



# हिमाचल प्रदेश केंद्रीय विश्वविद्यालय

(शाहपुर परिसर, डाक घर शाहपुर, जिलाकाँगड़ा - १७६२०६)

Central University of Himachal Pradesh Shahpur Campus, P.O. – Shahpur, District – Kangra, Himachal Pradesh-176206



### **MINUTES**

ELEVENTH MEETING OF THE BOARD OF STUDIES

OF THE DEPARTMENT OF ENVIRONMENTAL SCIENCES

HELD ON 13th DECEMBER 2021 AT 11.30 AM onwards.

Venue:

SEMINAAR HALL (CUHP, Shahpur Campus)

ONLINE - GOOGLE MEET (http://meet.google.com/iet-rsbb-kxb)

हिमाचल प्रदेश केंद्रीय विश्वविद्यालय

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### (शाहपुर परिसर, डाक घर शाहपुर, जिलाकाँगड़ा - १७६२०६)

## Central University of Himachal Pradesh Shahpur Campus, P.O. – Shahpur, District – Kangra, Himachal Pradesh-176206

File No. EES/1-5 (Vol.II)/CUHP/20/

Dated: 13rd December 2021

### **MINUTES**

The 11<sup>th</sup> meeting of the Board of Studies (BOS) of the Department of Environmental Sciences was held Offline/Online on 13<sup>th</sup> December, 2021 at 11:30 AM onwards at SEMINAAR HALL (CUHP, Shahpur Campus) and ONLINE Google Meet platform (<a href="http://meet.google.com/iet-rsbb-kxb">http://meet.google.com/iet-rsbb-kxb</a>). The following members/invitees attended the meeting:

	Prof. Deepak Pant, Professor & Head, Department of	CONVENER & CHAIRMAN	
1.	Environmental Sciences, Dean, School of Earth and		
MALE	Environmental Sciences		
2.	Prof. AL. Ramanathan, School of Environmental Sciences,	SUBJECT EXPERT	
	Jawaharlal Nehru University, New Delhi - 110067	(Online)	
3.	Prof. Desh Raj Thakur, Department of Bio Sciences,	SUBJECT EXPERT	
	Himachal Pradesh University, Shimla-171005		
	Prof. A. K. Mahajan,	MEMBER	
4.	Department of Environmental Sciences, School of Earth and		
	Environmental Sciences Central University of Himachal		
	Pradesh Product Vision II		
5.	Prof. Pradeep Kumar,	MEMBER (VC NOMINEE)	
٥.	Department of Plant Science, School of Life Sciences, Central University of Himachal Pradesh.	(Online)	
	Dr. Sunil Kumar Kumar, Associate Professor,		
6.	Department of Animal Sciences, School of Life Sciences,	MEMBER (VC NOMINEE) (Online)	
0.	Central University of Himachal Pradesh.		
	Dr. Anurag Linda		
7.			
	Central University of Himachal Pradesh.		
	Dr. AnkitTandon		
8.	Assistant Professor, Department of Environmental Sciences,	SPECIAL INVITEE	
	Central University of Himachal Pradesh.		
14.5	Dr. SubhankarChatterjee, Assistant Professor, Department		
9.	of Environmental Sciences, Central University of Himachal	SPECIAL INVITEE	
	Pradesh.		
10.			
	Assistant Professor, Department of Environmental Sciences,  SPECIAL INVI		
	Central University of Himachal Pradesh.		

Prof. Deepak Pant, Dean, School of Earth and Environmental Sciences (Convener & Chairman of the BOS) welcomed all the members and thanked them for being available and for attending the meeting.

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### THERE AFTER, THE AGENDA ITEMS WERE TAKEN UP AS UNDER:

### **Agenda Items:**

ITEM NO: ENV-BOS-11/21-1: Confirmation of the Minutes of the 10<sup>th</sup> Meeting of the Board of Studies.

