

Report On Advanced Refresher Course (Biology) at Challakere, IISc Bengaluru



Submitted by: Dr Vishal Kumar (Participant)

Designation: Assistant Professor, Department of Zoology

**Institution: Govt. P. G. College Berinag, Pithoragarh
(Uttarakhand)**

Duration of Course: 15 August 2025 – 30 August 2025

**Venue: Talent Development Centre, IISc Challakere
Campus at Khudapura, Chitradurga, Karnataka**

Sr. No.	Full Name of The Faculty	Present Designation	Subject Name	University/ Affiliating University Name	Name of the College/ University Campus	Mobile No	WhatsApp No	Alternate email Address	Present Pay Scale (mention pay Level also)	Date of Birth	Date of Joining	H-Index	No. of Research Publication	No. of Book Publication
1	Ahmad Pervez	Professor	Zoology	Sri Dev Suman Uttarakhand University	Pt. Lalit Mohan Sharma Campus Rishikesh	9368964587	9368964587	ahmadpervez@yahoo.com	144200-218200 Level 14	2/9/1973	1/8/2005	28	130	3
2	Dr. Mukesh Samant	Assistant Professor	Zoology	Sobhan Singh Jeena University, Almora	Rajkeeya Mahavidyalaya Thattur, Tehri Garhwal	9012398089	6397730105	mukeshsamantcampus@gmail.com	Pay Matrix-12	05/10/1980	30/05/2013	28	50	3
3	Dr. Rakesh Verma	Assistant professor	Zoology	LSM campus Pithoragarh	SSJ University Almora		9897368158	rakeshverma.pithoragarh@gmail.com	AGP 7000 (UGC academic level 11)	1/6/1985	10/7/2020	13	30	5
4	Deepak Kumar Arya	Assistant Professor	Zoology	Kumaun University, Nainital	D. S. B. Campus, Nainital	8476970520	8476970520	dee.in@rediffmail.com	Grade Pay Rs. 8,000/-	10/08/1982	02/05/2013	9	20	8
5	Dr. Anchala Nautiyal	Assistant Professor	Zoology	Sri Dev Suman Uttarakhand University	Rajkeeya Mahavidyalaya Thattur, Tehri Garhwal	9557658603	9557658603	anchala.nautiyal@gmail.com	64900 Pay Level 10	10/06/1989	03/07/2020	8	17	1
6	Dr. Hemant Joshi	Assistant Professor	Zoology	Sri Dev Suman University, Badshahithaul, New Tehri	Govt. Degree college chaubattakhal	7500664737	7500664737	drhaimantjoshi@gmail.com	57700-182400 (UGC Level-10)	14/12/1976	2/1/2017	7	52	
7	Dr. Ram Chandra Maurya	Assistant Professor	Zoology	Sobhan Singh Jeena University Almora	Sobhan Singh Jeena University Campus Almora	7376332769	7376332769	mauryarc@gmail.com	12	10/07/1979	02/05/2013	7	22	
8	Prof Dr Madhu Thapliyal	Professor	Zoology	Sri Dev Suman Uttarakhand University	RCU Government PG college Uttarkashi	7579045745	7579045745	madhuthapliyal@gmail.com	144200 to 218200 (level 14)	19/11/1974	16/07/2005	6	49	7
