

# Indian Journal of Traditional Knowledge

## Chief Editor

Dr H R Nagendra  
Chancellor  
S-VYASA Yoga University  
Bengaluru, India  
E-mail: chancellor@svyasa.edu.in;  
hrnagendra1943@gmail.com

## Executive Editor

Prof Pulok Mukherjee  
Director  
Institute of Bioresources and Sustainable Development  
Imphal, India  
E-mail: director.ibsd@nic.in

## Subject Editors

Dr Sanjay K Uniyal  
Chief Scientist  
CSIR-IHBT  
Palampur, India  
E-mail: suniyal@ihbt.res.in

Dr Abdul Kareem  
Associate Professor and Head,  
Centre for Conservation of  
Natural Resources  
The University of Trans-Disciplinary  
Health Sciences and Technology,  
Bengaluru, India  
E-mail: abdul.kareem@tdu.edu.in

Dr Simone F Teixeira  
Universidade de Pernambuco  
Pernambuco, Brazil  
E-mail: teixeirasf.upe@gmail.com

Ar Sanjay Bhandari  
Assistant Professor  
School of Planning and Architecture  
Vijayawada  
E-mail: sanjaybhandari@spav.ac.in

Dr Sharad Srivastava  
Chief Scientist  
Pharmacognosy, Phytochemistry & Product

Development Division  
CSIR-National Botanical Research Institute  
Lucknow, India  
E-mail: sharad@nbri.res.in

Dr P Rammanohar  
Research Director  
Amrita School of Ayurveda  
Amrita University, Kollam, India  
E-mail: rammanoharp@gmail.com

Dr Vivek Kumar  
Professor  
Centre for Rural Development  
IIT Delhi, New Delhi, India  
E-mail: vivekk@iitd.ac.in

Dr Mamoni Das  
Principal Scientist  
College of Community Science  
Assam Agricultural University, Jorhat  
E-mail: mamoni.das@aau.ac.in

Dr Ramesh K Saini  
Associate Professor  
Department of Allied Health Science  
School of Health Sciences and Technology  
UPES, Dehradun 248 007,

Uttarakhand, India  
E-mail: saini1997@konkuk.ac.kr

Dr S V Amitha C R Mithra  
Senior Scientist  
ICAR-National Institute of Plant  
Biotechnology  
New Delhi, India  
E-mail: amithamithra.nrpcb@gmail.com

Dr C K Katiyar  
CEO Health Care (Technical)  
Emami Ltd., 687, Anandpur, EM Bypass  
Kolkata-700107, India  
E-mail: ck.katiyar@emamigroup.com

Dr. Mrinal Kanti Bhattacharyya  
Professor and Former Head  
Department of Biochemistry  
University of Hyderabad  
Gachibowli, Hyderabad, India  
E-mail: mkbsl@uohyd.ac.in

Dr Jyoti Prakash Tamang  
Professor  
Department of Microbiology  
Sikkim University, Gangtok, Sikkim, India  
E-mail: jyoti\_tamang@hotmail.com

## Editorial Board

Prof Rabinarayan Acharya  
Director General  
Central Council for Research in Ayurvedic  
Sciences (CCRAS), New Delhi, India  
E-mail: drnacharya@gmail.com,  
rabi\_dravyaguna@yahoo.co.in

Dr K Haridasan  
Former Joint Director  
Foundation for revitalization of Local  
Health Traditions, (FRLHT)

Consultant, Green Ahalia, Ahalia  
International Foundation, Palakkad, Kerala  
E-mail: haridasank9@gmail.com

Prof Rainer W Bussmann  
Principal Scientist  
Department of Ethnobotany,  
Institute of Botany Iliia State University,  
1 Botanical Street 0105, Tbilisi, Republic  
of Georgia  
E-mail: rainer.bussmann@iliauni.edu.ge

Prof B Ravishankar  
Division of Pharmacology  
Institute of Teaching and Research in  
Ayurveda, Jamnagar, India  
E-mail: gravishankar2000@yahoo.com

Prof Jamuna Prakash  
(Retd.), Dept. of Food Science and  
Nutrition University of Mysore  
Manasagangotri, Mysore, India  
E-mail: jampr55@hotmail.com

Prof Asim Ali Khan  
Former Director-General  
CCRUM, 61-65 Industrial Area  
Janakpuri, New Delhi-110 058, India  
E-mail: aakhan.jhu@gmail.com

Dr N Zaheer Ahmed  
Director-General  
CCRUM, 61-65 Industrial Area  
Janakpuri, New Delhi-110 058  
E-mail: unanimedicine@gmail.com;  
drnzaheer@gmail.com

Dr Ugur Cakilcioglu  
Associate Professor  
Munzur University  
Pertek-Tunceli, Turkey  
E-mail: ucakilcioglu@yahoo.com

Wend Wendland  
Director  
Traditional Knowledge Division, WIPO  
E-mail: wend.wendland@wipo.int

Dr Saroj K Barik  
Professor  
Dept of Botany  
NEHU, Shillong, India  
E-mail: sarojkbarik@gmail.com

Dr Indah Widiastuti, ST, MT  
Associate Professor

History, Theory, and Critic of Architecture,  
School of Architecture, Planning, and  
Policy Development  
Institut Teknologi Bandung  
Labtek IX B Gedung Arsitektur  
Jalan Ganeca No.10  
Bandung 40132, Indonesia  
E-mail: indahwidiastuti71@gmail.com

Dr Subhash C Mandal  
Secretary  
Society for Ethnopharmacology  
Jadavpur, Kolkata 700032, India  
E-mail: subhash.mandaldr@gmail.com

