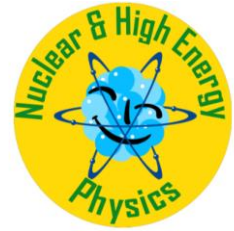




**Indo-European Seminar
on
Nuclear & High Energy Physics**



**7th Feb, 2019
Dr. B. R. Ambedkar Auditorium
City Campus, Mansa Road, Bathinda**

Organized by
**Department of Physical Sciences
Central University of Punjab, Bathinda-151001**



Seminar Schedule

Time	Programme
10:00 a.m. -10:30 a.m.	Registration
10:30 a.m. - 10:40 a.m.	Inauguration
10:40 a.m. - 11:00 a.m.	Tea
<i>Chairperson: Dr. A. L. Sharma</i>	
11:00 a.m. - 11:40 a.m.	“Plasma Wakefield Accelerator” by Dr. S K Mahapatra, CUP, Bathinda
11:40 a.m. - 12:20 p.m.	“Natural Radiations, Exposure & Health Effects” by Prof, S. Kansal, MRSPTU, Bathinda
12:20 p.m. - 1:20 p.m.	Poster Session
1:20 p.m. - 2:20 p.m.	Lunch
<i>Chairperson: Dr. A. L. Sharma</i>	
2:20 p.m. - 3:05 p.m.	“GSI accelerator: from the Early Universe to Cancer Therapy” by Prof. Yvonne Leifels, GSI, Germany
3:05 p.m. - 3:50 p.m.	“The nuclear equation of state: what can we learn from clashing heavy ions on each other” by Prof. Christoph Hartnack, University of Nantes, Nantes France
3:50 p.m. - 4:15 p.m.	Tea
<i>Chairperson: Dr. Ashok Kumar</i>	
4:15 p.m. - 5:00 p.m.	“How atomic nuclei disintegrate: Patterns of instability and catastrophic processes" by Prof. Paolo Napolitani, University of Paris-Saclay, France
5:00 p.m. - 5:15 p.m.	Concluding remarks by DAA
5:15 p.m. - 5:25 p.m.	Vote of Thanks by Dr. Kamlesh Yadav
5:25 p.m. - 5:30 p.m.	National Anthem

Overview of the Seminar

The Indo-European seminar on Nuclear & High Energy Physics was held on 7th February, 2019 at the Dr. B. R. Ambedkar auditorium, Central University of Punjab, Bathinda. The announcement of the seminar was circulated to various colleges and universities in Punjab. The press release for the seminar was covered in the newspaper like Bathinda Bhaskar, E-paper (paper cuttings are shown below).

Students from various departments of this university and other colleges/universities attended the seminar.

The honourable dignitary present in the inaugural session was Prof. R. K. Kohli, Hon'ble Vice-Chancellor, Central University of Punjab, Bathinda, Prof S. Kansal, Head, Department of Physics, MRSPTU, Bathinda and Dr. Gauree Shankar, Head, Department of Mathematics and Statistics, Central University of Punjab, Bathinda. The registration for the seminar started at 10:00 AM and the inaugural session started at 10:30 A.M with university Anthem, which was presented by master students of the department.

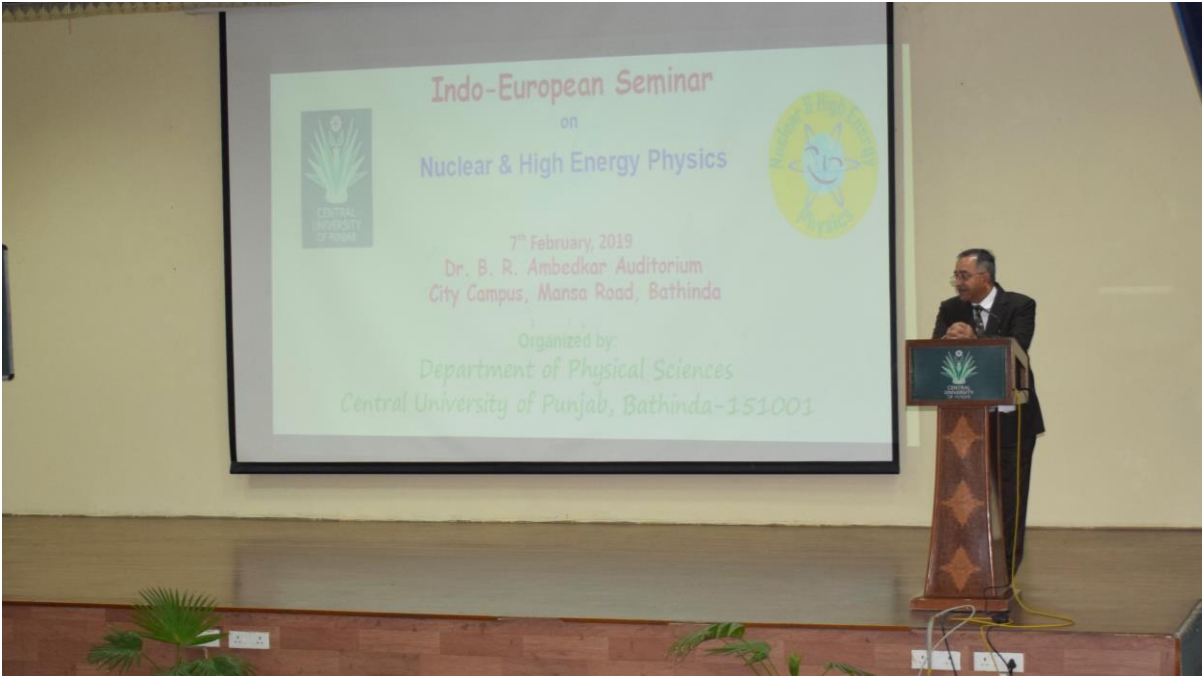


Beginning of the inaugural session
(Dr. Ekta Rani)



University Anthem presented by students of
Department of Physical Sciences

The seminar was inaugurated by Prof. R. K. Kohli, Hon'ble Vice-Chancellor, Central University of Punjab, Bathinda. Prof. R. K. Kohli, gave an inspirational message to the participants. He encouraged the department and students to create innovative ideas. He also appreciated the department for making this seminar possible in a very short duration.



Inauguration of the seminar by Prof. R. K. Kohli, Vice-Chancellor, CUPB

Dr. S. K. Mahapatra, Head, Department of Physical Sciences gave welcome address to honourable dignitaries, keynote speakers delegates, research scholars and students present in the event. He mentioned the achievements and progress of the department.