9	Dr Aman Verma	Assistant Professor	Zoology	Sobhan Singh Jeena University	GPSC Berinag	9557016715	9719223913	amannain92@gmail.com	57,700 - Level 10	12/2/1992	31/01/2025	6	16	
10	Monu Bala	Assistant Professor	Zoology	S.S.J University Almora	S.S.J.P.G.College Syalde Almora.	8810368236	8191826385		91000	26/08/1982	02/07/2020	6	11	3
11	Prof. Mahabir Singh Rawat	Professor & Campus Director	Zoology	Sri Dev Suman University, Badshahithaul Tehri	Pt. LMS Campus, Rishikesh	9412916792	9412916792	drmrarawat2@yahoo.co.in	144200-218200 (14)	3/11/1967	5/6/1997	5	28	
12	Chandra pal singh	Professor	Zoology	Sri Dev Suman Uttarakhand University	Govt Degree college chauriyals Haridwar	9557498950	9557498950	epsingh26 feb@gmail.com	144200-218200 (UGC LEVEL 14)	26/02/1973	22/07/2005	5	15	2
13	Dr. Prithvi Raj Singh Koranga	Assistant Professor	Zoology	Sri Dev Suman Uttarakhand University	Sister Government Degree College Nainikunda	9999796469	9999796469	prskoranga@gmail.com	57700-182400 (UGC Level-10)	06/07/1981	27/02/2025	5	6	
14	Dr. Sandeep Kumar	Associate Professor	Zoology	SSJU, Almora	SSJU Campus, Almora	9411358630	9411358630	drsandeeptj@gmail.com	13A	7/8/1980	4/12/2010	4	35	2
15	Dr. Tribhuvan Chandra	Assistant Professor	Zoology	SDSU Badshahithaul, New Tehri	Shaheed Durga Mall Govt Pg College Dohwala	7895321400	7895321400	tribhuvan.chandra@gmail.com	68900-205600 (Level 11)	18/10/1981	19/09/2014	4	19	1
16	Dr. Dalip Kumar Bhartiya	Assistant Professor	Zoology	Sri Dev Suman University, Tehri Garhwal	Government P.G. College Dinkpathar Dehradun	9412047259	9412047259	dkbhatnadd@gmail.com	Level - 11	30/05/1970	23/07/2016		12	1
17	Dr. Akash Chandra Mishra	Assistant Professor	Zoology	Kumaun University, Nainital	Radhey Hari Government Post Graduate College, Kashipur	8355030949	8355030949	akshz_mis@rediffmail.com	68900-205600 (UGC LEVEL-11)	1/5/1979	13/11/2014	3	10	6
18	Dr. Rajni Mehra	Assistant professor	Zoology	Sobhan Singh Jeena University, Almora	Govt Model Degree College Devidhura, Champawat	9412306599	9412306599	mehrarajan970@gmail.com	89800 (Level-12)	8/9/1970	18/03/2013	3	10	1
19	Dr. Neelam Saini	Assistant Professor	Zoology	Sri Dev Suman University Badshahithaul Tehri Garhwal	PSB Govt Degree College Lambgon Tehri Garhwal Uttarakhand (249165)	8650647633	8650647633	neelamsarveshaini999@gmail.com	57700-182400	30/01/1986	03/06/2025		6	4
20	Dr. Vishal Kumar	Assistant Professor	Zoology	SSJ University Almora	GPSC Berinag	9997538362	9997538362	Vishalange27@gmail.com	57700-182400	27/07/1988	1/2/2025	2	8	1