Dr Pardeep K Bhardwaj  
Scientist  
Institute of Bioresources and Sustainable  
Development  
Takyerlpat, Imphal 795001, India  
E-mail: pardeep2128@gmail.com

Dr Amit Kar  
Project Scientist  
Institute of Bioresources and Sustainable  
Development  
Takyerlpat, Imphal 795001, India  
E-mail: amit.kar2@gmail.com

Prof Marco Leonti  
Professor  
Department of Biomedical Sciences,  
University of Cagliari, Italy

E-mail: mleonti@unica.it;  
marcoleonti@hotmail.com

Dr A K Singh,  
Vice Chancellor  
Rani Lakshmi Bai Central Agricultural  
University, Jhansi 284003, India  
E-mail: aksicar@gmail.com;  
vcrlbcau@gmail.com

Prof Motlalepula G Matsabisa  
Professor & Director  
IKS lead Program  
Department of Pharmacology  
University of the Free State,  
Bloemfontein, SA  
E-mail: MatsabisaMG@ufs.ac.za

Prof Virendra Kumar Paul  
Professor of Building Engineering and  
Management  
School of Planning and Architecture Delhi,  
India  
E-mail: vk.paul@spa.ac.in

Prof Nomesh Bolia  
Department of Mechanical Engineering  
Indian Institute of Technology Delhi  
New Delhi, India  
E-mail: nomesh@mech.iitd.ac.in

---

Director, CSIR-NIScPR (*Ex-Officio*)

---

**Scientific Editor:** Dr Charu Lata (charulata@niscpr.res.in)

**Associate Scientific Editor:** Dr Paramananda Barman (param@niscpr.res.in)

**Editorial Assistant:** Shri Hashim Ali (hashimali@niscpr.res.in)

---

**Published by the National Institute of Science Communication and Policy Research, CSIR  
Dr K S Krishnan Marg, New Delhi 110 012, India**

**E-mail:** ijtk@niscpr.res.in; **Phones:** 011-26964473; 25846304-7, Ext. 251; **Website:** https://niscpr.res.in/

---

The Indian Journal of Traditional Knowledge is published monthly.

The Institute assumes no responsibility for the statements and opinions advanced by the contributors. The editorial staff in its work of examining papers received for publication is assisted, in an honorary capacity, by a large number of distinguished scientists. Communications regarding contributions for publication in the journal should be addressed to the **Editor, Indian Journal of Traditional Knowledge, National Institute of Science Communication and Policy Research, Dr K S Krishnan Marg, New Delhi 110 012**. Payments in respect of subscriptions may be made through NEFT/RTGS, payable to NIScPR, New Delhi. The details of Bank Account for NEFT/RTGS transactions are as follows:

Bank name: CANARA Bank  
Account No: 110003874485  
MICR Code: 110015428

Address: NPL Campus, New Delhi 110012, India  
Beneficiary Name: CSIR-NIScPR, New Delhi 110012  
Branch Code: 9029

Branch: NPL Campus, New Delhi  
IFSC Code: CNRB0019100  
SWIFT Code: CNRBINBBBFD

All correspondence regarding subscription, renewal, claims for missing numbers and advertisements should be addressed to the **Head, Business Development Group & Industry, CSIR-National Institute of Science Communication and Policy Research., Vigyan Sanchar Bhawan, Dr K S Krishnan Marg, New Delhi 110 012.**

**Phone:** 25843359 (Subscription Complaint)/25846301, 25846304-07 Extn 287, 288. E-mail: sales@niscpr.res.in

**E-mail:** ijtk@niscpr.res.in, **Website:** www.niscpr.res.in; http://nopr.niscpr.res.in

Claim for missing number(s) of the journal(s) will be allowed only if received within 3 months of the date of issue of the journal plus the time normally required for postal delivery of the journal(s) and the claim.

<b>#Annual Subscription (12 issues):</b>	Rs 5760.00	\$ 780.00*
<b>#Single Copy:</b>	Rs 576.00	\$ 78.00*

#Subject to Revision

For inland outstation cheques add Rs. 50.00. For foreign cheques add \$ 10.00.

\*Inclusive of first class mail

© 2024 CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi 110 012

### **CSIR-NIScPR Policy on Plagiarism**

The system of formal communication in science through publication in primary journals is based on originality and quality of information, being the only criteria for publication. However, there have been tendencies to misuse the system and vitiate the process of science communication for personal benefits. One of the ills, afflicting science communication, is plagiarism. Attempts at plagiarism may range from verbatim copying of extensive material of other authors, misappropriating results/data of others with minor changes in language/presentation without giving credit to original source, and to publishing essentially the same information more than once.

As the premier institution of publishing primary scientific journals in various disciplines of science and technology in India, CSIR-NIScPR strongly reiterates its policy of discouraging plagiarism of all kinds. All efforts are made to detect and frustrate attempts at plagiarism through editorial screening and rigorous peer review in respect of communications received for publication in the CSIR-NIScPR publications. Cooperation of the scientific community is sought in our efforts to frustrate all attempts at plagiarism.

In case, any attempt of plagiarism is brought to our attention accompanied with convincing evidence, following steps would be taken:

- (a) After consulting the respective Editorial Board Members, authors guilty of plagiarism will be debarred from publishing their papers in CSIR-NIScPR journals.
- (b) Heads of the Departments/Institutes of the offending authors will be intimated of such incidences of plagiarism.
- (c) Such incidents of plagiarism will be publicized through the concerned CSIR-NIScPR journals in consultation with the respective Editorial Board Members.

