

Appendices

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Survey Questionnaire – Complete.

Appendix-2

Copy of the email invitation sent separately to the Fellows of [IASc] / [INSA] / [NASI] for participation in the online survey.

Appendix-3

Copy of the matter of the second reminder sent separately to the Fellows of [IASc] / [INSA] / [NASI] for participation in the online survey.

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Copy of the third reminder sent separately to the Fellows of three academies.

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List of affiliated institutions as reported by respondents (N = 204).

Science Communication by Scientists in India: A Survey

About the Survey and Consent Information

Different voices are being increasingly raised demanding active involvement of scientists in science communication. However, little is known about how scientists in India make sense of the complexities of science communication with the general public and the media.

Therefore, this online survey is created to better understand what scientists in India think about the importance of science communication, their roles and responsibilities, their current practices of engagement, the impact of public engagement on their career advancement, and factors affecting their active engagement in science communication. This first of its kind survey in India is part of my self-sponsored doctoral research on 'science communication by scientists in India' at BITS Pilani.

Potential Respondents

The survey seeks responses from Indian scientists/academic researchers who are:

- 1) Fellows of any of the three prestigious national science academies of India (IASc, Bengaluru; INSA, New Delhi; and NASI, Allahabad), and
- 2) Currently living in India.

Your voluntary participation is very valuable for this study giving a representative voice to what scientists in India think about science communication. It will also provide valuable insights for identifying appropriate interventions for further enhancing scientists' engagement in science communication in the country.

Instructions and Consent Information

In addition to some demographic questions in the beginning, this online survey questionnaire has 35 questions and is divided into seven pages. It should take about 10-15 minutes to fill the questionnaire.

The information you provide by filling the questionnaire online will be treated strictly confidential and anonymous, with the individual responses being identified only by a number. No personal identifier information such as name, email, IP address, etc. will be collected.

In the questionnaire, there are no right or wrong answers. It just seeks your views/opinion and attitudes. So please answer the questionnaire as completely and honestly as possible.

You can navigate through the pages back and forth and can edit your response till the final submission. Please note that all questions require an answer. If, for any reason, you feel uncomfortable about the survey, you may exit the survey at any stage.

Thank you very much in advance for taking your precious time to complete the survey online.

In case, you have any queries, please feel free to contact: Abhay SD Rajput, PhD Scholar, BITS Pilani, Mobile: 9764804068, Email: abhaysdr@gmail.com

Definitions for this study

Science Communication: Putting in simple terms, it is the popularisation/commonisation of scientific

knowledge and practices among the masses (larger society). It is an effort to engage the larger public in science for bridging the gap between science and society. Science communication may include face-to-face interactions and through the use of any possible media or channels of communication.

General Public or simply public: The non-specialist adult people outside your research domain. It may include scientists/academics of other fields, politicians/law-makers, journalists, or anyone on the street who is interested in science.

Scientist: Any person who is actively and professionally engaged in research contributing in the advancement of organised science.

Consent

I understand the terms and elements of the study as mentioned above. I am a Fellow of at least one of the above mentioned science academies and am currently living in India. I'm participating voluntarily in this study and I may exit the survey at any stage if I wish to do so. I give my consent for using the data I provide by filling the questionnaire to be

*** 1. Informed Consent:**

- I understand the terms and elements of the study as mentioned above. I am a Fellow of at least one of the above mentioned science academies and am currently living in India. I'm participating voluntarily in this study and I may exit the survey at any stage if I wish to do so. I give my consent for using the data I provide by filling the questionnaire to be stored and analysed for this study.

Science Communication by Scientists in India: A Survey

Demographics

Please answer the following demographic questions about yourself. All your responses will be treated strictly confidential and anonymous. These are needed only for comparing results from different types of respondents.

*** 2. Gender:**

- Male Other
 Female

*** 3. Age group:**

- <25 years 45-55 years
 25-35 years >55 years
 35-45 years

*** 4. Educational Qualification (Highest Degree):**

- Bachelor's Degree Doctorate Degree (PhD)
 Master's Degree

5. Your current affiliation (if retired, then the last):

*** 6. The institution you are affiliated with is a :**

- Central University State R&D Institute/Lab
 State University Non-Government Organisation (NGO)
 Private University Private Company
 Central R&D Institute/Lab Other

*** 7. Which of the following best describes your current (if retired, then the last)**

Primary Position:

- Director/Head of institution or above Professor/Lecturer
 Department Head/Group Leader Scientific/Technical Staff
 Scientist
 Other (please specify)

