture: Indian vs. Global Scenario” at the UGC SAP National Seminar on “Climate Smart Agriculture for Sustaining Crop Productivity and Improving Livelihood Security” organised by Dept of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Tamil Nadu during 27–28 February 2020.
- “Technical Report Writing: Clues from the Editor’s desk” at the Training Programme on Best Practices in Laboratory Management for BCSIR officials organised by CSIR-HRDC, Ghaziabad during 24–28 February 2020.
- “Cancer Prevention & Treatment: an overview of research output in last five years” at the 13th International Symposium on “Cancer Prevention and Treatment” organised by School of Life Sciences, Jawaharlal Nehru University, New Delhi during 20–21 February 2020.
- “Writing Research Papers: Clues from an Editor’s Desk” at the National Workshop on “Science Writing and Research Communication” organised by the Dept of Botany and Biotechnology, R.D. and S.H. National College, Bandra, Mumbai during 17–19 February 2020.
- “Scholarly Communication: What, When, Where & How” at the National Workshop on “Science Writing and Research Communication” organised by the Dept of Botany and Biotechnology, R.D. and S.H. National College, Bandra, Mumbai during 17–19 February 2020.
- “Publishing Your Research Work: Clues from an Editor’s Desk” organised by Sri Venkateswara College of Engineering, Sriperumbudur, Tamil Nadu on 31 January 2020.

- “Research output in Biodiversity and Ecological Restoration: An overview” at the “International Conference on Biodiversity and Ecological Restoration (ICBER-2020)” organised by the Department of Advanced Zoology and Biotechnology, Quaid-e-Millath Government College for Women, Chennai during 30-31 January 2020.
- “Physical Chemistry with specific reference to Catalysis, Sensors and Energy Materials: A Scientometric Analysis” Prof. Dr MJ Nanjan Endowment Lecture at the International Conference on Advances in Chemistry With Specific Reference to Catalysis, Sensors, Drug Delivery and Energy Materials (ICACSEM 2020) organised by the Department of Physical Chemistry, School of Chemical Science, University of Madras, Guindy Campus, Chennai, Tamil Nadu during 9-10 January 2020.
- “Research Communication: What, Why, Where & How” for BAMS Students of the Faculty of Indian Medical System (FIMS), SGT University, Gurugram at CSIR-NISCAIR, New Delhi on 29 November 2019.
- “Publishing a Research Paper: Some Basics” at the Workshop on Science Communication organised by School of Biosciences, MACFAST (Mar Athanasios College for Advanced Studies Tiruvalla), Kerala on 24 November 2019.
- “Research Publication: A must Know-how for career” at the CME Programme for Teachers of Dravyaguna, All India Institute of Ayurveda (AIIA), New Delhi on 19 November 2019 at CSIR-NISCAIR, New Delhi.
- Scholarly Communication: What, When, Where & How” organised by Govt. College of Engineering, Tirunelveli, Tamil Nadu on 14 October 2019.
- “Science Dissemination: Indian Scenario” at the “Science & Humanities Association Inauguration” Govt College of Engineering, Tirunelveli, Tamil Nadu on 14 October 2019.
- “CSIR-NISCAIR: Disseminating Science Since Decades” at the Orientation Workshop for Trainee Teachers “Educating Science through non-formal Institutions” from the District Institute of Education and Training, Govt of NCT, RK Puram, New Delhi, organised by the Natural Museum of Natural History (NMNH), Ministry of Environment, Forest and Climate Change during 21-22 August 2019
- “Scholarly Communication: Few Clues from Editor’s Desk” at the Training Course on Science Communication conducted by CSIR-NISCAIR, New Delhi during 08-12 July 2019
- “CSIR-NISCAIR, A Premier Player in Science Communication” at the Training Course on Science Communication conducted by CSIR-NISCAIR, New Delhi, during 08-12 July 2019
- “CSIR-NISCAIR: Publishing Quality Science”, at CSIR-NISCAIR on the occasion of the visit of a batch of students from School of Biosciences, MACFAST (Mar Athanasios College for Advanced Studies Tiruvalla), Kerala on 11 April 2019.

Pund Mukesh

- Workshop on “Dspace: Administration, Authorization and Customization” jointly organised by Central University of Himachal Pradesh and CSIR-NISCAIR at Central University of Himachal Pradesh, Dharamshala, 13-15 May 2019.
- Workshop on Continuous Professional Development Programme for the Library Staff of NCERT and its Constituent Libraries “System Settings IP Address & Other KOHA administrative settings” and “Customization of KOHA” organised by NCERT at NCERT, New Delhi, 27-31 January 2020.