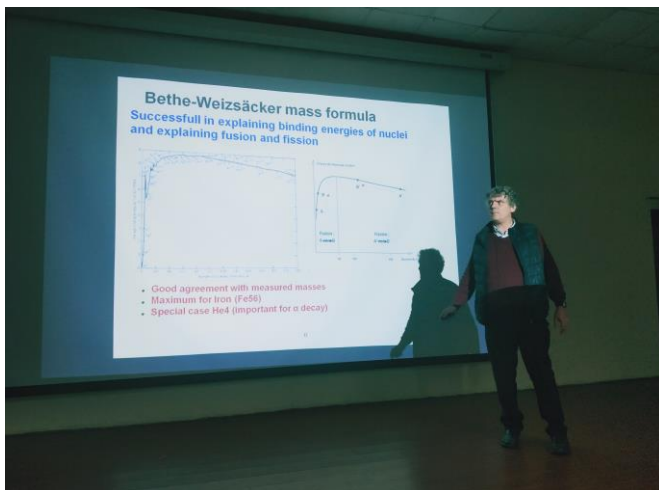


Welcome address by Dr. S. K. Mahapatra, HoD

We had invited speakers from eminent universities of India along with various foreign universities and research centers. Dr. S. K. Mahapatra (Central university of Punjab, Punjab) talked about plasma wakefield accelerator, it's advantages over other accelerators and bubble regime of plasma wakefield accelerator. Prof. S. Kansal (Maharaja Ranjit Singh Punjab Technical University, Punjab) talked about radiations that exist in nature, exposure of living beings to these radiations and it's correlation with deadly diseases like lung cancer, liver cancer, leukaemia, bone cancer, cancer of prostate, neurological disorders etc. Prof. C. Hartnack (University of Nantes, France) discussed about the nuclear equation of state and collision of heavy ions and corroboration of experimental studies with theoretical model in an attempt to understand the nuclear matter under extreme condition. Prof. P. Napolitani (University of Paris-Saclay, France) talked about disintegration of atomic nuclei, discussing various possibilities such as different types of instabilities acting on the surface or volume and catastrophic processes. Prof. Y. Leifels (GSI Helmholtz Centre for Heavy Ion Research, Germany) gave a brief introduction about GSI accelerator, located in south west Germany. She discussed about the invention of super heavy elements and latest researches on treating tumors with energetic heavy ions. All the talks were quite interesting and insightful for students as well as for researchers.



Dignitaries, keynote speakers and organizing committee



Dr. S. K. Mahapatra (top-left), Prof. S. Kansal (top-right), Prof. C. Hartnack (middle-left), Prof. P. Napolitani (middle-right) and Prof. Y. Leifels (bottom-left)



The invited speakers were honored with mementos and felicitated by the faculty of Department of Physical Sciences.

In the concluding session Prof. P. Ramarao, Dean Academic Affairs, Central University of Punjab talked about the seminar, achievements of Department of Physical Sciences and Central University of Punjab.



Prof. P. Ramarao concluding the seminar

Dr. Kamlesh Yadav, Assistant Professor, Department of Physical Sciences presented the vote of thanks to honourable guests, organizing committee and students for their valuable contribution in organizing the event. The successful event ended at 5:30 PM with the National Anthem.



Dr. Kamlesh Yadav presenting vote of thanks

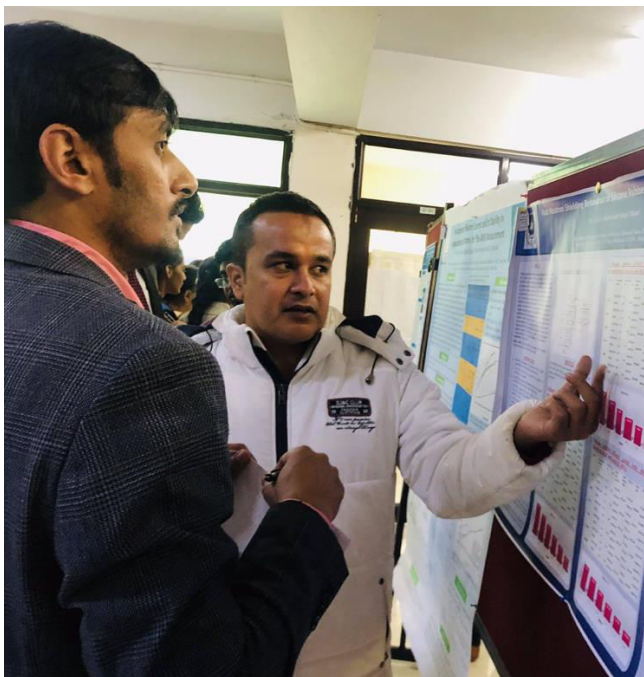
The entire schedule of the seminar was divided into various lectures and poster session. In total, 224 students/faculty members from CUPB and various other colleges and universities were registered for the seminar.