Handwritten signature and date: 07/08/25

Selection list of participants for the Advanced Refresher Course (Biology) at the IISc Bengaluru

कार्यालय प्राचार्य राजकीय स्नातकोत्तर महाविद्यालय बेरीनाग

पत्रांक/368 / 2025-26 दिनांक 08.08.2025

कार्यालय आदेश

सचिव, उच्च शिक्षा के पत्रांक 319152/xxiv-C-2 / 2025-17104/2025 उच्च शिक्षा अनुभाग 4 दिनांक 07 अगस्त 2025 तथा निदेशालय के पृष्ठानक संख्या डिग्री बजट/2596/2025-26 दिनांक 07 अगस्त 2025 के अनुपालन में महाविद्यालय में कार्यरत निम्नलिखित प्राध्यापकों को आई0आई0एस0सी0 बैंगलौर में दिनांक 15-08-2025 से 30-08-2025 तक होने वाले प्रशिक्षण में प्रतिभाग करने हेतु दिनांक 11-08-2025 के पूर्वान्हन में कार्यमुक्त किया जाता है।

- डॉ0 बीना लोहिया, असिस्टेंट प्रोफेसर वनस्पति विज्ञान – कमांक 01
- डॉ0 महेश चन्द्र विश्वकर्मा, असिस्टेंट प्रोफेसर रसायन विज्ञान- कमांक 08
- डॉ0 अमन वर्मा, असिस्टेंट प्रोफेसर जन्तु विज्ञान कमांक – 09
- डॉ0 विशाल कुमार, असिस्टेंट प्रोफेसर जन्तु विज्ञान कमांक – 20

प्राचार्य
प्राचार्य
राजकीय स्नातकोत्तर महाविद्यालय
बेरीनाग, पिथौरागढ़ (उत्तराखण्ड)

The relieving letter issued by the Institute

संख्या-319152/XXIV-C-2/2025-17(04)/2025

प्रेषक,

डॉ० रंजीत कुमार सिन्हा
सचिव, उच्च शिक्षा
उत्तराखण्ड सरकार

सेवा में,

1. निदेशक,
उच्च शिक्षा निदेशालय,
हल्द्वानी, (नैनीताल), उत्तराखण्ड।
2. कुल सचिव,
समस्त राज्य विश्वविद्यालय।
उत्तराखण्ड।

उच्च शिक्षा अनुभाग-2

देहरादून, दिनांक 07 अगस्त, 2025

विषय: उच्च शिक्षा विभाग, उत्तराखण्ड अंतर्गत राज्य विश्वविद्यालयों एवं शासकीय महाविद्यालयों से विज्ञान संवर्ग के शिक्षकों के आई०आई०एस०सी०, बैंगलोर में प्रशिक्षण के संबंध में।

महोदय,

उपर्युक्त विषयक अवगत कराना है कि उच्च शिक्षा विभागान्तर्गत राज्य विश्वविद्यालय परिसर एवं महाविद्यालयों के विज्ञान वर्ग के शिक्षकों के आई०आई०एस०सी० बैंगलोर में प्रशिक्षण एवं संस्थागत छात्रों के भ्रमण/प्रशिक्षण के संबंध में दिनांक 11 फरवरी 2025 को हुए समझौता ज्ञापन के क्रम में राज्याधीन विश्वविद्यालयों एवं सम्बद्ध महाविद्यालयों के 200 शिक्षकों को प्रतिवर्ष आई०आई०एस०सी०, बैंगलोर में प्रशिक्षण प्रदान किया जाएगा। उक्त प्रशिक्षण कार्यक्रम के प्रथम चरण हेतु आई०आई०एस०सी०, बैंगलोर द्वारा दिनांक 15 अगस्त, 2025 से दिनांक 30 अगस्त 2025 तक का समय तथा द्वितीय चरण हेतु दिनांक 28 दिसम्बर, 2025 से दिनांक 12 जनवरी 2026 तक का समय प्रदान किया गया है। उक्त अवधि में विज्ञान वर्ग के 50 छात्रों के भी 03-03 दिन के भ्रमण एवं प्रशिक्षण कार्यक्रम की सहमति प्रदान की गयी है।

2- उक्त के परिप्रेक्ष्य में विज्ञान वर्ग के शिक्षकों के प्रशिक्षण कार्यक्रम के प्रथम चरण हेतु शिक्षकों के एच ईडेक्स, शोध एवं पुस्तकों के प्रकाशन के मानक के आधार पर भौतिक विज्ञान, रसायन विज्ञान, गणित, वनस्पति विज्ञान एवं जीव विज्ञान के पृथक-पृथक 20-20 शिक्षकों अर्थात् कुल कुल 100 शिक्षकों (संलग्न सूची अनुसार) का बैच तैयार कर प्रशिक्षण कार्यक्रम हेतु चयन किया गया है। उक्त चयनित शिक्षकों की दिनांक 14 अगस्त, 2025 को आई०आई०एस०सी०, बैंगलोर में उपस्थिति अनिवार्य है।

उक्त प्रशिक्षण कार्यक्रम को शिक्षकों के वैयक्तिक प्रोन्नति हेतु कैरियर एडवांसमेंट के लिए स्वीकार किया जाएगा। राज्य विश्वविद्यालय के समस्त कुलसचिव एवं निदेशक, उच्च शिक्षा से यह अपेक्षा है कि चूंकि राज्य सरकार द्वारा शिक्षकों को प्रशिक्षण की विशेष