- Seminar on Innovation and Sustainable Library Services in the Digital Era “Open Source Software (OSS) for Data Management in Research and Development” organised by CSIR-CFTR, Mysore, 04 February 2020.
- Workshop on “Science Writing & Research Communication” “Role of Information Technology in Science Communication” jointly organised by R.D. and S.H. National College, Bandra and CSIR-NISCAIR at R.D. and S.H. National College, Bandra, Mumbai, 18 February 2020.
- Workshop on “Science Writing & Research Communication”, “Social Media Communication” jointly organised by R.D. and S.H. National College, Bandra and CSIR-NISCAIR at R.D. and S.H. National College, Bandra, Mumbai, 19 February 2020.

Burde Sanjay

- Invited talk on “Open Journal Systems” in Faculty Development Programme on Information Technology Applications in Libraries on 16th October 2019 organised by Indira Gandhi National Centre for Arts (IGNCA), New Delhi
- Organised training on “Open Journal Systems (OJS) software” at CSIR-NEERI, Nagpur, on 28 and 29 November 2019
- Organised training on “Open Journal Systems (OJS) Software for Journal Publishing” for Editors & Editorial Staff of NISCAIR journals on 20 February 2020

Jana T.K.

- Jana, T.K. invited talk titled ‘Patent’ on a workshop titled “Science Media Research: Science Creative’s & Media School for Scientist and Media at Jaipur on 9 June 2019.

Prasanna Kumari N.K.

- Effect of acetonitrile on the protein stability of Crytolepain at acidic pH.
- International Seminar on Chemical Physics (ISOCP-2K19) UNDER TEQIP Phase-III 16/07/2019. Organised by Department of Engineering Chemistry and Physics, Andhra University, Visakhapatnam.
- Protein folding: a perspective for Biology, Medicine and Biotechnology broadcast on 9 May 2019, All India Radio, New Delhi.

Lata Charu

- Delivered two INSA Remote Area Lectures one each at Upgraded high schools of Ranchi and Khunti, Jharkhand (9-10 August 2019).
- Co-chaired the session on “Technologies for Climate Resilient Crops” in the 2nd National Frontiers of Science Meeting at Jaipur on 08 November 2019 and also delivered an invited talk on “Millets: the climate-resilient crops for food and nutritional security” in this session.
- Delivered an invited talk on “Plant growth-promoting rhizobacteria for abiotic stress tolerance and agricultural sustainability” in the 85th Annual Meeting of the Indian Academy of Sciences at University of Hyderabad, Hyderabad on (10 November 2019).
- Delivered an invited talk on “An understanding on the *Bacillus amyloliquifaciens*-rice cooperation for abiotic stress tolerance” in the International Conference on “Genomics and Breeding for Crop Improvement and Alumni Meet” at CCS University Meerut (06 December 2019).

Meena Arvind

- Invited Speaker at 13th International Symposium on “Cancer Prevention and Treatment”. organised by Jawaharlal Nehru University (JNU) at New Delhi on 20-21 February, 2020.

Kapil Shubhada

- Invited Radio talk on “Different Scientific updates worldwide” at All India Radio on 15 April 2019
- Invited Radio talk on “Different Scientific updates worldwide” at All India Radio on 3 June 2019
- Invited Radio talk on “Mission Chandrayaan-2” at All India Radio on 12 September 2019
- Invited Radio talk on Scientific Breakthroughs of the Year 2019 at All India Radio on 4 December 2019
- Invited lecture on “Effective Science Writing in Hindi” at Department of Biotechnology, 6 March 2020
- Anchored more than 50 Science Programmes such as *Yeh Hai India*, *Sehat Ke Rang*, *Prakrati Ke Sang*, *Shabd Yatra*, *Krishi Parikrama*, for Doordarshan on different channels — DD Kisan, DD Urdu, DD Bharti. Besides also did Voice Over and Script Writing for various science programmes for Doordarshan.
- Anchored inaugural of 28th edition of the New Delhi World Book Fair 2020, organised on 4 January 2020 by HRD minister Ramesh Pokhriyal 'Nishank' at Pragati Maidan.