The BoS confirmed the Minutes of the 10<sup>th</sup> Meeting of the Board of Studies held on 13<sup>th</sup> December 2021.(Annexure-I)

**ITEM NO: ENV-BOS-11/21-2:** To place before the BoS for its approval of synopsis of various Research Degree Students whose supervisor allotment was made on 10<sup>th</sup>BoS and other special/pending cases.

The BoS approved the Synopsis of various Research Degree Students after implementing suggested changes in the 11<sup>th</sup> Meeting of the Board of Studies held on 13<sup>th</sup> December 2021.(Annexure-II)

**ITEM NO: ENV-BOS-11/21-3:** To place before the BoS for its approval regarding adoption of IKS course in the light of New Education Policy-2020 and the direction of Hon'ble Vice Chancellor.

The BoS approved the adoption of IKS course in the light of New Education Policy-2020 and the direction of Hon'ble Vice Chancellor. (Annexure-III)

ITEM NO: ENV-BOS-11/21-4: To place before the BoS for its approval, of remitting the name of Prof Sabu Thomas as co-supervisions in the PhD work of Miss Anvita Sheel as recommend from RAC.

The BoS authorised the Dean, School of Earth and Environmental Sciences to make a final communication regarding the above case and thereafter final decision will be taken and will be intimated to the BOS member respectively.

### THE MEETING ENDED WITH A VOTE OF THANKS TO THE CHAIR.

Dr.Dilbag Singh (Special Invitee)

Or Ankit Tandon (Special Invitee)

Prof. Pradeep Kumar (Member- VQ)Npminee)

Dr Anurag Linda (Member)

Prof. Desh Rai Thakur

(Subject Expert)

Dr. Subhankar Chatterjee (Special Invitee)

Dr. Sunil Kumar Kumar (Member- VC Nominee)

online

Prof. A. K. Mahajan

(Member)

Prof. AL. Ramanathan (Subject Expert)

Prof. Deepak Paint (Chairman and Convener)





# हिमाचल प्रदेश केंद्रीय विश्वविद्यालय

## Central University of Himachal Pradesh

(Established under Central Universities Act 2009)

Dharamshala, Distt. Kangra, Himachal Pradesh- 176215

(Shahpur Campus, Shahpur, Kangra, Himachal Pradesh, India - 176206)



### **MINUTES**

TENTH MEETING OF THE BOARD OF STUDIES OF THE DEPARTMENT OF ENVIRONMENTAL SCIENCES HELD ON 25<sup>TH</sup>SEPTEMBER, 2021 AT 11.45 AM onwards.

**Venue: ONLINE - GOOGLE MEET** 





## हिमाचल प्रदेश केंद्रीय विश्वविद्यालय Central University of Himachal Pradesh

(Established under Central Universities Act 2009)
Dharamshala, Distt. Kangra, Himachal Pradesh- 176215
(Shahpur Campus, Shahpur, Kangra, Himachal Pradesh, India - 176206)

File No. EES/1-5 (Vol.II)/CUHP/....

Dated: 25th September, 2021

### **MINUTES**

The 10<sup>th</sup>meeting of the**Board of Studies(BOS) of** the**Department of Environmental Sciences** was held **Online** on 25<sup>th</sup> September, **2021** at **11.45 AM onwards** on Google Meet platform. The following members/invitees attended the meeting:

1.	Prof. Deepak Pant, Professor &Head, Department of Environmental Sciences, Dean, School of Earth and Environmental Sciences	CONVENER & CHAIRMAN
2.	<b>Prof. AL. Ramanathan</b> , School of Environmental Sciences, Jawaharlal Nehru University, New Delhi - 110067	SUBJECT EXPERT
3.	Prof. Desh Raj Thakur, Department of Bio Sciences, Himachal Pradesh University, Shimla-171005	SUBJECT EXPERT
4.	<b>Prof. A. K. Mahajan,</b> Professor, Department of Environmental Sciences, Central University of Himachal Pradesh	MEMBER
5.	Prof. O.S.K.S. Sastri, Professor, School of Physical and Material Sciences, Central University of Himachal Pradesh	MEMBER (VC NOMINEE)
6.	Dr. Vikram Singh, Assistant Professor, Centre for Computational Biology & Bioinformatics, School of Life Sciences, Central University of Himachal Pradesh.	MEMBER (VC NOMINEE)
7.	Dr. AnkitTandon Assistant Professor, Department of Environmental Sciences, Central University of Himachal Pradesh.	SPECIAL INVITEE
8.	<b>Dr. SubhankarChatterjee</b> , Assistant Professor, Department of Environmental Sciences, Central University of Himachal Pradesh.	SPECIAL INVITEE
9.	Dr. Dilbag Singh Assistant Professor, Department of Environmental Sciences, Central University of Himachal Pradesh.	SPECIAL INVITEE

The following members could not attendthe meeting:

	Dr. Anurag Linda	
1.	Assistant Professor, Department of Environmental Sciences, Central University of Himachal Pradesh.	MEMBER

Prof. Deepak Pant, Dean, School of Earth and Environmental Sciences (Convener & Chairman of the BOS) welcomed all the members and thanked them for being available and for attending the meeting.





### THEREAFTER, THE AGENDA ITEMS WERE TAKEN UP AS UNDER:

Agenda Items:

ITEM NO: ENV-BOS-10/21-1: Confirmation of the Minutes of the 9<sup>th</sup> Meeting of the Board of Studies held on 7<sup>th</sup> July, 2020.

The BoS confirmed the Minutes of the 9th Meeting of the Board of Studies held on 7th July, 2020.(Annexure-I)

ITEM NO: ENV-BOS-10/21-2: To place before the BoS for its approval, a revised structure the M.Sc. Environmental Science programme in the light of New Education Policy-2020. All the revisions made, time to time, in the syllabus of different courses of the M.Sc. Environmental Science programme as per the NEP-2020 guidelines will be reported to the upcoming BOS meetings.

The BoS approved the revised structure the M.Sc. Environmental Science programme in the light of New Education Policy-2020. (Annexure-II)

**ITEM NO: ENV-BOS-10/21-3:** To place before the BoS for its approval Adoption of Blended mode of learning in MSc Environmental Science programme and course work of PhD Environmental Science programme in the light of New Education Policy-2020.

The BoS approved the Adoption of Blended mode of learning in MSc Environmental Science programme and course work of PhD Environmental Science programme in the light of New Education Policy-2020.

**ITEM NO: ENV-BOS-10/21-4:** To place before the BoS for its approval Adoption of Multiple Entry-Exit system in MSc Environmental Science programme in the light of New Education Policy-2020.

The BoS approved the Adoption of Multiple Entry-Exit system in MSc Environmental Science programme in the light of New Education Policy-2020.

**ITEM NO: ENV-BOS-10/21-5:** To place before the BoS for its approval, the list of new courses to be introduced in the proposed revised structure of the MSc Environmental Science programme as per NEP-2020.

The BoS approved the list of new courses to be introduced in the proposed revised structure of the MSc Environmental Science programme as per NEP-2020. (Annexure-III)

ITEM NO: ENV-BOS-10/21-6: To place before the BoS for its approval, the list of Supervisor and Co-supervisors allotted to the following Research Degree Students admitted for Ph.D. degree programme in the session 2020-2021.