The seminar was an effort to acquaint the young talents about different aspects of research on nuclear and high energy physics to nurture and attract them to pursue career in the corresponding research areas as well as to make a step towards the collaboration with the various Universities outside the India



Students/Faculty members attending the seminar

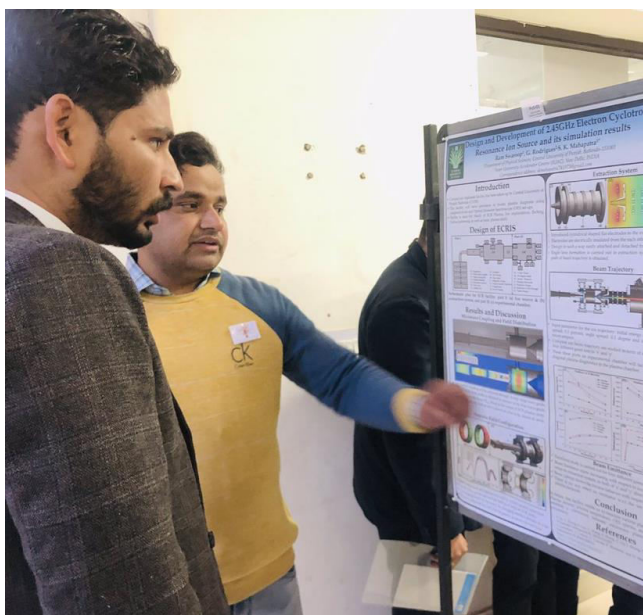
Out of 224 participants, 23 students/faculty members presented posters.



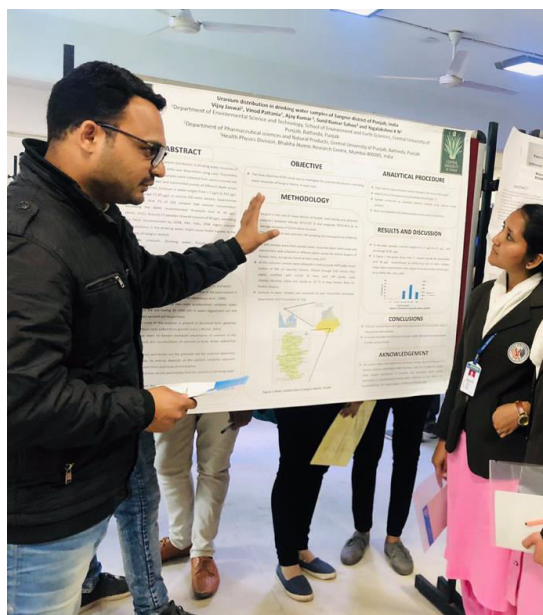
Dr. A. Kumar (Judge for poster session)



Prof. S. Kansal (Judge for poster session)

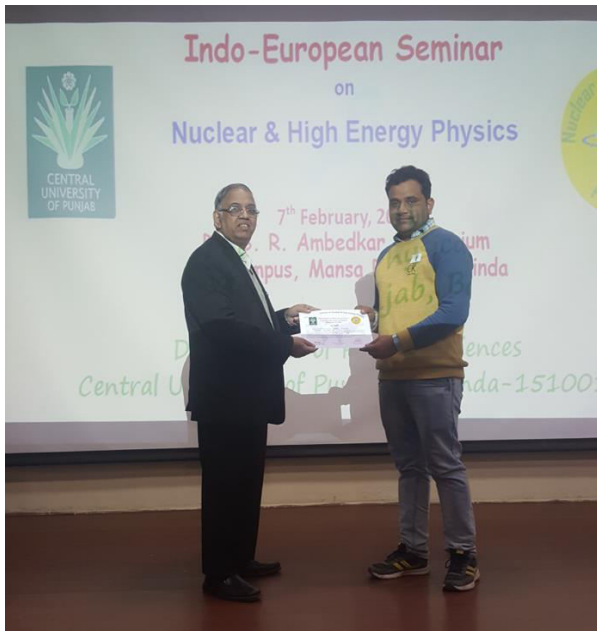
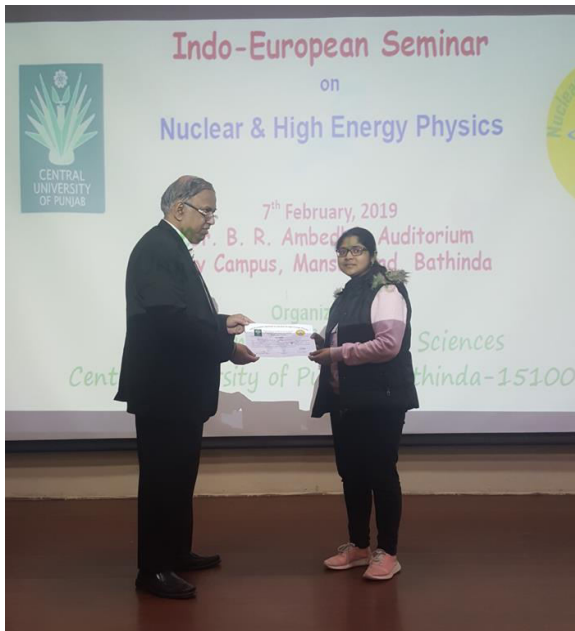