Paper Published

Choudhary Shobhna

- Nonlinear optical and dielectric properties of TiO₂ nanoparticles incorporated PEO/PVP blend matrix-based multifunctional polymer nanocomposites Ram Jeewan

Sengwa, **Shobhna Choudhary** and Priyanka Dhatarwal. *Journal of Materials Science: Materials in Electronics*, 30 (2019) 12275-12294.

Jayasomu R.S.

(Abstracts published in National & International conferences)

- NK Prasanna Kumari* Arvind Meena, **RS Jayasomu** & Manohar Pathak “Mahamana’s vision on women empowerment in India-A Scientometric analysis”. Abstract published in International BHU Alumni Meet 2020 (IBAM 2020) & Seminar on ‘Higher Education in the 21st Century India and Mahamana’s Vision’ organised by BHU, Varanasi during 17-18 January 2020.
- NK Prasanna Kumari*, Manohar Pathak* & **RS Jayasomu**, “India’s International Collaboration in Pharmaceutical Research”. Scientific Abstract published at International Conference on Recent Advances in Biotechnology and Biochemistry, January 8-9, 2020, organised by Department of Biotechnology, National Institute of Technology Raipur.
- Manohar Pathak, Bilqeesa Bhat, Arvind Meena, NK Prasanna Kumari & **RS Jayasomu***, “Academic output in Smart Agriculture: Indian vs. Global Scenario” Scientific Abstract published at “National Conference on CSASCPILS-2020 UGC SAP Climate Smart Agriculture for Sustaining Crop Productivity and Improving Livelihood Security”, 27-28 February 2020 at Annamalai University organised by Department of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Tamil Nadu.
- Bilqeesa Bhat, Manohar Pathak, Aaqib Hamid, Umer Hamid, Arvind Meena, NK Prasanna Kumari, Sanjay Burde & **RS**

Jayasomu*, “Cancer Prevention and Treatment: An overview of Research publications from last five years”. Scientific Abstract published at 13th International Symposium on Cancer Prevention and Treatment, February 20–21, 2020 School of Life Sciences, Jawaharlal Nehru University, New Delhi.

- Manohar Pathak, Bilqeesa Bhat, Arvind Meena, NK Prasanna Kumari & **RS Jayasomu***, “Research output in Biodiversity and Ecological Restoration: An overview”. Scientific Abstract published at International Conference ICBER-2020, “Biodiversity and Ecological Restoration” January 30–31, 2020, organised by the Department of Advanced Zoology and Biotechnology, Quaid-e-Millath Government College for Women, Chennai, Tamil Nadu.
- Manohar Pathak, Arvind Meena, NK Prasanna Kumari Pushpanjali Tripathi, Manju D Choudhary & **RS Jayasomu***, “India’s Progress in Physical Chemistry with specific reference to Catalysis, Sensors and Energy Materials: A Scientometric Analysis”. Scientific Abstract published at International Conference ICACSEM-2020 jointly organised by Department of Physical Chemistry, the University of Madras and The Society of Polymer Science (SPSI), Chennai Chapter during 9–10 January 2020

Prasanna Kumari N.K.

(Abstracts published in National & International conferences)

- **NK Prasanna Kumari***, Arvind Meena, RS Jayasomu & Manohar Pathak, “Mahamanda’s Vision on Women Empowerment in India-A Scientometric analysis”. Abstract published in International BHU Alumni Meet 2020 (IBAM

2020) & Seminar on ‘Higher Education in the 21st Century India and Mahamanda’s Vision’ organised by BHU, Varanasi during 17–18 January 2020.

- **NK Prasanna Kumari** “Impact of Respirable Dusts on Miner’s Life Expectancy – Does Climate Change Plays any Role? Scientific Abstract published at National Conference on Issues and challenges in water treatment and allied research for the sustainable environment at IIT Guwahati (WATER2020) organised by Center for Environment, Indian Institute of Technology-Guwahati, Assam during 23–25th January 2020.
- **NK Prasanna Kumari***, Manohar Pathak* & RS Jayasomu, “India’s International Collaboration in Pharmaceutical Research”. Scientific Abstract published at International Conference on Recent Advances in Biotechnology and Biochemistry January 8–9, 2020, organised by Department of Biotechnology, National Institute of Technology Raipur.
- Manohar Pathak, Bilqeesa Bhat, Arvind Meena, **NK Prasanna Kumari** & RS Jayasomu*, “Academic output in smart agriculture: Indian vs. Global Scenario” Scientific Abstract published at “National Conference on CSASCPILS-2020 UGC SAP Climate Smart Agriculture for Sustaining Crop Productivity and Improving Livelihood Security” at Annamalai University organised by Department of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Tamil Nadu during 27–28 February 2020.
- Bilqeesa Bhat, Manohar Pathak, Aaqib Hamid, Umer Hamid, Arvind Meena, **NK Prasanna Kumari**, Sanjay Burde & RS Jayasomu*, “Cancer Prevention and Treatment: An overview of Research publications from last five years”. Scientific

Abstract published at 13th International Symposium on Cancer Prevention and Treatment 20-21 February 2020 School of Life Sciences, Jawaharlal Nehru University, New Delhi Venue at JNU Convention Centre.

- Manohar Pathak, Bilqeesa Bhat, Arvind Meena, **NK Prasanna Kumari** & RS Jayasomu*, "Research output in Biodiversity and Ecological Restoration: An overview". Scientific Abstract published at International Conference ICBER-2020, "Biodiversity and Ecological Restoration" January 30-31, 2020, organised by the Department of Advanced Zoology and Biotechnology, Quaid-e-Millath Government College for Women, Chennai, Tamil Nadu.
- Manohar Pathak, Arvind Meena, **NK Prasanna Kumari**, Pushpanjali Tripathi, Manju D Choudhary & RS Jayasomu*, "India's Progress in Physical Chemistry with specific reference to Catalysis, Sensors and Energy Materials: A Scientometric Analysis". Scientific Abstract published at International Conference ICACSEM-2020 jointly organised by Department of Physical Chemistry, University of Madras and The Society of Polymer Science (SPSI), Chennai Chapter during 9-10 January 2020.

Lata Charu

- Tiwari S, Shweta S, Prasad M, **Lata C*** (2020) Genome-wide investigation of GRAM-domain containing genes in rice reveals their role in plant-rhizobacteria interactions and abiotic stress responses. *International Journal of Biological Macromolecules*, 156:1243-1257. *Corresponding author.
- Chauhan PS[#], **Lata C[#]**, Tiwari S, Chauhan AS, Mishra SK, Agrawal L, Chakrabarty D,

Nautiyal C (2019) Transcriptional alterations reveal *Bacillus amyloliquefaciens*-rice cooperation under salt stress. *Scientific Reports* 9(1):11912. #Equal contribution.

- Jatan R and **Lata C*** (2019) Role of microRNAs in abiotic and biotic stress resistance in plants. *Proceedings of the Indian National Science Academy* 85: 553-567. *Corresponding author.

Meena Arvind

(Abstracts published in National & International conferences)

- NK Prasanna Kumari*, **Arvind Meena**, RS Jayasomu & Manohar Pathak, "Mahamana's Vision on Women Empowerment in India-A Scientometric analysis". Abstract published in International BHU Alumni Meet 2020 (IBAM 2020) & Seminar on 'Higher Education in the 21st Century India and Mahamana's Vision' organised by BHU, Varanasi during 17-18 January 2020.
- Manohar Pathak, Bilqeesa Bhat, **Arvind Meena**, NK Prasanna Kumari & RS Jayasomu*, "Academic output in smart agriculture: Indian vs. Global Scenario" Scientific Abstract published at "National Conference on CSASCPILS-2020 UGC SAP Climate Smart Agriculture for Sustaining Crop Productivity and Improving Livelihood Security" at Annamalai University organised by Department of Genetics and Plant Breeding, Faculty of Agriculture, Annamalai University, Tamil Nadu during 27-28 February 2020.
- Bilqeesa Bhat, Manohar Pathak, Aaqib Hamid, Umer Hamid, **Arvind Meena**, NK Prasanna Kumari Sanjay Burde & RS Jayasomu*, "Cancer Prevention and Treatment: An overview of Research publications from last five years". Scientific Abstract published at 13th International

Symposium on Cancer Prevention and Treatment February 20–21, 2020 School of Life Sciences, Jawaharlal Nehru University, New Delhi Venue at JNU Convention Centre.

- Manohar Pathak, Bilqeesa Bhat, **Arvind Meena**, NK Prasanna Kumari & RS Jayasomu*, “Research output in Biodiversity and Ecological Restoration: An overview”. Scientific Abstract published at International Conference ICBER–2020, “Biodiversity and Ecological Restoration” January 30–31, 2020, organised by the Department of Advanced Zoology and Biotechnology, Quaid-e-Millath Government College for Women, Chennai, Tamil Nadu.
- Manohar Pathak, **Arvind Meena**, NK Prasanna Kumari Pushpanjali Tripathi, Manju D Choudhary & RS Jayasomu*, “India’s Progress in Physical Chemistry with specific reference to Catalysis, Sensors and Energy Materials: A Scientometric Analysis”. Scientific Abstract published at International Conference ICACSEM–2020 jointly organised by Department of Physical Chemistry, University of Madras and The Society of Polymer Science (SPSI), Chennai Chapter during 9–10 January 2020.

Bharti Meetali

- **Bharti Meetali** and Bharti Deepshikha (2020) Artificial Intelligence Impacting Agriculture, Soil and Water Conservation Newsletter, 15(1), pp7–8, January–March 2020, ISSN:0975–4059.

Kapil Shubhada

- Article on “Digital Farming: Taking Farming to Another Level,” published in *12th Edition of Agriculture Yearbook 2019* launched during 3rd Global Agriculture Summit 2019 on 5–8 November 2019 at New Delhi.

Nagar Sonali

- Preeti Lata and **Sonali Nagar** (2019), Nutraceuticals and Their Therapeutic Benefits. Abstract published in *Conference Proceedings* of UGC Sponsored National Conference on Food Safety, Nutritional Security and Sustainability. ISBN: 978–81–942875–0–6, pp 302.

Books/Chapters Published

Lata Charu

- a) Tiwari S and **Lata C*** (2019) Genome Engineering in Rice: Applications, Advancements and Future Perspectives. In: *Molecular Approaches in Plant Biology and Environmental Challenges*; Singh S, Upadhyaya SK (Eds.) Springer Nature pp 323–337 ISBN: 978–981–15–0689–5. *Corresponding author.
- b) Tiwari S, Prasad V and **Lata C*** (2019) *Bacillus*: Plant growth-promoting bacteria for sustainable agriculture and environment. In: *New and Future Developments in Microbial Biotechnology and Bioengineering*; Singh J S and Singh DP (Eds.), Elsevier pp 43–55 ISBN: 9780444641915. *Corresponding author.

Membership of Committees

Singh C.B.

- Member of the committee for review promotion of Group ‘A’ S&T officers for promotion from the grade of Scientist-B for promotion to the grade of Scientist-C in National Informatics Centre, Ministry of Electronics and Information Technology (MeitY).

Jayasomu R.S.

- Prof. Dr MJ Nanjan Endowment Lecture at the International Conference on

Advances in Chemistry With Specific Reference to Catalysis, Sensors, Drug Delivery and Energy Materials (ICACSEM 2020) organised by the Department of Physical Chemistry, School of Chemical Science, University of Madras, Guindy Campus, Chennai, Tamil Nadu during 9-10 January 2020.

- Chaired a scientific session at the International Conference “New Horizons in Biotechnology (NHBT) 2019” organised by the Biotech Research Society, India (BRSI) during 21-24 October 2019.
- Chief Guest, International Conference ICBER-2020, “Biodiversity and Ecological Restoration” January 30 & 31 2020, organised by the Department of Advanced Zoology and Biotechnology, Quaid-e-Millath Government College for Women, Chennai, Tamil Nadu.
- Chief Guest at the “Science & Humanities Association Inauguration” Govt College of Engineering, Tirunelveli, Tamil Nadu
- Member, Assessment Committee, ICMR-National Institute of Malaria Research (NIMR), New Delhi

Pund Mukesh

- Chairman, Selection Committee for the post of Assistant Manager (IT) under ISTI Project, Vigyan Prasar, NOIDA.
- Member, Selection Committee for recruitment to the post of Sr Scientist for CSIR-CMERI, Durgapur.
- Member, Assessment Committee for assessment promotion of Technical staff of CSIR-NEERI, Nagpur.
- Member, Selection Committee to engage project staff (IT, Patents & Ayurveda) for “Digitizing Traditional Indian Systems of Medicine (MLP0001)” project at CSIR-TKDL.
- Member, Task Force Committee for

“Digitising Traditional Indian Systems of Medicine (MLP001)” project at CSIR-TKDL.