# BoS approved the allotment of Supervisor and Co-supervisors to the following Research Degree Students admitted to Ph.D. degree programme in the session 2020-2021 as follows:

Sr. No.	Registration No.	Students Name	Supervisor Allotted	Co-Supervisor Allotted
1. 2. 3. 4. 5. 6.	CUHP20RDENV01 CUHP20RDENV03 CUHP20RDENV04 CUHP20RDENV04 CUHP20RDENV06 CUHP20RDENV07	Akshay Dharneshwari Sharma KomalKundal Priyanka Priyanka Chaudhary RichaPanjla	Dr.Dilbag Singh Prof.A.K.Mahajan Prof.A.K.Mahajan Prof.A.K.Mahajan Dr.Subhankar Chatterjee Prof.A.K.Mahajan	Dr. Sanjay Panday, Scientist, Central Ground Water Board, Ministry of Jal Shakti, Govt. of India, Dharmshala, H.P
7.	CUHP20RDENV08 CUHP20RDENV09		Dr.Dilbag Singh Dr.SubhankarChatterjee	

In the case of Mr. Deepak Sharma (CUHP20RDENV02), the following facts have come to the notice of the BoS members regarding allocation of supervisor.

- 1. Statement received by the then head and dean of the department and school was received and recorded as Annexure A.
- 2. Statement received from Dr Pankaj Thakur former Associate Professor (Leave vacancy), Department of Environmental Sciences, Central University of Himachal Pradesh, Dharamshala (Currently Associate Professor, Jawaharlal Nehru University) as *Annexure B*.

### DISCUSSION AND RESULATION

Based on the expertise of Dr Dilbag Singh, an Assistant Professor in the Department of Environmental Sciences, Central University of Himachal Pradesh will be the prospective supervisor of Mr Deepak Sharma (CUHP20RDENV02). The BoS further took the advice of Dr.Dilbag Singh regarding the fact: Even though Dr.Dilbag Singh gave his consent for supervising Mr Deepak Sharma in front of all the BOS

Even though Dr.Dilbag Singh gave his consent for supervising Mr Deepak Sharma in front of all the BOS membersin the interest of student, but he has submitted that he already has exhausted his maximum number (04) of PhD students as per the UGC guideline.

It was finally resolved from the members that the candidate (Mr Deepak Sharma) can be permitted to do his research with Dr Dilbag Singh subject to the supernumerary PhD seat permission to him from the competent authority and accordingly he will make further association with Dr Pankaj Thakur as per the rules.

Annexure A



25/09/2021, 08:21

Yahoo Mail - Re: दीपक शर्मा शोध छात्र पर्यावरण विज्ञान विभाग के पर्यवेशक नियुक्त करने के सम्बन्ध में।

### Re: दीपक शर्मा शोध छात्र पर्यावरण विज्ञान विभाग के पर्यवेक्षक नियुक्त करने के सम्बन्ध में |

From: Ambrish Mahajan (akmahajan@rediffmail.com)

To: dpant2003@yahoo.com; rajeev025singh@gmail.com

Cc: dilbagrana@gmail.com; thakurpankaj535@gmail.com

Date: Thursday, 23 September, 2021, 05:50 pm IST

### Dear Dr Pant

Mr Deepak has joined as research scholar after getting recommendations from Dr Pankaj Thakur, who was faculty of the department (on lien)at that time. However Dr Pankaj Thakur was relieved from university on his selection in JNU as Associate Professor. Dr Pankaj was an expert in Nano Technology and we have similar expertise available is Dr Dilbag Singh, so keeping in view the interest of student and his field of inetrest shown at the time of his admission. I recommend that Mr Deepak Sharma may kindly be allot to Dr Dilbag Singh with co supervision of Dr Pankaj Thakur. Regards
Prof. A.K. Mahajan
Professor, ENV

From: rajeev singh <rajeev025singh@gmail.com> Sent: Thu, 23 Sep 2021 17:27:38 GMT+0530 To: Ambrish Mahajan <akmahajan@rediffmail.com> Subject: दीपक शर्मा शोध छात्र पर्यावरण विज्ञान विभाग के पर्यविक्षक नियुक्त करने के सम्बन्ध में |

### आदरणीय महोदय

में पर्यावरण विज्ञान विभाग के विभागाध्यक्ष के आदेशानुसार तिख रहा हूँ कि संकतित ईमेत प्राप्त करें कि