Dr. J. Singh (Judge for poster session)



Participant presenting poster to fellow students

Two students were selected for the best poster award and they were awarded with certificate by Prof. P. Ramarao.



Prof. P. Ramarao awarding best poster certificate to Ms. Supriya Rani and Mr. Ram Sawroop



Poster presentation and discussion



न में
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से फाइनल इयर के नौकरी के इच्छुक 75 विद्यार्थियों का चयन किया गया है तथा इनके लिए वर्कशॉप का प्रबंध किया गया। उन्होंने बताया कि ज्यादातर विद्यार्थी तकनीकी तौर पर हुनरबंद होने के बावजूद नौकरी हासिल करने से वंचित रह जाते हैं

समक्ष अपना हुनर सही ढंग से पेश नहीं कर सकते। इस वर्कशॉप का मकसद ऐसे विद्यार्थियों को नौकरी के लिए तैयार करना है। उन्होंने विद्यार्थियों को अपनी मेहनत व लगन से जिंदगी में आगे बढ़ने को प्रेरित किया। वर्कशॉप के पहले दिन

स्किल की वारीकियां बताईं। दूसरे दिन कॉलेज के कंप्यूटर आईटी विभाग की ओर से विद्यार्थियों को कंप्यूटर विषय से संबंधित बेसिक जानकारी दी ताकि विद्यार्थी इस तकनीक से जुड़कर अपडेट हो सकें। कॉलेज की ओर से गठित

जर्मनी, फ्रांस के इंस्टीट्यूटों के साथ संयुक्त खोज करें भारतीय शोधकर्ता : प्रो. कोहली

सीयूपी में हाई एनर्जी फिजिक्स पर भारत-यूरोपीय वर्कशॉप आयोजित

भास्कर संवाददाता|बठिंडा

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यहां पंजाब केंद्रीय विश्वविद्यालय (सीयूपी) के फिजिक्स विभाग ने परमाणु और हाई एनर्जी फिजिक्स पर भारत-यूरोपीय वर्कशॉप का आयोजन किया। इसका उद्देश्य परमाणु और हाई एनर्जी फिजिक्स के प्रति युवाओं को जानकारी प्रदान करना था। वर्कशॉप में भारत, फ्रांस और जर्मनी के ख्यात विज्ञानी शामिल हुए।

सीयूपी में फिजिक्स विभाग के प्रमुख डॉ. एस महापात्र ने मेडिकल साइंस, फरिनिक्स साइंस, स्पेस टेक्नोलॉजी आदि में मशीन के जरिये प्रयोगों की व्याख्या की। अपने अध्यक्षीय भाषण में विश्वविद्यालय के कुलपति प्रो. आरके कोहली ने परमाणु और



हाई एनर्जी फिजिक्स के क्षेत्र में ऐसी खोजों की जरूरत पर जोर दिया, जो हमारे दैनिक जीवन में महत्वपूर्ण भूमिका निभा सके। उन्होंने भारतीय शोधकर्ताओं को जर्मनी और फ्रांस के रिसर्च इंस्टीट्यूटों के साथ संयुक्त खोज करने के लिए प्रोत्साहित किया।

जीएसआई जर्मनी के प्रो. यवोन लिफेल्स ने सुपर हैवी एलीमेंट्स पर एक प्रस्तुति दी और दक्षिण पश्चिमी जर्मनी में स्थित

जीएसआई हेल्महोल्ट्ज सेंटर में समर-स्टूडेंट प्रोग्राम के बारे में बताया। फ्रांस की यूनिवर्सिटी ऑफ नैनटस के प्रो. क्रिस्टोफ हार्टनेक ने परमाणु समीकरण, यूनिवर्सिटी ऑफ पेरिस-सैकेले के प्रो. पाओलो नेपोलिटानी ने परमाणु टकराव और एमआरएमपीटीयू बठिंडा के प्रो. संदीप कंसल ने प्राकृतिक विकिरणों (रेडिएशन) के कारण पैदा प्राणियों पर रेडिएशन के सकारात्मक और नकारात्मक प्रभावों पर बात की।



जागरण सवाददाता, बठिंडा : माइ ब्रम कांड के आरोपितों को फंड़ने की मांग को लेकर अन्न शिरोमणि अकाली दल अमृतसर ने संघर्ष की चेतावनी दी है। इस संबंध में बठिंडा प्रेस क्लब में की गई प्रेसवार्ता के दौरान महासचिव गुरसेवक सिंह जयहरके ने कहा कि ब्रम कांड की घटना में 5 बच्चों सहित कुल सात व्यक्तियों की जान चली गई थी और 25 अन्य व्यक्ति घायल भी हुए थे। इतनी बड़ी घटना के आरोपितों को नामजद तो कर दिया गया, मगर साजिश रचने वालों को अभी तक गिरफ्तार नहीं किया गया।

शिरोमणि अकाली दल अमृतसर ने माइ ब्रम कांड के आरोपितों को फंड़ने के लिए आवाज की तुलंद

उन्होंने कहा कि पीड़ित परिवार मुआयजे को भटक रहे हैं। अगर सरकार ने 9 मार्च तक नामजद आरोपितों को गिरफ्तार नहीं किया तो पार्टी बरगाड़ी मोर्चे की तर्ज पर ही अन्य समान विचारधारा की पार्टियों को साथ लेकर ब्रमकांड वाले स्थान पर मौड़ में ही पक्का घरना शुरू करेगी।

सरकार का तरफ से फूड प्रांसास क्षेत्र निवेश करने के लिए दी जा रही सुविधा के बारे जानकारी दे गई।

सिन्धु ने बताया कि लाडोबल में फूड पार्क में अंतरराष्ट्रीय स्तर के निवेश गोदरेज- टइसन फूड्स, इस्कान आला- फूड्स और मीट मास्टर ने निवेश कर अपने प्रोजेक्ट तैयार कर लिए हैं। अ निवेशकों की तरफ से औद्योगिक प्लांटों खरीदो-फरोख्त करके जरूरी कार्रवाई की जा रही है। उन्होंने निवेशकों से आग्रह किया कि वे कलस्टर बनाकर इस क्षेत्र निवेश करें।

परमाणु व उच्च भौतिकी ऊर्जा पर संगोष्ठी

जागरण सवाददाता, बठिंडा : पंजाब केंद्रीय विश्वविद्यालय के भौतिक विज्ञान विभाग ने परमाणु व उच्च ऊर्जा भौतिकी पर एक भारत यूरोपीय संगोष्ठी का आयोजन किया। इस संगोष्ठी का उद्देश्य परमाणु व उच्च ऊर्जा भौतिकी के प्रति युवाओं का पोषण करना था। इस कारंशाला में विभिन्न संस्थानों के प्रतिभागियों ने भाग लिया। मुख्य वक्ता में भारत, फ्रांस और जर्मनी के प्रख्यात व्यक्ति शामिल थे। भौतिक विज्ञान विभाग के प्रमुख डॉ. एस महपात्र ने दर्शकों का स्वागत किया। संगोष्ठी का विषय पेश किया और विभिन्न क्षेत्रों जैसे चिकित्सा विज्ञान, फॉरेंसिक विज्ञान, अंतरिक्ष प्रौद्योगिकी की व्याख्या की।

अध्यक्षीय भाषण में कुलपति प्रो. आरके कोहली ने परमाणु और उच्च ऊर्जा भौतिकी के क्षेत्र में अनुसंधान की आवश्यकता पर जोर दिया। ताकि



सेटल युनिवर्सिटी में करवाए गए कार्यक्रम के दौरान मंजूद दिखायी।

एक हमारे दिन-प्रतिदिन के जीवन में महत्वपूर्ण भूमिका निभा सके। उन्होंने भारतीय शोधकर्ताओं को जर्मनी और फ्रांस के अनुसंधान संस्थानों के साथ संयुक्त सहयोगी अनुसंधान करने के लिए भी प्रोत्साहित किया है। जीएसआई जर्मनी के प्रो यवोन लिफ्लेस ने दक्षिण पश्चिम जर्मनी में स्थित जीएसआई त्वरक के बारे में एक संक्षिप्त परिचय दिया। उसने सुपर हैवी एलिमेंट्स पर एक प्रस्तुति दी और ऊर्जावान भारी आयनों

के साथ ट्यूमर के इलाज पर नवीनतम शोध पर बात की। फ्रांस की युनिवर्सिटी ऑफ नैनटेस के प्रो फ्रिस्टोफ हार्टेने ने परमाणु समीकरण के विचार को थ डायनेमिक अवधारणा के रूप में प्रस्तुत किया। फ्रांस की युनिवर्सिटी ऑफ पैरिस सैकले के प्रो पाओलो नेपोलियनी डिसिपेटिय परमाणु टकराव के बारे बात की। उन्होंने सिस्टम के आयतन व सतह पर विभिन्न प्रकार की अस्थिरता पर बात की।

डेरा बाबा हीरा सिंह को जेनरेटर भेंट किया

संस, रामा मंडी : गांव जजला स्थित डेरा बाबा हीरा सिंह को गुरु गोबिंद सिंह रिफाइनरी फुल्लौखारी के प्रबंधकों की ओर से जेनरेटर भेंट किया गया।

इस बारे जानकारी देते हुए डेरा बाबा हीरा सिंह के गद्दीनशीन संत ज्ञान दास ने कहा कि रिफाइनरी के नजदीकी क्षेत्र में रिफाइनरी प्रबंधकों द्वारा बहुत सारे सामाजिक कार्य किए जा रहे हैं जो कि बहुत ही सराहनीय हैं।

चाइनीज डोर के खिलाफ चल

सवाद सहयोगी, बठिंडा : लाइनपार इलाके में चाइनीज डोर के खिलाफ समाजसेवी रक्तदानी ब्रौरबल बांसल की ओर से चलाए गए अभियान से प्रभावित होकर दो बच्चों ने चाइना डोर का बावकाट करते हुए घर में पड़े दो चाइना डोर के गद्दू लाकर समाजसेवी ब्रौरबल बांसल को दिए और कहा अंकल इसे जला दो, आज के बाद वह चाइनीज डोर का इस्तेमाल नहीं करेंगे। ब्रौरबल बांसल ने बच्चों की



बठिंडा के प्रताप नगर में समाजसेवी ब्रौरबल बांसल व अन्य बच्चों की ओर से दिए गए चाइनीज डोर के गद्दू जलाते हुए।