व्यवस्था अमल में लायी जा रही है, अतः शिक्षकों को वैयक्तिक प्रोन्नति हेतु कैरियर एडवांसमेंट के लिए अन्य प्रशिक्षण कार्य हेतु अवकाश अनुमन्य करने से पूर्व शासन की सहमति अवश्य प्राप्त कर ली जाय। प्रशिक्षण कार्यक्रम में प्रतिभाग हेतु शिक्षकों को अनुमन्य यात्रा भत्ता उनके संबंधित संस्थान से देय होगा, किन्तु प्रशिक्षण अवधि में किसी भी प्रकार का अन्य दैनिक भत्ता अनुमन्य नहीं होगा।

3- उक्त के सम्बन्ध में मुझे यह कहने निदेश हुआ है कि कृपया उक्त प्रशिक्षण कार्यक्रम में निर्धारित कार्यक्रमानुसार प्रतिभाग किये जाने हेतु चयनित शिक्षकों को अपने स्तर से निर्देशित करने का कष्ट करें तथा निदेशक, उच्च शिक्षा एवं कुलसचिव, समस्त राज्याधीन विश्वविद्यालय परस्पर समन्वय करते हुए शासकीय महाविद्यालयों एवं राज्य विश्वविद्यालयों से विद्यार्थी शैक्षिक भारत दर्शन योजना अंतर्गत विज्ञान वर्ग के 50 छात्रों को भी उक्त प्रशिक्षण अवधि में आई०आई०एस०सी०, बैंगलोर भेजना सुनिश्चित करें।

निदेशक, उच्च शिक्षा से यह भी अपेक्षा की जाती है कि निदेशालय स्तर पर प्रशिक्षण मद में उपलब्ध धनराशि में से आई०आई०एस०सी०, बैंगलोर को उक्त प्रशिक्षण कार्यक्रम हेतु नियमानुसार अग्रिम धनराशि का भुगतान करने का कष्ट करें।

संलग्न: यथोक्त।

Digitally signed by मवदीय
Ranjit Kumar Sinha
Date: 01-08-2025
18:23:49

(डॉ० रंजीत कुमार सिन्हा)
सचिव, उच्च शिक्षा

पृष्ठांकन संख्या: 319152/XXIV-C-2/2025-17(04)/2025 तदुद्दिनांकित।
निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।

1. निजी सचिव, मा० मंत्री, उच्च शिक्षा उत्तराखण्ड सरकार को मा० मंत्री महोदय के संज्ञानार्थ।
2. निदेशक, आई०आई०एस०सी०, बैंगलोर।
3. मा० कुलपति, समस्त राज्य विश्वविद्यालय, उत्तराखण्ड।
4. अपर सचिव/संयुक्त सचिव/उप सचिव/अनु सचिव, उच्च शिक्षा विभाग, उत्तराखण्ड शासन।
5. प्रो० सुब्बा रेड्डी, समन्वयक, टैलेन्ट डेवलेपमेंट सेन्टर एण्ड स्किल डेवलेपमेंट सेन्टर, आई०आई०एस०सी०, बैंगलोर।
6. संबंधित प्राध्यापक द्वारा संबंधित कुलसचिव/निदेशक, उच्च शिक्षा/परिसर निदेशक/प्राचार्य।
7. संयुक्त निदेशक/उप निदेशक/सहायक निदेशक उच्च शिक्षा विभाग, उत्तराखण्ड द्वारा निदेशक, उच्च शिक्षा।

Digitally signed by
BYOMKESH DUBEY
Date: 06-08-2025
18:44:48 (ब्योमकेश दुबे)
उप सचिव

Government order regarding the Advanced Refresher Course at the IISc Bengaluru



All subject facilities, inspired by world-class IISc standards

Introduction

This report provides an in-depth narrative of my participation in the Advanced Refresher Course in Life Sciences held at the Indian Institute of Science (IISc), Challakere Campus, Bengaluru, from 15 August to 30 August 2025. Organized by one of India's premier research institutions, the programme offered a unique opportunity to engage with leading scientists, explore modern teaching methodologies, and enhance academic and research competencies.