केंद्रीय विश्वविद्यालय हिमाचल प्रदेश के पर्यावरण विज्ञान विभाग के शोध छात्र श्री दीपक शर्मा से डॉ. पंकज ठाकुर के हस्ताक्षर के साथ प्रार्थना पत्र प्राप्त हुआ है। दीपक शर्मा का पी. एच. डी. में दाखिला आपके पर्यावरण विज्ञान विभाग में अधिष्ठाता तथा विभागाध्यक्ष कार्यकाल में हुआ था अतः : आपसे विनम्न अनुरोध है कि दीपक शर्मा शोध छात्र पर्यावरण विज्ञान विभाग के पर्यवेक्षक नियुक्ति के बारे में अपनी राय (Remarks) प्रदान करने की कृपा करें।

धन्यवाद

सादर

राजीव सिंह डाटा ऐट्टी ऑपरेटर पर्यावरण विज्ञान विभाग contact no. 9805202021



25/09/2021, 08:23

Yahoo Maai - Fwid: रीपक पार्मा चोध छात्र पर्यावरण विज्ञान विभाग के पर्यवेक्षक नियुक्त करने के सम्बन्ध में |

## Fwd: दीपक शर्मा शोथ छात्र पर्यावरण विज्ञान विभाग के पर्यवेक्षक नियुक्त करने के सम्बन्ध में |

From: rajeev singh (rajeev025singh@gmail.com)

dpant2003@yahoo.com

Date: Friday, 24 September, 2021, 05:41 pm IST

Forwarded message From: Pankai Thakur <chemoank@omail.com> Date: Fri, Sep 24, 2021 at 4:50 AM Subject Re: दीपक रामी राोध छात्र पर्यावरण विज्ञान विभाग के पर्यवक्षक नियुक्त करने के सम्बन्ध में । To: rajeev singh < rajeev025singh@gmail.com>

Cc: < registrar@hocu.ac.in>

Dear Rajeev Ji,

As per the information sought in your trailing email, please see below my responses:

1. I give my full consent with reference to the facts and requests presented in the application of Mr Deepak Sharma (PhD student) which I got in your trailing mail

2. As I consented affirmatively to continue guiding Mr Deepak Sharma, I am seeking an NOC from my present

University/Department. Also, because of strict Covid protocols here, it may take some time!

3. Since you have put forth the Ordinance 42 of the CUHP, therefore I intend to consult/request a few of the present Faculty members of the CUHP keeping in mind the common research interests and their availability as well.

#### Thanks

On Thu, Sep 23, 2021 at 5:16 PM rajeev singh <a href="mailto:rajeev025singh@gmail.com">rajeev025singh@gmail.com</a> wrote: आदरणीय महोदय

मैं पर्यावरण विज्ञान विभाग के विभागाध्यक्ष के आदेशानुसार लिख रहा हूँ कि संकलित ईमेल प्राप्त करें तथा इसी प्रार्थना पत्र के सम्बन्ध में कुछ महत्वपूर्ण तथ्य प्रस्तुत है:-

(1) केंद्रीय विश्वविद्यालय हिमाचल प्रदेश के पर्यावरण विज्ञान विभाग के शोध छात्र श्री दीपक शर्मा से आपके हस्ताक्षर सहित प्रार्थना पत्र प्राप्त हुआ है जो कि इस ईमेरा में संकटित है क्या आप इसके सम्बन्ध में सहमत हैं।

(2) यदि आप सहमत् हैं तो कृपया अपने तिश्वतिदालय / तिभाग जिसमें आप अभी कार्यरत हैं उनसे एक अनापत्ति (NOC) प्रमाण पत्र

केंद्रीय विश्वविद्यालय हिमाचल प्रदेश के पर्यावरण विज्ञान विभाग को देने की कृपा करें।