प्रशंसा करते हुए उनके सामने ही चाइनीज डोर के गद्दू की जला दिया।

Details of poster presentations

Poster No	Name of University/College	Name	Designation	Title
POS-01	Central University of Punjab, Bathinda	Ram Sawroop	Ph.D Scholar	Design and Simulation of 2.45GHz Microwave Ion Source Implanter and Plasma Diagnosis Facility
POS-02	Maharaja Ranjit Singh Punjab Technical University, Bathinda	Supriya Rani	Ph.D Scholar	Estimation of Uranium Concentration in Water samples for Radiological risk assessment using LED Fluorimeter
POS-03	Maharaja Ranjit Singh Punjab Technical University, Bathinda	Amit Kumar Single	Ph.D Scholar	Measurement of Radon Concentration in water samples for Dose Assessment using Smart RnDuo
POS-04	Maharaja Ranjit Singh Punjab Technical University, Bathinda	Shekhar Dwivedi	Ph.D Scholar	Dosimetric Assessment of Small Radiation Fields in 6 and 10 MV FF and FFF Photon Beams for Therapeutic Use
POS-05	Govt. Rajindra College, Bathinda	Prabhjot Singh	Faculty	U238, Th232 and K40 concentration and radon exhalation study in sub soils of Tosham region Haryana, India
POS-06	Central University of Punjab, Bathinda	Amrutha K	Ph.D Scholar	Application of Accelerator Mass Spectrometry in Geosciences: From Indian Perspective
POS-07	Guru Nanak Dev College for Girls, Sri Muktsar Sahib	Gurjot Singh	Faculty	Interdisciplinary applications of X-ray fluorescence technique
POS-08	Central University of Punjab, Bathinda	Muzahir Iqbal	Ph.D Scholar	Beam Induced Nucleation Growth of Ru in rGo Matrix
POS-09	DAV College, Bathinda	Vikas Duggal	Faculty	Age-Dependent Radiation Dose Due To Intake Of Radon In Drinking Water From Northern Haryana, India
POS-10	Guru-Kashi University	Amit Joshi	Ph.D Scholar	Fast Neutron Shielding Behaviour of Silicone Rubber Doped With Boric Acid
POS-11	Central University of Punjab, Bathinda	Haldhar Kumar	Ph.D Scholar	Enhancement of Beam Current and its Stability by Apposite Metal Matrix for ^{10}Be AMS Measurement
POS-12	Baba Farid College, Bathinda	Sudhir Mittal	Faculty	Estimation of Annual Effective Dose Due to Indoor Radon Level

POS-13	Central University of Punjab, Bathinda	Vijay Jaswal	Ph.D Scholar	Uranium distribution in drinking water samples of Sangrur district of Punjab, India
POS-14	Central University of Punjab, Bathinda	Vashu Kamboj	MSc Student	Investigation of the Structural, Electrical and Voltage Stability Properties of the Blended Solid Polymer Electrolyte for Sodium Ion Battery
POS-15	Central University of Punjab, Bathinda	Pritam	Ph.D Scholar	Conductivity and Dielectric Properties Investigation of Intercalated Polymer Nanocomposites
POS-16	Central University of Punjab, Bathinda	Mohit Madaan	MSc Student	Effect of Nanofiller on the Electrical Conductivity and Dielectric Properties of Polymer Nanocomposite Films
POS-17	Baba Farid College, Bathinda	Deeksha	Faculty	Structural, optical and enhanced LPG gas sensing properties of Cr doped SnO ₂ nanostructure
POS-18	Central University of Punjab, Bathinda	Anu Sharma	Ph.D Scholar	Structural and Optical Properties of Cd-Doped Pyrochlore Bismuth Titanate Nanoparticles
POS-19	Central University of Punjab, Bathinda	Jaspreet Singh	Ph.D Scholar	Energetics and Electronic Structure of Novel Hybrid Dumbbell Monolayers
POS-20	Baba Farid College, Bathinda	Harbans Lal Jasuja	Faculty	Electrical conductivity in Thin Bismuth Film deposited at Liquid Nitrogen Temperature
POS-21	Baba Farid College, Bathinda	Sahil Gupta	Faculty	Security of communicating data using Video Steganography
POS-22	Central University of Punjab, Bathinda	Jaya Gupta	MSc Student	Effects of adding MWCNT on structural, morphological, optical and dielectric properties of two phase (LDPE) _{100-X} (Cr ₂ O ₃) _X nanocomposite with varying concentration
POS-23	DAV College, Bathinda	Gurpreet Singh	Faculty	Electron Transport in Plasma

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