- Member, Task Force Committee for “Modernization and upgradation of Information Technology infrastructure of Traditional Knowledge Digital Library Unit (MLP0003)” project at CSIR-TKDL.
- Chairman, Technical & Purchase Committee for empanelment of Intellectual Property firms at CSIR-IPU, New Delhi.
- Chairman, Technical Sub Committee evaluation of bids at level 2 for Empanelment of IP firms at CSIR-IPU, New Delhi.
- Chairman, Technical & Purchase Committee for Training Program on CSIR Manual of Procurement of Goods 2019 at CSIR-NPL, New Delhi.
- Member, Technical & Purchase Committee for “Modernization and Upgradation of Information Technology infrastructure of Traditional Knowledge Digital Library Unit (MLP0003)” project.

Jaggi Monika

- Member, Planning and Review Committee, DST-NIAS-TWAS Workshop on Science Diplomacy, India.
- Member, Committee to review applications for the 2020 AAAS-TWAS Summer Course on Science Diplomacy to be held from 10 to 13 July 2020 in Trieste, Italy.

Honours & Awards

Barman Paramananda

- Completed the necessary formalities for the India Science Media Fellowship 2019 awarded by the DBT/Wellcome Trust India Alliance (India Alliance) and Nature India. Dr Barman received this fellowship in April 2019.

Jaggi Monika

- Subject expert, reviewed research proposal received under the BIG (Biotechnology Ignition Grant) scheme, one of the leading programmes of BIRAC, Department of Biotechnology, Govt of India.

Prasanna Kumari N.K.

- Member, Scientific Advisory Group, Department of Biochemistry, College of Medicine & JNM Hospital, WBUHS, Kolkata, India

Lata Charu

- Associateship of the Indian Academy of Science (2019–2022)

- Implementation of SERB Early Career Research Award at CSIR-NISCAIR (2019–2021).
- INSA sponsored “Research support for Young Scientist” at CSIR-NISCAIR (2019–2020).
- Implementation of CSIR-Grant of Special Honorarium @7500/- per month till the age of 45 years at CSIR-NISCAIR.

Dissertations Guided

Lata Charu

- Ms Shalini Tiwari has been awarded Doctor of Philosophy in Botany from the University of Lucknow under the guidance of Dr Charu Lata in the annual year 2019–20.

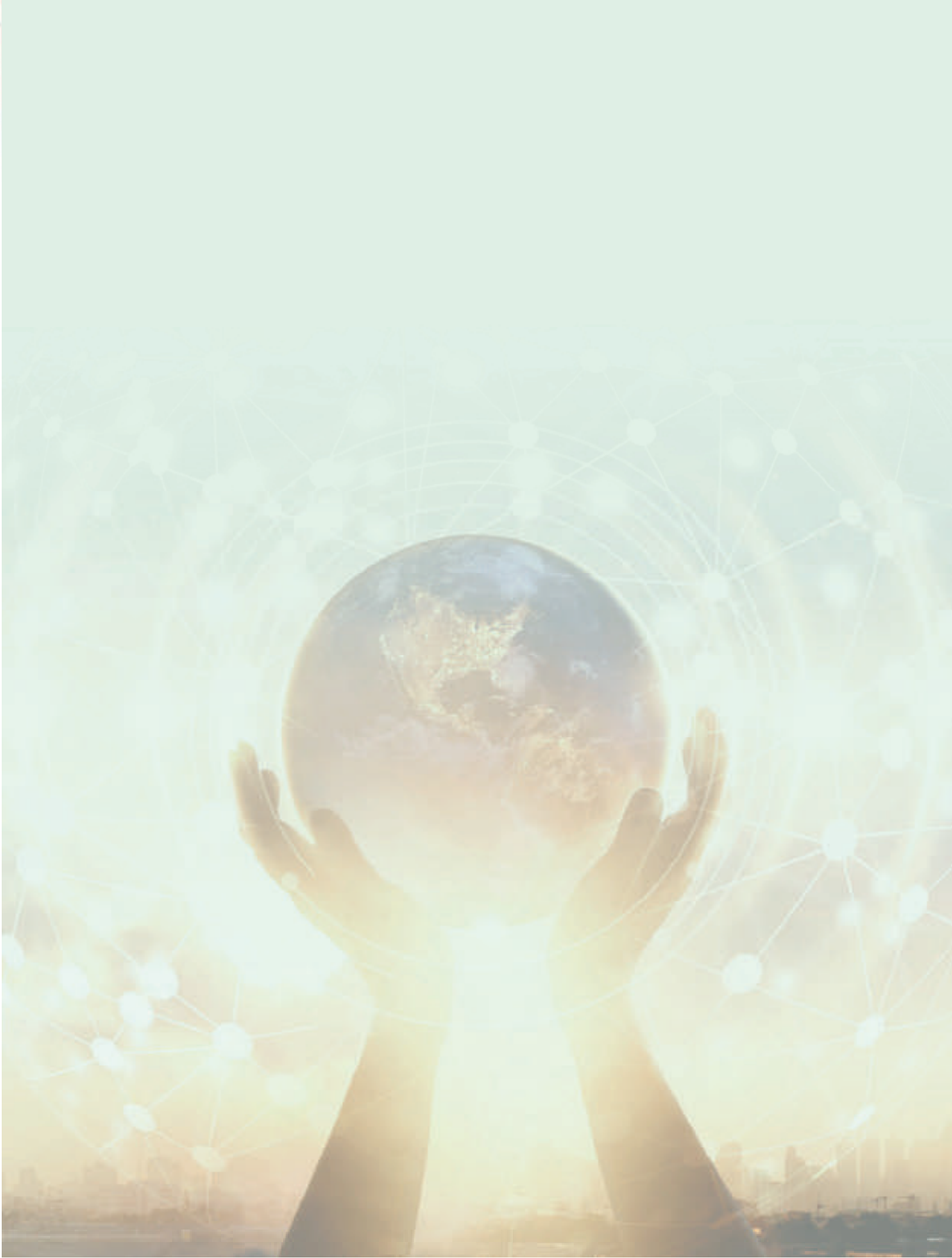




Important Contacts



CSIR-NISCAIR
Annual Report 2019-20



Important Contacts

Name	Designation	Division	Phone No./Email
Dr Ranjana Aggarwal	Director		Phone: +91-11- 25846024, 25848385 (Vigyan Sanchar Bhawan), +91-11- 26517059, 26515837 (Vigyan Suchna Bhawan) Fax: +91-11-25846301, E-mail: director@niscair.res.in
Mr Hasan Jawaid Khan	Chief Scientist (Scientific Coordinator)	International & Popular Science Division	Phone: 91-11-25848702, 91-11- 25846301, 04-7 ext. 361 E-mail: hjk@niscair.res.in
Mr R.S. Jayasomu	Chief Scientist	Natural Resources & Outreach Division	Phone: 91-11- 25841781, 91-11-25841289, 91-11- 25846301, 04-7 ext. 268 E-mail: somu@niscair.res.in
Mr C.B. Singh	Sr. Principal Scientist	Infrastructure & Information Technology Division	Phone: 91-11- 25846014, 91-11- 25846301, 04-7 ext. 241 E-mail: cbsingh@niscair.res.in
Ms Neelu Srivastava	Sr. Principal Scientist	Print & Production Division	Phone: 91-11-25841846, 91-11- 25846301, 04-07 ext. 267 E-mail: neelu@niscair.res.in
Dr. G. Mahesh	Sr. Principal Scientist	Information Resources & Media	SV Marg-NSL: 91-11-26863759 SV Marg-Training: 91-11- 26863617, 91-11- 26567818, 91-11- 26560141, 43, 65 Ext. 126 & 201 E-mail: gmahesh@niscair.res.in
Mr Mukesh Pund	Sr. Principal Scientist	Human Resource Development Division	91-11-26863617, 91-11- 26560141, 43, 65 Ext. 126 & 201 E-mail: mukeshpund@niscair.res.in
Dr. B. L. Garg	Sr. Principal Scientist (Management Coordinator)	PME, Audio-Visual Media, Research & Development	Phone: 91-11-25846301, 04-7 ext. 258, 235, 248 E-mail: blgarg@niscair.res.in
Dr. N. Majumdar	Sr. Principal Scientist	Research Journals	Phone: 91-11- 25846301, 04-7 ext. 255 E-mail: majumdar@niscair.res.in
Ms Charu Verma	Sr. Principal Scientist	Business Development	Phone: 91-11- 25841439, 91-11- 25846301, 04-07 ext. 280 E-mail: charu_verma@niscair.res.in
Mrs. Veena Jain	Controller of Administration		Phone: 91-11-25849787 E-mail: coa@niscair.res.in
Mr Anil Chandra Gairola	Finance & Accounts Officer		Phone: 91-11-25841807 E-mail: fao@niscair.res.in
Mr Sunil Khanna	Stores & Purchase Officer		Phone: 91-11-25846301, 04-7 ext. 314 E-mail: spo@niscair.res.in