*** 8. Your total Research Experience (in years):**

- <10 20-30
 10-20 >30

*** 9. Total number of your peer-reviewed research publications:**

- <20 60-80
 20-40 80-100
 40-60 >100

*** 10. Your Mother Tongue:**

*** 11. You learned English as:**

- First Language Third Language
 Second Language

*** 12. Which of the following broad Disciplines best describes your Current Area of Research:**

- Physical Sciences Earth and Planetary Sciences
 Chemical Sciences Medical Sciences
 Biological Sciences Engineering and Technology
 Mathematical Sciences Humanities and Social Sciences
 Computer and IT

*** 13. From the list given below, please select the option(s) that describe you:**

- Fellow of Indian Academy of Sciences (IASc), Bengaluru
- Fellow of National Academy of Sciences, India (NASI), Allahabad
- Fellow of Indian National Science Academy (INSA), New Delhi

Science Communication by Scientists in India: A Survey

Your views about the Importance of Science communication

This page has five questions to understand what scientists think about the importance of science communication and science coverage in media. Please record your views/opinion as completely and honestly as possible.

* 14. How do you think about the importance of communicating science to the general public?

- Very Important Minimally Important
 Important Not at all important
 Moderately Important

* 15. While communicating science to the general public, how important do you think the following objectives are to you personally? (Please rate your response on a 5-point scale where 1 = least important and 5 = very important)

	1	2	3	4	5
To inform and educate.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To inculcate scientific temper.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To simplify science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To contribute in public policy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To create excitement about science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To build public trust on science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 16. There are many ways to communicate science with non-scientists. Personally, how do you evaluate the importance of following ways in communicating science to the general public?

	Not at all Important	Minimally Important	Moderately Important	Important	Very Important
Face-to-face interactions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV/videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Print Media/Press	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 17. How do you think about the current level of science coverage in the news media in general in India?

Very Poor	Poor	Average	Good	Very Good	No Opinion
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 18. Please indicate your level of agreement or disagreement with the following general statements about science and society.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Scientific ignorance is a hurdle in the advancement of science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scientifically ignorant public can oppose science projects.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public awareness about scientific issues should be increased.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better linkages between science and society are needed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Science Communication by Scientists in India: A Survey

Your views on role and responsibilities of scientists in science communication

The next few questions seek your views on role and responsibilities in science communication. Please select the options that best express your opinion.

* 19. Like publishing in peer-reviewed journals, do you think disseminating your research results to society is an important part of your current job's roles and responsibilities?

- Yes No
 May be Don't Know

* 20. When taxpayers fund scientists' research and salary, scientists should have a moral duty to inform society about what they are doing with taxpayers' money.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 21. How do you agree/disagree with the following statements?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Scientists are responsible for communicating their research to the public.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science communication should be an essential part of a scientist's duty/job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scientists should play an active role in science communication.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 22. From the list below, who do you think should have the main responsibility for communicating science to the general public? Please select any one of the following that best describes your opinion.**

- | | |
|--|--|
| <input type="radio"/> Scientists themselves | <input type="radio"/> Media/Press |
| <input type="radio"/> Funding agencies for scientific research | <input type="radio"/> Science communication specialists |
| <input type="radio"/> R&D Institutions | <input type="radio"/> Separate communication departments at R&D institutions |
| <input type="radio"/> Government | |

Science Communication by Scientists in India: A Survey

Your views on scientists' engagement with the general public and the media

In this section, you are asked about your views, opinion, current practices and experiences about your engagement in science communication with the general public and the media.

* 23. In general, how frequently do you actively engage in science communication activities?

- Often Rarely
 Occasionally Never

* 24. How frequently your institution organises public engagement activities?

- Often Rarely
 Occasionally Never

* 25. How often have you participated in any of the following science communication activities during the last one year?

	Never	Once	2-5 times	6+ times
Face-to-face interactions with the public (open days/public talks/expos/etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talking at schools and colleges.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Giving interviews to journalists/reporters.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing popular science articles/books.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing about science online (websites, blogs, wikis, social media).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sharing research videos online.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 26. In general, how easy/difficult do you find it to engage in science communication activities?

Very Difficult	Fairly Difficult	Neutral	Fairly Easy	Very easy
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 27. If you were engaged in any science communication activities in the past, then how was your overall experience so far?

Very Bad	Bad	Average	Good	Very Good	No Opinion
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 28. Given an opportunity to communicate your research to the public in future, how likely would you get involved in science communication activities?

