

(Beneficiaries: 40)

ANNUAL PROGRESS REPORT: 2022-23 STAR COLLEGE SCHEME OF DAV COLLEGE BATHINDA

San. No. BT/HRD/11/019/2020

Date of the Advisory Committee Meetings: 11/11/2020 and 25/05/2022



4	Visit to Pushpa Gujral Science City, Kapurthla	20/11/2022						
	& Lecture on the Topic: "Environmental Education and							
	Sustainable Development" (Beneficiaries: 270)							
5	Visit to Agriculture Research Station, of PAU at Jodhpur Romana,	29/03/2023						
	BATHINDA (Beneficiaries: 30)							

3 Visit to Molecular Lab and Central instrumental Laboratory, Central 20/09/2022



Outreach Interdisciplinary Activities/Demonstrations:

University of Punjab, Bathinda (Beneficiaries: 25)

#	Name of the Activity	Date
1	Sci- Fiesta Poster Competition, Model Making Competition and	11/11/2022
	Demonstrations about Magical World of Science (Beneficiaries:	
	350)	
2	Inter College Poster & Slide Show Competition on "Scientific	04/03/2023
	discoveries that changed Human	
	Life" (Beneficiaries: 60)	
3	One-day Hands-on training on Physics experiments-cum	12/12/2022
	demonstrations for Physics Lecturers (School Cadre)	
	(Beneficiaries: 34)	



For neighboring Schools: Competitions on Poster Making, Model Making and Demonstrations about Magical World of Science

discoveries that changed Human Life"

Training on Physics experiments-cum demonstrations for Physics Lecturers (School Cadre)

T OF BIOTECHNE

<u>Seminars/Webinars/Journal's Club Activities/Training Programmes/Workshops:</u>