Chronology of Events

1. Preliminary Meeting – 13 August 2025

Before the commencement of the course, a preparatory meeting was held in Dehradun with the Higher Education Secretary and officials. The briefing covered the goals, expectations, and relevance of the course, along with guidelines on conduct and participation.

2. Arrival at Challakere – 14 August 2025

Arrival at the Challakere Talent Development Centre involved accommodation arrangements and orientation regarding campus facilities. The eco-friendly, serene environment contributed positively to learning.

3. Independence Day Celebration – 15 August 2025

The programme began with the Independence Day flag hoisting. This was followed by an address from the Director of IISc Challakere, who introduced the institution's history, achievements, and the training schedule.

4. Commencement of Training

A pre-test in Life Sciences marked the start of academic activities. The trainers explained the complete plan, including mini research projects, lab sessions, theory classes, assignments, and daily academic engagements.

5. Academic Engagements and Laboratory Training

The training included hands-on experiments, concept-based lectures, NEP 2020-aligned pedagogy workshops, and collaborative discussions. Key learning areas included molecular biology, ecology, biochemistry, and innovative teaching strategies.

6. Final Assessment & Award Ceremony – 30 August 2025

The final assessment evaluated conceptual and practical knowledge. I secured the highest score in the evaluation and was awarded the ‘Best Performer Award,’ a moment of immense pride.

7. Return Journey

After completion, we returned to Delhi from Bengaluru, enriched with academic insights and motivation.

Outcomes and Reflections

- Strengthened understanding of Life Sciences
- Exposure to modern laboratory techniques
- Enhanced research aptitude
- Improved teaching methodology
- Award recognition boosting confidence
- Academic networking with IISc faculty

Conclusion

The Advanced Refresher Course at IISc Challakere was academically enriching and professionally transformative. It strengthened research skills, teaching methods, and scientific understanding. I extend gratitude to the Higher Education Department, IISc Bengaluru, and my college administration for this valuable opportuni



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Systematic efforts yields insights of enduring value

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बेरीनाग। राजकीय स्नातकोत्तर महाविद्यालय में उच्च शिक्षा विभाग उत्तराखंड अन्तर्गत राज्य विश्वविद्यालय एवं राजकीय महाविद्यालय के विज्ञान संवर्ग के शिक्षकों हेतु आई. आई. एस. सी.बेंगलुरु (15 अगस्त से 30 अगस्त) द्वारा संचालित प्रशिक्षण कार्यक्रम के प्रथम चरण में महाविद्यालय के वनस्पति विज्ञान विभाग की असिस्टेंट प्रोफेसर डॉ. बीना लोहिया, रसायन विज्ञान विभाग के असिस्टेंट प्रोफेसर डॉ. महेश विश्वकर्मा, जन्तु विज्ञान विभाग के असिस्टेंट प्रोफेसर डॉ. अमन वर्मा तथा डॉ. विशाल टम्टा ने प्रतिभाग किया। इस प्रशिक्षण कार्यक्रम में डॉ. अमन वर्मा को बेस्ट परफॉर्मेंस अवॉर्ड तथा डॉ. बीना लोहिया को बेस्ट प्रोजेक्ट अवार्ड मिला। महाविद्यालय के प्राचार्य प्रोफेसर बी.एम. पाण्डेय, समस्त प्राध्यापक तथा शिक्षणेत्तर कर्मचारियों ने उक्त प्राध्यापकों को बधाई देते हुए इस उपलब्धि पर खुशी जताई है।

OUTCOME OF THE COURSE

1. Significant Enhancement of Pedagogical Expertise

The training provided a comprehensive understanding of modern, learner-centric teaching methods aligned with **NEP-2020**. Participants gained exposure to innovative instructional strategies such as outcome-based education, problem-driven learning, and inquiry-oriented teaching. These approaches empower educators to create more engaging, interactive, and conceptually rich classroom environments. As a result, teachers are now better equipped to address diverse learning styles and promote deeper student understanding.

2. Deep strengthening of subject Mastery

The advanced lectures delivered by distinguished IISc professors helped participants revisit core life science concepts and explore emerging scientific developments. Topics were explained with greater analytical depth, enhancing both theoretical and applied understanding. This deepened subject knowledge enables participants to deliver lessons with improved confidence, accuracy, and conceptual clarity—ultimately elevating the academic quality of their respective institutions.

3. Extensive Hands-on Research Exposure

A major highlight of the course was the exposure to research-grade laboratory setups and modern scientific instruments. Participants performed hands-on experiments in fields such as molecular biology, biochemistry, physiology, and ecology. This practical experience greatly improved their technical competency, enabling them to translate research-based learning into classroom teaching. The mini-research projects also encouraged scientific curiosity and strengthened their ability to guide student research effectively.

4. Advanced Skills in Experimental Design & Scientific Interpretation

The programme provided step-by-step training on designing experiments, developing hypotheses, performing data collection, analysing results, and interpreting findings. Participants learned how to maintain precision, accuracy, and reproducibility in scientific work. These refined skills are invaluable for conducting undergraduate practical sessions and mentoring students in experimental sciences, thereby improving the overall laboratory culture in their institutions.

5. Integration of Research with Teaching

A strong emphasis was placed on bridging theoretical knowledge with real scientific research. Participants learned how to incorporate research examples, case studies, and experimental evidence into regular teaching practices. This integration helps students understand the practical relevance of scientific concepts and motivates them to pursue further studies or careers in research. It also transforms classrooms into spaces of intellectual inquiry rather than rote learning.

6. Strengthened Critical Thinking & Analytical Abilities

The course encouraged scientific reasoning through continuous assessments, group activities, data evaluation tasks, and interactive discussions. Participants were trained to think critically, ask probing questions, evaluate evidence, and develop logical conclusions. This skillset significantly enhances both teaching effectiveness and research capability, promoting problem-solving and analytical thinking among students as well.

7. Elevated Professional Competence & Academic Confidence

Being trained by IISc—the nation’s premier research institution—had a profound impact on participants’ professional identity. Exposure to high academic standards, rigorous scientific discourse, and advanced pedagogical strategies enhanced their overall academic competence. This experience boosted their confidence, broadened their academic horizons, and inspired a renewed sense of responsibility toward quality education.

8. Renewed Motivation for Continuous Learning & Academic Growth

The interactions with leading scientists, exposure to frontier research, and insights into modern scientific challenges stimulated a strong desire among participants to keep learning. The programme nurtured a culture of continuous professional development, academic curiosity, and a commitment to staying updated with global scientific trends. This mindset will significantly contribute to long-term academic growth and institutional development.

9. Expanded Network & Collaborative Opportunities

The course brought together educators from multiple regions, allowing for meaningful academic networking. These connections open avenues for collaborative research projects, joint workshops, academic exchanges, and interdisciplinary initiatives. Such collaborations can enhance departmental activities, improve institutional visibility, and foster a collaborative academic ecosystem.

10. Improved Academic Output & Institutional Contribution

Participants are expected to apply their newly acquired skills to:

- Deliver more structured, insightful, and engaging lectures
- Conduct high-quality laboratory sessions using modern techniques
- Provide better guidance for student projects and dissertations
- Improve academic results through effective teaching strategies
- Contribute to innovation-driven departmental activities

This will collectively enhance the academic performance and reputation of their institutions.

11. Leadership Development & Professional Recognition

Achievements such as performing consistently well during the course and receiving distinctions—like the **Best Performer Award** reflect strong leadership potential. Such recognition not only elevates the individual's professional profile but also inspires colleagues and students. Participants return with greater confidence, improved leadership capabilities, and a strong commitment to academic excellence.

12. Overall Professional Transformation

The course served as a catalyst for holistic academic growth. From pedagogical enhancement to scientific skill development, from research exposure to confidence building, each aspect contributed to shaping participants into more capable, innovative, and forward-thinking educators. This transformation promises long-term benefits to both the individuals and their institutions.