(3) केंद्रीय विश्वविद्यालय हिमाचल प्रदेश के अध्यादेश 42 के अनुसार पर्यवेक्षक अपने विश्वविद्यालय का ही होना चाहिये। किसी दुसरे संस्थान। विश्वविद्यातय के विषय एक्सपर्ट को सह पर्यवेक्षक ही नियुक्त किया जा सकता है इसतिए आपसे अनुरोध है कि केंद्रीय विश्वविद्यालय हिमाचल प्रदेश के गर्गावरण विज्ञान विभाग में से किसी को दींगक शर्मा का गर्गविक्षक निगुनत होने की सहमति प्रदान करवाएं तभी आगको सह पर्यवेक्षक नियक्त किया जा सके।

धन्यवाद

HIGH

राजीव सिंह हाटा एंटी ऑपरेटर पर्यावरण विज्ञान विभाग



THE MEETING ENDED WITH A VOTE OF THANKS TO THE CHAIR.

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पिलगा रिन्ह

(Dr.Dilbag Singh)

(Dr Ankir andon)

Approved through Email

(Prof. O.S.K.S. Sastri)

Approved through Email

(Prof. Desh Raj Thakur)

(Dr.Subhankar Chatterjee)

Approved through Email (Dr.Vikram Singh)

Approved through Email

(Prof. A. K. Mahajan)

Approved through Email

(Prof. AL. Ramanathan)

Prof. Deepak Pant) विभागितालामा बार्स किंग्रेस प्रदेशीं Head, Department of Environmental Sciences हिमायल प्रदेश केन्द्रीय विश्वविद्यालय Central University of Himachal Pradesh अस्थायी शैक्षणिक सण्ड/Temporary Academic Block शाहपुर, कांग्रेझ (हि.प्र.)/Shahpur, Kangra (H.P.)-176206 10th Bos

### Implementation of CBCS under NEP Guidelines

1st Semester:			
Course Type	Course Code	Course Name	Credit
Major Courses	ENV 401	Introduction to Ecology	2
	ENV 402a	Introduction to Earth Processes	2
	ENV 403	Environmental Chemistry	4
	ENV 445	Environmental Chemistry Laboratory	2
	ENV 501	Environmental Pollution and Human Health	2
	ENV 516	Atmospheric Science	2
Vocational / Skill	ENV 411	Waste Management	2
Interdisciplinary course	ENV 443	Basics of climate change	2
offered to other department (Minor Course)	ENV 508	Environmental Ethics	2
Indigenous Knowledge System	ENV 449	Indigenous Knowledge System	2
2nd Semester:			
Course Type	Course Code	Course Name	Credits
Major Courses	ENV 424	Fundamentals of Remote Sensing	2
	ENV 428	Himalayan Geology	2
	ENV 432	Introduction to Statistical Techniques	4
	ENV 444	Environmental Geo Science Lab	2
	ENV447	Computational Statistical Analysis Laboratory	2
	ENV 577	Carbon Management	2
Interdisciplinary course	ENV 408	Biodiversity and wild life management	2
offered to other department (Minor Course)	ENV 547	Contemporary environmental issues	2
Vocational / Skill	ENV 524	Environmental impact Assessment	2
Indigenous Knowledge System	ENV 441	Water Resource Conservation in Hilly Region	2

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## Annexure - II

ENROLLMENT NO.	OLD TOPIC	REVISED TOPIC
CUHP17RDENV02	Studies on long-term variations in rainfall characteristics over Indian regions	Studies on Long-term Variations in Rainfall Characteristics over Indian Subcontinent
CUHP17RDENV09	Study of mass closure and source apportionment of PM <sub>2.5</sub> aerosol over Jammu, India	Studies of Mass Closure and Source Apportionment of PM <sub>2.5</sub> Aerosol In Jammu City of J&K (UT) India
CUHP20RDENV04	Site Characterization of Kathua city of Kathua district, J&K, India using geophysical approaches for the upper 30 m depth	Site characterization using geophysical approache for upper 30m soil column of Kathua city of J&K (UT) India
CUHP20RDENV03	Seismic Hazard Analysis of North-West Himalaya with Special Reference to Reasi District (Reasi-Katra Belt) of Jammu Province, J&K, India.	Seismic Hazard Analysis of North-West Himalaya with Special Reference to Reasi-Katra Belt of J&K (UT), India
CUHP20RDENV07	Hydro-chemical assessment of Groundwater, Springwater, and major water supply drains around Jawalamukhi town, District Kangra, North-West Himalaya	Hydro-chemical assessment of Groundwater, Spring water, and Surface water around Jawalamukhi, District Kangra, Himachal Pradesh
CUHP20RDENV05	Site amplification study of Mohali city using Geophysical and Geotechnical approaches.	Studies on the site amplification of Mohali city by using Geophysical and Geotechnical approaches
CUHP18RDENV01	Studies on Ozone dynamics over Indian region	Studies on the Ozone Dynamics over Indian Subcontinent
CUHP17RDENV12	Assessment of Hydro Geochemical Status of Springs of Dharamshala and Kangra Block, Himachal Pradesh	Assessment of Hydro Geochemical Status of Springs of Dharamshala and Kangra Blocks, Himachal Pradesh, India
CUHP17RDENV05	Integrated disease management of the Wet Bubble Disease in white button mushroom ( Agaricus bisporus)	Integrated eco-friendly disease management of the Wet Bubble Disease in white button mushroom, <i>Agaricus bisporu</i> (Agaricaceae: Agaricales)
CUHP18RDENV02	Site characterisation of Shimla city using ambient noise measurements and response analysis of built environment	Site characterisation of Shimla city using ambient noise measurements and spectral response analysis of built up environment
CUHP17RDENV11	Glacier Dynamics of Ravi and Bhaga Basins Western Himalaya, India using Remote Sensing and Geospatial Tools	Glacier Dynamics of Ravi and Bhaga Basins of Western Himalaya, using Remote Sensing and Geospatial Tools
CUHP20RDENV01	Study of Spatio-Temporal Variation in Atmospheric Ammonia over District Kangra, Himachal Pradesh.	Studies on Spatio-Temporal Variation in Atmospheric Ammonia over District Kangra of Himachal Pradesh
CUHP20RDENV08	Metal Organic Framework based Composites for Electrochemical Sensing of Toxic Metal Ions	Studies on Metal Organic Framework based Composites for Electrochemical Detection of Toxic Metal Ions
CUHP17RDENV08	Synthesis of Carbon Based Nanocomposite for Electrochemical Detection of Pharmaceutical Drugs	Studies of Carbon Based Nanocomposite for Electrochemica Detection of Pharmaceutical Drugs
CUHP20RDENV06	Isolation of psychrotrophs from western Himalayas, Exploring their Biotechnological Applications	Studies on Isolation and Biotechnological Applications of Psychrotrophs from Western Himalayas
CUHP20RDENV09	Bioremediation Study of Fluoroquinolone Antibiotics and in-silico Analysis of Antibiotic Degrading Microbial Enzymes	Bioremediation Studies of Fluoroquinolone Antibiotics and in-silico Analysis of Antibiotic Degrading Microbial Enzymes
CUHP20RDENV02	Ecological Features of Atmospheric Nanoparticles and Green Synthesis of Nanoparticles as Alternative for Environmental Applications	Ecological Studies on Atmospheric Ultrafine Particles and Synthesis of Plant Derived Nanoparticles for Environmental Applications

Charles Jan Decroen

Annexure III

फाइल सं: 1-1/हि.प्र.कें.वि./शै/2010/खंड/VIII/ न5निश्चित्रात्व प्रदेश केन्द्रीय विश्वविद्यालय

Central University of Himachal Pradesh
(अकादमिक शाखा /Academic Branch)

अमृत महोत्स

धर्मशाला - 176215

दिनांकः १२नवम्बर, २०२१

## अधिसूचना

माननीय कुलपित महोदय के अनुमोदन के अनुसार विश्वविद्यालय में सभी स्नातकोत्तर (Post-graduate) स्तर की डिग्री पूर्ण करने हेतु 02 क्रेडिट का कोर्स "भारतीय ज्ञान पद्धित [Bhartiya Knowledge System(IKS)] सत्र 2021-22 से लागू किया जाता है जिसके Course Contents निम्न प्रकार से है इसके Learning Outcomes अलग से अधिसूचित किये जायेंगे:

Credits: 2 (20 Hours)

UNIT -I: Bhāratīya Civilization and Development of Knowledge System (4 hours)
Antiquity of civilization, Discovery of the Saraswatī River, the Saraswatī-Sindhu Civilization,
Traditional Knowledge System, The Vedas, School of Philosophy (6+3), Ancient Education
System, the Takṣaśilā University, the Nālandā University

UNIT-II: Arts, Literature, and Scholars in Ancient Bharat

Art, Music, and Dance, Naţarāja— A Masterpiece of Bhāratīya Art, Literature, Life and works of Agastya, Lopāmudrā, Ghoṣā, Vālmīki, Patañjali, Vedavyāsa, Yājňavalkya, Gārgī, Caraka, Suśruta, Kaṇāda, Kauţīlya, Pāṇini, Thiruvalluvar, Āryabhaṭa, Bhāskarācārya, Mādhavācārya.

UNIT-III: Ancient Bhartiya Contribution towards Science & Mathematics (4 hours)
Sage Agastya's Model of Battery, Vedic Cosmology and Modern Concepts, Concept of Zero and
Pi, Number System, Phythagoras Theroem, and Vedic Mathematics; Kerala School for
Mathematics and History of Culture of Astronomy, Astronomical \_\_\_\_ of day, year and Yuga.

UNIT-IV: Ancient Bhartiya Engineering, Technology & Architecture

Pre-Harappan and Sindhu Valley Civilization, Juices, Dyes, Paints and Cements, Glass and Pottery, Metallurgy, Iron Pillar of Delhi, Rakhigarhi, Mehrgarh, Sindhu Valley Civilization, Marine Technology, and Bet-Dwārkā.

UNIT-V: Ancient Bhartiya Contribution in Environment & Health (4 hours)

Ethnic Studies, Life Science in Plants, Agriculture, Ecology and Environment, Āyurveda, Integrated Approach to Healthcare, Surgery, and Yoga, etc.

Page 1 of 2

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कुलसचिव(अतिरिक्त प्रभार) दिनांकः 12 नवम्बर, 2021

### पृष्ठांकनः समसंख्या।

### प्रतिलिपि

1. अधिष्ठाता छात्र कल्याण, हि.प्र.के.वि., धौलाधार परिसर-।, धर्मशाला, जिला काँगड़ा (हि.प्र.) |

2. विभिन्न स्कूलों के सभी अधिष्ठाता/ विभिन्न विभागों/केन्द्रों के सभी विभागाध्यक्ष/निदेशक, शाहपुर परिसर/धौलाधार परिसर-1&11, धर्मशाला/सप्त सिन्धु परिसर, देहरा, जिला काँगड़ा |

3. वित्त अधिकारी, हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय, प्रशासनिक ब्लाक, धर्मशाला, ज़िला काँगड़ा।

4. परीक्षा नियंत्रक, हिमाचल प्रदेश केन्द्रीय विश्वविद्यालय, प्रशासनिक ब्लाक, धर्मशाला, ज़िला काँगड़ा |

5. जन-संपर्क अधिकारी, , धौलाधार परिसर-।, हि.प्र.के.वि., धर्मशाला, जिला - काँगड़ा (हि.प्र.) |

6. माननीय कुलपति के सचिव, कुलपति सचिवालय, हि.प्र.के.वि., धर्मशाला, जिला - काँगड़ा (हि.प्र.) |

7. सहायक कुलसचिव, कुलपति सचिवालय – कृपया माननीय कुलपति महोदय के सूचनार्थ |

८. गार्ड फाइल।

कुलसचिव (अतिरिक्त प्रभार)