(Seminars/webinars/Journal's Club Activ	villes/frammig i	Flogrammes/worksho	<u>ps.</u>				
#	Name of Activity	Resource Persor	۱	12 122	Radiolizeunia	P	er coulour services	
Invite	d Lectures		ton of Edicon Tool Constra 9		1 martine and the second		0 0 0 0 0	
1	Importance of Industrial Training for UG Science Students(13/04/2022) (Beneficiaries: 32)		tor of Edison Tech Centre & ol Pvt. Ltd. Dhuri, Sangrur		The second se		0 2 0 0 0 0	
2	Applications of Physics in Medical Field (27/04/2022)	Dr. Rajiv Dhawan, As			An address of the second second			
	(Beneficiaries: 85)	Professor, Departme				I TANK		
		Radiotherapy, Govt.	IVIEDICAI			- Harden -		
3	Invited Lecture and Poster Making Competition	Dr. Ajay Kumar, Dept		Seminar on Importance of Industrial Training				
	(19/09/2022) (Beneficiaries: 58)	Environment, Scienc Technology, CUP Ba		for UG Science Students (13/04/2022	Applications of Phys	ics in Medical Field		ture and Poster Making Competition
4	Forensic Sciences plays a vital role in criminal cases and	Dr Shweta , Departm				Innovation Hub D.A.V. CO	LLEU prana -	SimPHY Demo (A glimpse of what SimPHY is capable of . Best Simulation Software
	provides an unbiased scientific opinion on evidence	Fronsic Science and				Line Derinster - (Jest 1915-1989		
	Collected (04/03/2023) (Beneficiaries: 140)	Criminology, Punjab University, Chandiga			8	A Constant of the second secon		
Train	ng Programmes / Workshops/Exhibitions	A CONTRACTOR OF THE REAL		Construction of the second sec				
1	Oscilloscopes: DSO Vs. CRO (17/05/2022) (Beneficiaries: 3				1242			
		Professor, DE∨ Ferozepur, Pur	/ Samaj College for Women,			1000 1		
2	MS Excel for Practical based simulations (30/11/2022)	Dr.Vijay Bhat, A					2	
	(Beneficiaries: 31)	Professor, Insti	tute of advanced computing,					
3	SimPHY: A Physics Simulation Software (10/12/2022)	Mr. HITENDRA	ity, Indore, Madhya Pradesh.					
	(Beneficiaries: 20)		Softwares Pvt. LTD. Gwalior,		all the second			
	Lob stoff has been trained in Densir and Maintenance (1)	M.P. (India)	Singh		6.6			
4	Lab staff has been trained in: Repair and Maintenance of the equipment. (02/12/2022) (Beneficiaries: All lab assistants)		' Singh, IERT, Patiala, Punjab		PAR NO STAR	Y		
5	Two day Workshop on "Electronics Projects"	Mr. Sukhvinder	Singh, Coordinator, NIERT,	Seminar on Forensic Science	Oscilloscopes	DSO Vs. CRO	MS Excel for Practical base	d simulations SimPHY: A Physics Simulation Software
6	(02-03/12/2022) (Beneficiaries: 30) Experiments and Demonstrations in Physics (18/04/2023)	Patiala, Punjab	eetu S. Wadhwa & Dr					
0	(Beneficiaries: 47)	Neha Jindal						
				(a) U.A.V. COLLEGE EATIONEL				
	<pre>v Experiments Conducted</pre>			PETER PETERS TRANSPORT			SRON AN AL SCHEL	
CHEI	AISTRY DEPARTMENT							
S.	Aim of the Experiment		Class	THE ADDRESS OF THE AD				
No					and the same			
	Separation of inorganic cationic mixture using chromatograph	ıy.	B.ScI		and the second second			
2	Estimation of nitrogen using Kjeldah's Apparatus		B.ScI					
3	To study of metal ion complexes of EDTA colorimetrically.	o study of metal ion complexes of EDTA colorimetrically. B.ScII						
				Lab staff has been trained in: Repair and				
4	Evaluate the physical parameters- pH, Conductance, TDS, D	O, turbidity,of contamin	ated water B.ScII	Maintenance of the lab equipment.	"Electronics	Experime	nts and Demonstrations in Physics	
5	To find the strength of mixture of acids conductometrically		B.ScII		Projects			
	To find the strength of mixture of acids conductometrically		D.0011		₹ 25/-	दर्शव	ड की मात्रा को कम कर देता आरओ प्लांट	
6	To determine of the amount of Phosphate in a Detergent.		B.ScIII	Bulletin of	₹ 25/- ISSN 2277-8950		नाक स्तर : सार्वजनिक स्वास्थ्य के लिए एक चेतावनी	
				THE INDIAN ASSOCIATION OF PHYS	ICS TEACHERS	जगमार्ग च्यूज उनकी टीम के सदस्यों तनीषा गोयल, 👘 🚺	अस्पोसिस पाने, निजी रिवसं	
