



MPGD 2026 - Proposal



M. Naimuddin

University of Delhi

RD51 Meeting

December 07, 2023



Delhi University



- ◆ The University of Delhi was established in 1922. It is one of the Premier educational Institutions in India.
- ◆ The University offer a wide spectrum of undergraduate, postgraduate and doctoral programs.
- ◆ With its 85 colleges, 84 postgraduate departments, over 300,000 students and about 7,000 teachers, the University of Delhi is the largest in India and one among the largest in the world.
- ◆ North Campus of University of Delhi is located in the northern part of Delhi, approximately 35 km from Indira Gandhi International Airport.
- ◆ The Department of Physics and Astrophysics, University of Delhi (DU), is located in the picturesque and historic Main Campus of the University. Spread across four buildings and with over 800 members, it is possibly the largest science department in any Indian university. It came into its existence in the year 1922.





DU HEP Group



- One of the active and large group in the country.
- 6 experimental faculty, 3 theorists (who work quite closely with experimentalists) and dozens of students with postdocs, engineers and technicians.
- Currently involved in CMS and Fermilab based neutrino experiments.
- On hardware side, mostly involved in gaseous detector R&D, Silicon based detectors, scintillator detectors and related electronics.



Delhi University HEP Group



- ◆ Delhi University is a member of CMS Collaboration since 1994.
- ◆ Currently member of Fermilab based neutrino experiments.
- ◆ Have participated in the construction and delivery of CMS Preshower detectors, and CMS GEM detectors.
- ◆ Funded by Department of Science & Technology (DST) as part of DAE-DST India CMS grants. Maximum funding amongst all the HEP groups in India.
- ◆ Currently involved in the CMS GEM upgrade and Tracker upgrade.
- ◆ Previously collaborated in the D0 experiment at Fermilab, Tevatron.
- ◆ Organised several workshops/schools and are/were part of OC of several national and international events.
 - SERC School on Experimental HEP with 50 Ph.D. students.
 - DAE Symposium on High Energy Physics in December 2016 – Expected participants is 400.
 - Several other workshops/meetings with participants ranging from 20-50.



GEM Activities



- ◆ Involved in the CMS-GEM Upgrade project and gaseous detector R&D.
- ◆ Playing major role in the CMS GEM Upgrade.
- ◆ 4 faculty members, 2 engineers and several students involved.
- ◆ Extensive expertise and infrastructure already exists in DU, supported by DST grants, for the gas detector research.
- ◆ Quite a few publications every year from group efforts.
- ◆ Assembly and QC of CMS GEM detectors at DU.
- ◆ Led the development of GEM foils in Indian industry.
- ◆ Also interested in applications of GEM detectors outside HEP.



People



◆ Four faculty members are involved in the GEM detector work.

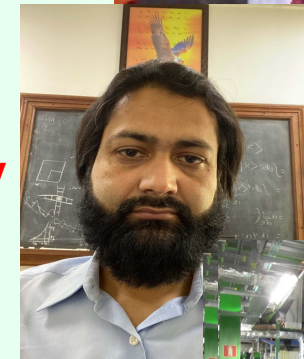
◆ Prof. Brajesh C. Choudhary

Chair, CMS-GEM IB; India-CMS representative for 4 years; members of several committees at CMS.



◆ Prof. M. Naimuddin

Deputy Project Manager, CMS-GEM Project; Delhi University group leader; member of several CMS committees.



◆ Prof. Ashok Kumar

Technical Coordinator, CMS-GEM Project, responsible for installation of GE2/1 detectors.



◆ Prof. Arun Kumar

New addition to the group, has a long experience in CMS experiment.



Lab Facilities at DU

Gas Mixing Unit 6 (upgraded to 12) Channel



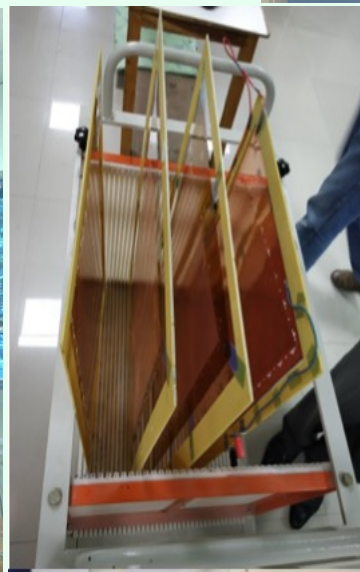
Class 100 Clean Room



Power Supply and NIM/VME DAQ



X-Ray gun shielding & setup





Delhi - City

- ◆ **Delhi is the capital city of India. It has been Capital of India under rules of different dynasties and regimes.**
- ◆ **Delhi is also known for its Historical Monuments and rich multicultural society. Being the capital of India for several centuries, many historical monuments such as Red Fort, Old Fort, Feroz Shah Kotla, Qutub Minar, Jama Masjid, Humayun's Tomb, India Gate, Jantar Mantar, etc. could be seen in and around Delhi.**
- ◆ **The city is just not about historical monuments, it is also a blend of different culture & religions. People with different religious background such as Hindu, Muslim, Christian, Buddhist, Jain, Sikh etc. live happily together in Delhi.**
- ◆ **Today's Delhi comprises Old Delhi and New Delhi with the old heritage, colorful life and modern lifestyle. It is also the biggest market place in Asia.**
- ◆ **Delhi is also known for its delicious non-vegetarian “Mughalai” dishes.**

Taj Mahal

- ◆ There are many other historical places near Delhi – One of the seven wonders of world “Taj Mahal” is only about 150 KMs from Delhi.