Very Unlikely	Quite Unlikely	Neutral	Quite Likely	Very Likely
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 29. If you engage in science communication activities, then how likely do you think the following will happen?

	Very Unlikely	Quite Unlikely	Neutral	Quite Likely	Very Likely
It will increase scientific knowledge of the public.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It will increase my own scientific knowledge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It will increase my confidence in public communication.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It will provide scientific information for wider public use.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It will popularise my research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It will increase public support for my research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 30. How do you agree/disagree with the following statements about your engagement in science communication with the non-specialist publics and the media?**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I personally enjoy taking part in science communication activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident about my ability to communicate science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am personally well equipped to communicate my research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 31. How would you rate your own engagement in science communication with the general public/media?**

- | | |
|---------------------------------|----------------------------------|
| <input type="radio"/> Very Poor | <input type="radio"/> Good |
| <input type="radio"/> Poor | <input type="radio"/> Very Good |
| <input type="radio"/> Average | <input type="radio"/> No Opinion |

Science Communication by Scientists in India: A Survey

You views on the impact of public engagement on scientists' career advancement

Following few questions seek responses on what scientists think about the impact of their engagement in science communication activities on their career advancement.

- * 32. How do you agree/disagree with the following statements about your engagement in science communication with the general public (directly or through media) and its impact on your career?

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
It would benefit in advancing my scientific career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would negatively impact my scientific career.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My employer/institution does not give any importance to such activities for promotions, rewards, honours and recognition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It would help me to get research funding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- * 33. How do you agree/disagree with the statement that scientists who engage more in science communication are often labelled as 'Publicists' by the peers, which is not good for a scientist's career.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 34. What do you think about the importance of the following for career advancement of scientists?**

	Not at all Important	Minimally important	Moderately important	Important	Very Important
Participation in science communication activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Getting your research findings covered by the news media.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promoting your research findings on social media (such as Facebook, Twitter, LinkedIn or Youtube).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Science Communication by Scientists in India: A Survey

Factors affecting scientists' active engagement in science communication

The following questions on this page seek views on the possible factors affecting scientists' active engagement in science communication activities.

- * 35. How does your institution/employer support (encourage) scientists to communicate science with the general public and the media?

Not at all supportive	Minimally Supportive	Moderately Supportive	Supportive	Very Supportive
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- * 36. How frequently do you think your close academic colleagues participate in science communication activities?

Often	Occasionally	Rarely	Never
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- * 37. How do you agree with the statement that many of your colleagues at your organisation/department take active part in science communication activities?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- * 38. How supportive do you think the following people are to your participation in science communication activities?

	Not at all supportive	Minimally Supportive	Moderately Supportive	Supportive	Very Supportive
Your academic colleagues/peers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your family and close friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- * 39. Do you think your research is too complex for the general public to understand?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 40. How would you like to agree/disagree with the following being a potential factor preventing your active engagement in science communication activities?**

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Lack of time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No interest in such activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of communication skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No incentives/rewards and recognition.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deviation from research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficulty in constructing messages relevant for the public.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No personal benefits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of institutional support/encouragement.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of funding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of comfort in such activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Science communication is not part of my duty.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*** 41. How skilled do you think you are in communicating science with non-specialist audiences through the following media formats?**

	Very Unskilled	Quite Unskilled	Neutral	Quite Skilled	Very Skilled
Face-to-face	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Online	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
TV/Videos	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Radio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Print Media/Press	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 42. How willing would you be to participate in science communication activities in the next 12 months?

Very Unwilling	Quite Unwilling	Neutral	Quite Willing	Very Willing
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Your views on training in Science Communication

* 43. Have you ever been trained in science communication with the general public/media? From the list below, please select the one that best describes your position.

- Studied a degree/diploma course. My PhD guide trained me.
 Attended short term training/workshop. Self-taught.
 Learned by experience through my career. I have no knowledge on this area.
 My institution trained me.

* 44. How do you agree/disagree with the statement that you have enough training to engage with the public/media?

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 45. Do you think that attending training/workshop on science communication/media skills would further help you do better in public engagement?

- Yes No
 May be Don't know

* 46. How willing are you to attend science communication/media training?

Very Unwilling	Quite Unwilling	Neutral	Quite Willing	Very Willing
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Science Communication by Scientists in India: A Survey

Your views on what is needed to enhance science communication by scientists in India

* 47. Which of the following interventions would you like to recommend for enhancing Indian scientists' engagement in science communication with the public/media?