7	Separation of Cu, Cr, Pb, ions using Column chromatography	/	B.ScIII	A MONTHLY JOURNAL OF EDUCAT PHYSICS & RELATED AREAS		बठिंडा। डीबीटी स्टार कॉलेज योजना, रमनदीप, जशनदीप और गरिमा बजाज जैव प्रौद्योगिकी विभाग, विज्ञान और द्वारा किया गया।जांच में 296 पानी के	ऑस्मोंसिस पानी और बोतलबंद पानी के उच्च स्तर के लंबे समय तक मेवन	
8	IR Studies of Claisen Schmidt reaction using acetone and be	nzaldehvde	B.ScIII	VOLUME 15 NUMBER 11	NOVEMBER 2023	पौद्योगिकी मंत्रालय तहत हाल ही में नमूनों का सावधानीपूर्वक विश्लेषण एक अध्ययन किया गया, जिसका किया गया, जिसमें भूजल, सतही जल, शीर्षक था बर्टिडा शहर, पंजाब, भारत नगरपालिका रिवर्स ऑस्प्रोपिस पानी	से देते फलारोसिस, स्कलटल फलोरोसिस और अन्य स्वास्थ्य प्राप्यण से प्रहरी है, उन्न निकर्ण के	
U	In Oldes of Claisen Schmidt reaction dsing acetone and be		D.00III	CAPACITANCE MEASUREMENT BY DIGITAL	ARTICLE	गानक का बाठ्य राहर, पंचाव, गांत नगरपालका रिवल आत्मात्सन पाना में विधिन्न आयु समूहों के लिए पीने के (मानसून पूर्व और मानसून के बाद पाने के विधिन्न स्वोनों से फ्लोगहह टोनों सीसम) सार्वजनिक जल	समस्यार हा स्वता हा इन निकाय क निहिताय को देखते हुए, दूर्यित जल म्लोतों में फ्लोगडर के स्वर को कम	
				EXTENSION OF THE CONVENTIONAL METHO		एक्सपोजर और संबोधित स्वास्थ्य आपूर्ति, बोतलबंद पानी, निजी खिस प्रतिशत), जोखिमों का आकलन+। एल्सेवियर ऑस्मोसिस पानी और वर्षा जल जैसे प्रतिशत)	बोतलबंद पानी (37.5 का खतरा भी शामिल है, जो क्षेत्र की करने के उद्देश्य से उपचारात्मक उपायों और निजी रिवर्स ऑस्पोसिस समग्र भलाई पर प्रभाव डाल रहा है। को लाग करना महत्वपूर्ण है। प्रिसिपल	
				PHYSICS LABORATORIES	NUMBER REPORTED IN THE REPORT OF AN ADDRESS OF A DECK OFFICE ADDRESS OFFICE ADDRESS ADDRESS OFFICE ADDRESS ADDRESS OFFICE ADDRESS A	द्वारा हाल ही में प्रतिष्ठित पत्रिका विभिन्न स्त्रोत शामिल थे। सबसे पानी (2: 'फ्रिंजक्स एंड केमिस्ट्री ऑफद अर्थ' चौंकाने वाली बात यह है कि परीक्षण विश्व स्वा	5 प्रतिशत) शामिल है जो जिष्कर्षों से पता चलता है कि आरओ हों राजीव शर्मा ने बठिंडा शहर के स्थ्य संगठन और भारतीय प्लांट भुजल में फ्लोराइड की मात्रा को जिवासियों के लिए तत्काल चिंताओं पर	
Min	or Research Projects			K. S. Mann ^{1,*} , Garima ² , Sarthak ²		स्त्रोतों में छिपे फ्लोगइड के ऊंचे स्तर अनुपात, जिसमें भुजल (78.4 के लिए	रो डारा अनुशोंसत फ्लोराइड कम कर देता है, लेकिन निस्पंदन के उनके शोध के लिए डॉ दुग्गल और 1.5 मिलीग्राम/लीटर के बाद भी, फ्लोराइड का स्तर उनकी टीम की सराहन की। उन्होंने	
PHYS	SICS DEPARTMENT			 Faculty at the Department of Physics, D.A.V. College, Bathi 2. Student of B.Sc. (SemVI), D.A.V. College, Bathinda, 		भार (पदाव्याप्रभाग गण्कन लाभन आए ह) प्रांतरात), नगरपालिक) (रवस अनुशासत यह अच्ययन डॉ विकास दुग्गल जो ऑस्मोसिस जल (72.1 प्रतिशत प्री- अधिक) डीएवी कॉलिज में भौतिक विज्ञान मॉनसन, 27.0 प्रोप्ट-प्रॉनम्प्रन) प्रयाप्रका	दिशानिर्देश मुल्य से कहीं डव्व्यूएचओ दिशानिर्देश मूल्य से ऊपर उल्लेख किया कि यह शोध समुदाय को है। निष्कर्षों से संभावित रह रहा है, जिससे यह उपभोग के लिए पीने के पानी के विभिन्न स्त्रोतों में खतरों का पता चलता है, अन्पपक्त हो जाता है। अध्ययन दर्शाता अन्यधिक फ्लोराइड के खतरों बारे में	
S.	Project Title	Supervisor	Name of UG Students	Abstract	anu d a (apara)	विभाग में सहायक प्रोपेसर है और सार्वजनिक जल आपूर्ति (14.3 जिसमें क	खतरों का पता चलता है, अनुपयुक्त हो जाता है। अध्ययन दशांता अत्यधिक फ्लोराइड के खतरों बारे में काल और दंत फ्लोरोसिस है कि भूजल, नगरपालिका रिवर्स शिक्षित करने में मदद करेगा। • • •	
No			Involved	This work presents an extended indirect method to estimate the o	apacitance of an arbitrary			
1	Assessment of fluoride exposure and associated health risks from different sources of drinking water to various age	Dr. Vikas Duggal	Tanisha Goyal, Ramandeep Kaur, Jashandeep Kaur,	capacitor by recording its charging and discharging time with the he	p of a neon-lamp (NL) and	Physics and Chem	nistry of the Earth 132 (2023) 103472	