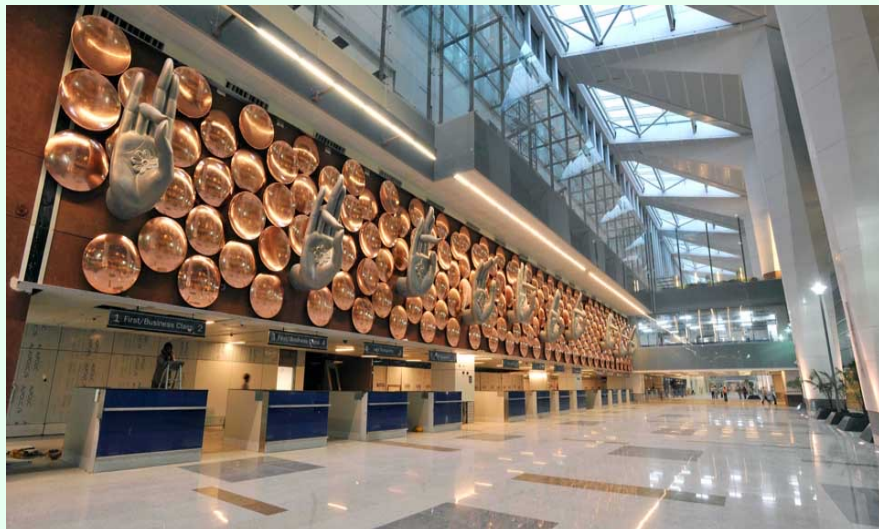




Delhi – Connectivity



- ◆ Delhi is well connected with all the major cities of world. It has India's busiest airport with flight connectivity from all the major airlines of world.
- ◆ Most of major European, American and Asian cities are connected by direct flights on daily basis.
- ◆ All the cities in India are connected very well from Delhi by Air, Railway and buses.
- ◆ Delhi has India's first metro connecting the entire city and important points, including Delhi University.



Delhi – Weather

- ◆ Delhi experiences hot summer, pleasant winter and moderate rains in various parts of the year.
- ◆ Middle Jan – Middle March is a pleasant weather (spring) time. Temperature vary between 12 - 25 degree centigrade. Humidity around 35% and almost no or very little rain. Mid October – Mid December is also a good time weatherwise.



◆ We have conference center equipped with all the latest technology and gadgets.

The lunches and breakfasts will be served in the conference center itself.

The conference center has all the latest setup for audio/video participations from outside.

Plenty of space for posters and exhibitions.





Conference Logistics



- ◆ **There are many good hotels within 2 KM radius of the conference venue. The hotel prices vary from \$40 (3 star) to \$200 (5 star or more).**
- ◆ **We plan to keep registration fee as low as possible, not more than current 300 euros for sure, even less ~200 euros for students.**
- ◆ **Will cover the lunches and breakfasts in the registration fee as well as excursion.**
- ◆ **The conference fee will also include a cultural evening and conference dinner.**
- ◆ **There are many places to see in and around Delhi, all at very reasonable cost, like Taj Mahal, Amritsar (Golden Temple), and Tiger safaris.**
- ◆ **All kinds of cuisines (Ethnic, continental, regional, etc.) available all over Delhi.**

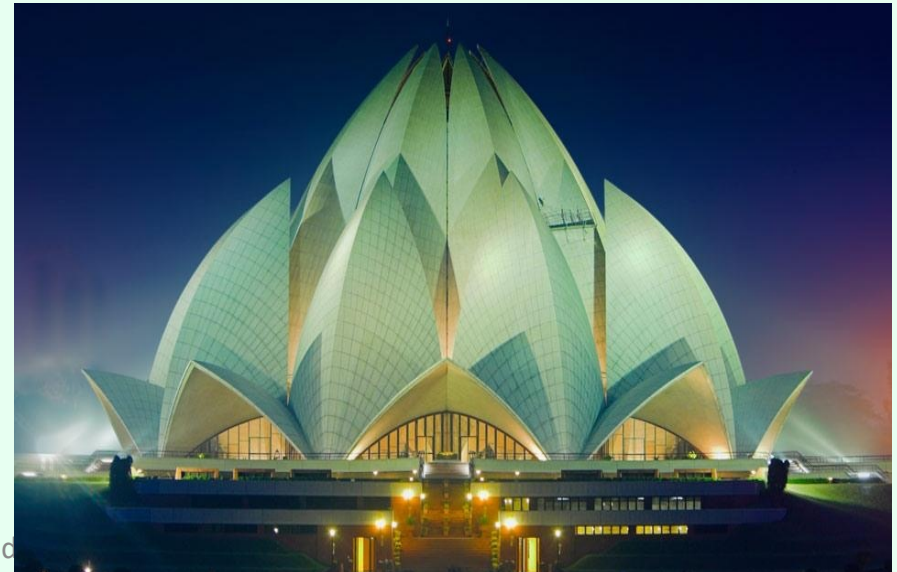


Conclusions



- 1. We are very keen to host the next edition of MPGD conference.**
- 2. We have all the necessary facility and logistics to organise the conference in Delhi, India.**
- 3. India has a very vibrant MPGD community which is continuously expanding.**
- 4. MPGD conference will provide a big boost to the Indian gas detector community.**
- 5. We will make it a memorable event by including visits to historical places like Taj Mahal.**
- 6. Looking forward to the opportunity of welcoming you all at Delhi in 2026.**

Delhi



Nearby Attractions