	Strongly Not Recommended	Not Recommended	Neutral	Recommended	Strongly Recommended
Offering rewards/incentives to scientists.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Training scientists in communication and media skills.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ensuring institutional support/encouragement for such activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Providing financial support for such activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Every S&T institution should appoint science communication specialists who are expert in engaging with the public and the media.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making it mandatory for scientists to communicate with the public.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Considering science communication activities in the annual assessment and promotions of scientists.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Not Recommended	Not Recommended	Neutral	Recommended	Strongly Recommended
Guidelines for scientists on how to communicate with the public.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Appropriate policy for science communication by scientists.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Integrating science communication training as a mandatory part of science education at college and university level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. Anything else that you would like to say about enhancing science communication by scientists in India (Optional).					

Appendix-2

Copy of the email invitation sent separately to the Fellows of [IASc] / [INSA] / [NASI] for participation in the online survey.

Science Communication by Scientists in India

(Sent on 5 Oct. 18 to all the elected fellows of the three academies through academy-wise lists)

.....
Dear Fellow of [IASc] / [INSA] / [NASI],

Greetings!

You are invited to participate in a study on “Science Communication by Scientists in India” by completing an online questionnaire. Being the first of its kind in India exploring scientists’ views about science communication with the general public, the Study is part of my doctoral research at BITS Pilani.

As part of this Study, I’m conducting an online survey of the Fellows of three prestigious national science academies of India (IASc, Bengaluru; INSA, New Delhi; and NASI, Allahabad) to collect their views on science communication.

Therefore, being an IASc/INSA/NASI Fellow, you are invited to contribute your views about science communication through an online questionnaire. Your views are important for my study to develop an understanding of Indian scientists’ views, current practices, experiences and behaviours in science communication. It will also contribute to the possible training and policy interventions for the advancement of science communication in the country.

I hope you’ll spare your valuable 10-15 minutes to fill the online questionnaire. To fill the questionnaire online, please click on the link “Begin Survey’ below. Thank you in advance for your participation in my study!

The questionnaire is open to collect responses upto 15 October 2018.

With regards and thanks,
Abhay SD Rajput
PhD Scholar
BITS Pilani
Mobile: 97xxxxxx68
Email: abhaysdr@gmail.com

Begin Survey
[unique link for the survey questionnaire]

Appendix-3

Copy of the matter of the second reminder sent separately to the Fellows of [IASc] / [INSA] / [NASI] for participation in the online survey.

Reminder: Science Communication by Scientists in India
(Sent on 10 Oct. 18 to non-respondents through three academy-wise lists)

.....

Dear Fellow of [IASc] / [INSA] / [NASI],

Greetings!

We recently contacted you for participation in a study on “Science Communication by Scientists in India” by completing an online questionnaire. But we haven’t received your responses yet.

We would really appreciate your participation in this first of its kind survey in India exploring IASc/INSA/NASI Fellows’ views, current practices, experiences and behaviours in science communication with the general public/media.

Having dedicated your whole life to the cause of science, you, being a Fellow of [IASc] / [INSA] / [NASI], are invited to contribute your responses in this online survey, as a representative voice of the Indian scientific community.

Please spare your valuable 10-15 minutes to fill the online survey at the earliest possible. To fill the questionnaire online, please click on the link 'Begin Survey' (green button) below. Thank you in advance for your participation in our study!

With regards and thanks,
Abhay SD Rajput
Science Communication Researcher
BITS Pilani
Mobile: 97xxxxxx68
Email: abhaysdr@gmail.com

Begin Survey
[unique link for the survey questionnaire]

Appendix-4

Copy of the third reminder sent separately to the Fellows of three academies.

(Sent on 24 Oct. 2018 morning between 10:00-10:30am to non-respondents through three academy-wise lists)

Reminder: Science Communication by Scientists in India

.....
A university study on “Science Communication by Scientists in India”
(Apologies for any cross posting)

Dear Fellow of [IASc] / [INSA] / [NASI],

Greetings!

We recently contacted you for participation in a study on “Science Communication by Scientists in India” by completing an online questionnaire.

If you have already completed the questionnaire, please ignore this reminder.

The study would also benefit the larger Indian scientific community to get some insights on what Indian scientists think about science communication. It would also be helpful to the science academies in devising appropriate policy and training interventions in the future.

If anyhow you missed to submit your responses, we would really appreciate if you could spare your valuable 10-15 minutes to complete the online questionnaire. The extended last date for receiving responses is 31 October 2018.

To fill the questionnaire online, please click on the link 'Begin Survey' (green button) below.

The participants’ responses to the survey are confidential and are recorded anonymously by the survey software used.

Thank you in advance for your participation in our study!

With regards and thanks,
Abhay SD Rajput
Science Communication Researcher
BITS Pilani
Mobile: 97XXXXXX68
Email: abhaysdr@gmail.com

Begin Survey
[unique link for the survey questionnaire]

Appendix-5

List of affiliated institutions as reported by respondents (N = 204).

It is based on the disclosure of 204 respondents in response to the optional open-ended question (Q.5.) on Current Affiliation (If retired, then last).

(The list is arranged alphabetically. INSA, NASI and IASc as affiliations are not included as all the respondents were selected as the potential respondents because of being a Fellow of any of these academies.)

1. Ahmedabad University, Ahmedabad
2. Aligarh Muslim University, Aligarh
3. All India Institute of Medical Sciences, Jodhpur
4. All India Institute of Medical Sciences, New Delhi
5. Amity Institute for Herbal & Biotech Products Development, Trivandrum
6. Amity University Rajasthan, Jaipur
7. Amity University, Kolkata
8. Anna University Chennai
9. Apollo Hospitals
10. Aravind Eye Hospital
11. Aryabhatta Research Institute of Observational Sciences (ARIES), Nainital
12. Banaras Hindu University, Varanasi
13. Bhabha Atomic Research Centre (BARC), Mumbai
14. Bhaskaracharya Pratishthan, Pune
15. Bose Institute, Kolkata
16. Central university of Punjab, Bathinda
17. Centre for DNA Fingerprinting and Diagnostics (CDFD), Hyderabad

18. Centre for Health Research and Development, Society for Applied Studies, New Delhi
19. Centre for Interdisciplinary Research and Education, Kolkata
20. Centre for Materials for Electronics Technology (C-MET), Pune
21. Centre for Mathematical and Statistical Sciences India
22. Chennai Mathematical Institute, Chennai
23. Chittaranjan National Cancer Institute, Kolkata
24. College of Veterinary Science, AAU, Guwahati
25. Council of Scientific and Industrial Research (CSIR)
26. CSIR-Central Drug Research Institute (CDRI), Lucknow
27. CSIR-Centre for Cellular and Molecular Biology (CCMB), Hyderabad
28. CSIR-Indian Institute of Chemical Biology (IICB), Kolkata
29. CSIR-Indian Institute of Chemical Technology (IICT), Hyderabad
30. CSIR-National Botanical Research Institute (NBRI), Lucknow
31. CSIR-National Chemical Laboratory (NCL), Pune
32. CSIR-National Geophysical Research Institute, Hyderabad
33. CSIR-National Institute for Interdisciplinary Science and Technology (NIIST),
Trivandrum
34. CSIR-National Institute of Oceanography (NIO), Goa
35. CSIR-National Physical Laboratory (NPL), New Delhi
36. Dangoria Charitable Trust, Hyderabad
37. Defence Institute of Advanced Technology, Pune
38. Defence Research and Development Organisation (DRDO)
39. Department of Atomic Energy (DAE), Govt of India
40. Department of Biotechnology, Govt of India
41. Dravidian University, Kuppam, Andhra Pradesh

42. Gangadhar Meher University, Sambalpur
43. Geological Survey of India
44. Glocal hospital, Medinipur, West Bengal
45. Harish-Chandra Research Institute
46. Himalayan Environmental Studies and Conservation Organization (HESCO) (NGO)
47. Homi Bhabha National Institute (HBNI), Mumbai
48. ICAR-Indian Institute of Oilseeds Research (IIOR), Hyderabad
49. ICAR-National Bureau of Plant Genetic Resources (NBPGR), New Delhi
50. ICMR-National Institute for Research in Reproductive Health (NIRRH), Mumbai
51. ICMR-National Institute of Malaria Research (NIMR), New Delhi
52. India Alliance
53. Indian Agricultural Statistics Research Institute (IASRI), New Delhi
54. Indian Association for the Cultivation of Science (IACS), Kolkata
55. Indian Council of Agricultural Research (ICAR), New Delhi
56. Indian Council of Medical Research (ICMR), New Delhi
57. Indian Institute of Astrophysics (IIAP), Bengaluru
58. Indian Institute of Geomagnetism (IIG), Mumbai
59. Indian Institute of Science (IISc), Bengaluru
60. Indian Institute of Science Education and Research (IISER), Kolkata
61. Indian Institute of Science Education and Research (IISER), Mohali
62. Indian Institute of Science Education and Research (IISER), Pune
63. Indian Institute of Technology (IIT), Bombay
64. Indian Institute of Technology (IIT), Delhi
65. Indian Institute of Technology (IIT), Guwahati
66. Indian Institute of Technology (IIT), Kanpur

67. Indian Institute of Technology (IIT), Kharagpur
68. Indian Institute of Technology (IIT), Madras
69. Indian National Academy of Engineers (INAE), Gurugram
70. Indian Space Research Organisation (ISRO), Bengaluru
71. Indian Statistical Institute (ISI), Kolkata
72. Indraprastha Institute of Information Technology, Delhi (IIIT), Delhi
73. Institute for Development & Research in Banking Technology (IDRBT), Reserve Bank of India (RBI), Hyderabad
74. Institute for Plasma Research (IPR), Ahmedabad
75. Institute of Liver and Biliary Sciences (ILBS), New Delhi
76. Institute of Mathematical Sciences (IMSc), Chennai
77. Inter University Centre for Biomedical Research (IUCBR), Kottayam
78. International Center for Cosmology, CHARUSAT University, Anand
79. International Centre for Genetic Engineering and Biotechnology (ICGEB)
80. Inter-University Accelerator Centre (IUAC), New Delhi
81. Jadavpur University, Kolkata
82. Jaipur National University (JNU), Jaipur
83. Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru
84. Jawaharlal Nehru Technological University (JNTU), Hyderabad
85. Jawaharlal Nehru University (JNU), New Delhi
86. Karnatak University, Dharwad
87. Karnataka State women's university, Bijapur
88. L.V. Prasad Eye Institute, Hyderabad
89. MACS-Agharkar Research Institute, Pune
90. Maharshi Dayanand University, Rohtak

91. Mumbai University, Mumbai
92. Nalanda University, Nalanda
93. National Brain Research Centre (NBRC), Gurugram
94. National Centre for Cell Science (NCCS), Pune
95. National Centre for Seismology (Ministry of Earth Sciences), New Delhi
96. National Centre of Radio Astrophysics (NCRA), Pune
97. National Institute of Immunology (NII), New Delhi
98. National Institute of Nutrition (NIN), Hyderabad
99. National Institute of Science Education and Research (NISER), Bhubaneswar
100. North-Eastern Hill University (NEHU), Shillong
101. Odisha University of Agriculture & Technology, Bhubaneswar
102. Panjab University, Chandigarh
103. Physical Research Laboratory (PRL), Ahmedabad
104. Rajasthan University of Health Sciences (RUHS), Jaipur
105. Rajghat Education Centre, Krishnamurti Foundation India, Varanasi
106. Rajiv Gandhi Centre for Biotechnology (RGCB), Thiruvananthapuram
107. Rand Polyproducts Pvt. Ltd.
108. S.N. Bose National Centre for Basic Sciences, Kolkata
109. Saha Institute of Nuclear Physics, Kolkata
110. Sambalpur University, Sambalpur
111. Sanjay Gandhi Post Graduate Institute of Medical Sciences (SGPGI), Lucknow
112. Sardar Patel University, Anand
113. SASTRA University, Kumbakonam
114. Science and Engineering Research Board (SERB)
115. Shivaji University, Kolhapur

116. Sikkim University, Gangtok
117. South Asian University, New Delhi
118. Space Physics Laboratory, Vikram Sarabhai Space Centre, Thiruvananthapuram
119. Strand Life Sciences
120. Suoer Speciality Hospital
121. Tata Institute of Fundamental Research (TIFR), Mumbai
122. Tata Memorial Centre Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre, Mumbai
123. Translational Health Science and Technology Institute (THSTI), Gurugram
124. TIFR-Homi Bhabha Centre for Science Education (HBCSE), Mumbai
125. TIFR-International Centre for Theoretical Sciences (ICTS), Bengaluru
126. TIFR-National Center For Biological Sciences (NCBS), Bengaluru
127. UM-DAE Center of Excellence for Basic Sciences, Mumbai University
128. University of Allahabad, Prayagraj
129. University of British Columbia
130. University of Calcutta, Kolkata
131. University of Delhi, Delhi
132. University of Hyderabad, Hyderabad
133. University of Madras, Chennai
134. University of Mysore, Mysuru
135. University of Petroleum and Energy Studies (UPES), Dehradun
136. University of Rajasthan, Jaipur
137. Variable Cyclotron Centre, DAE, Kolkata
138. Variable Energy Cyclotron Centre, Kolkata
139. Vikas Technologies