	groups in Bathinda City, Punjab, India (March to		Garima Bajaj	digital storage oscilloscope (DSO). The conventional Flashing-Quen used to train undergraduate (UG) physics students to estimate the			Ists available at ScienceDirect Chemistry of the Earth	
	December, 2022) (Beneficiaries: 04)			capacitor by measuring time durations for a fixed number of light fla.		A. Salar	age: www.elsevier.com/locate/pce	
2	(RESERACH PAPER PUBLISHED) Capacitance measurements by digital oscilloscope: An	Dr. K.S. Mann	Sarthak Bansal,	to charging and discharging of the capacitor network. These flashes	re counted manually, and if	Accomment of fluent to	especiated health size from different	
_	extension of the conventional method practiced in UG		Garima	the capacitance of the unknown capacitor lies in the micro-farad (μF can be estimated. Suppose that the capacitance of the unknown capac	The control of the co	Assessment of fluoride exposure and a sources of drinking water to various a Punjab, India	associated health risks from different age groups in Bathinda City,	1 Marines
	physics laboratories. (Beneficiaries: 02)			it cannot be assessed because of the persistence of the vision of the hu		Vikas Duggal [°] , Tanisha Goyal, Ramandeep Kaur	, Jashandeep Kaur, Garima Bajaj	
3	RESERACH PAPER PUBLISHED)Water Level Indicator(Beneficiaries: 02)	Dr. Gurpreet Singh	B.Sc.I: Vanita, Amandeep	impossible to count the light pulses manually. Thus, the capacitance	neasurement range of MFD	Department of Physics, DAV College, Bashinda, Punjab, 151001, India ARTICLEINFO ABSTRACT		
5		Dr. K.S. Mann	Kaur, Sarita Oli, Akanksha	is limited. Replacement of the human eye with a digital storag conventional experimental setup extends the capacitance measurement		Keyword: Drinking water sources Fluoride contamination The presence of ele residents, Previous sources, The original	vated fluoride levels in Bathinda City, Punjab, India, has been a major health concern for studies have primarily focused on groundwater but have neglected other drinking water y aims of this investigation are to analyze fluoride levels in various drinking water sources in	
4		Ms. Harpreet Kaur Brar	Kumari B.Sc.II: Garima, Sarthak	This minor modification increases the accuracy of the capacitance me		Non-carcinogenic risks Bathinda City, estab	y amis of the investigation are to analyze inductive levels in various drinking while sources in lish their relationship with physicochemical parameters, and appraise the non-carcinogenic ciated with fluoride exposure for various age categories. A total of 296 water samples were groundwater (GW), surface water (SW), public water supply (PWS), hottled water (BW), osis water (PROW), municipal reverse osmosis water (MROW) (pre-and post-monsoon), and	
5		Dr. Vikas Duggal	Bansal, Arshdeep,	to the PFD. The higher persistence of the DSO compared to the higher	man eye appears to be the	rativate (Perine Onti- rativater (RW). Fi struments) employin were as follows: GW	oas where 0°ROW, mininecpair reverse onnoses wher (subOW) (pre-and posemonosoh, and uoride levels were determined using a photometer (model: H197739; make: Hanna In- ng the SPADNS colorimetric procedure. The mean fluoride levels in different water sources (3.77 mg L ⁻¹), SW (0.76 mg L ⁻¹), PWS (1 mg L ⁻¹), BW (1.4 mg L ⁻³), PROW (0.64 mg L ⁻¹), on) (1.62 mg L ⁻¹), MROW (post-monsoon) (1.29 mg L ⁻¹), and RW (0.63 mg L ⁻¹). A signif-	P P P
6		Technical Support by:	B.Sc.III: Diksha, Rupali,	reason for the improvement in the capacitance measurement.		Publication with Students	CW (78 A63 DWS /14 203 BW (27 563 DDOW (2555) and MDOW (72 116 in me-moneton	
		Mr Sukhwinder Singh	Jashanpreet Kaur, Kulveer Kaur	Publication with Students in Jo	ournal: IAPT	Chemistry of the Earth (Impact Factor: 3.7), Publ		Minor Research Projects: Mini Amplifier circuit using
								LM386 for phones, Mosquito Repellent,. Etc.

Impacts of the DBT Support:

