



Ram Singh

❖ Field of research:

Space Weather Impacts on the Earths Ionosphere, Coupling of the Solar Driven Prolonged and Transient Processes to the Equatorial and Low Latitude Ionosphere

❖ Name of institute:

Indian Institute of Geomagnetism (IIG) Mumbai

❖ Pursuing degree:

PhD (Doctor of Philosophy)

❖ Completed degree (in descending order):

Master of Science MSc. (Physics)

Bachelor of Science BSc. (Physics, Chemistry and Mathematics)

❖ Publications (in descending order):

1. **Ram Singh**; S. Sripathi; Sreeba Sreekumar; S. Banola; K. Emperumal and P. Tiwari (2015); *Low latitude ionospheric response to super geomagnetic storm on 17 March 2015*, *J. Geophys. Res.*, 120, doi:10.1002/2015A021509
2. Sripathi, S., **Ram Singh**, S. Banola, D. Singh, and S. Sathish (2016), *The response of the equatorial ionosphere to fast stream solar coronal holes during 2008 deep solar minimum over Indian region*, *J. Geophys. Res. Space Physics*, 121, doi:10.1002/2015JA021534
3. L. M. Joshi; S. Sripathi and **Ram Singh**; *Simulation of the low latitude ionospheric response to intense geomagnetic storm of 17 March 2015 using ionosonde derived PRE vertical drifts over Indian region*, *J. Geophys. Res.*, (*****)

❖ **Poster presentations (in descending order):**

1. **Ram Singh**; S. Sripathi; Sreeba Sreekumar; *Low latitude ionospheric response to a super geomagnetic storm of the current solar cycle occurred on 17 March 2015 over Indian region. URSI-RCRS-2015, India*
2. **Ram Singh**; S. Sripathi; Sreeba Sreekumar; *Equatorial and low latitude Ionospheric Response to Some of the Space Weather Events over Indian region. Science of Space Weather (SSW) Goa-2016, India*

❖ **Schools/Workshops Attended (in descending order):**

1. *2nd URSI-Regional Conference on Radio Science (URSI-RCRS-2015), Jawaharlal Nehru University, New Delhi, India from 16-19 November, 2015*
2. *Science for Space Weather Goa, India, January 24 - 29, 2016*

❖ **Purpose of study in the research field:**

The ionosphere is highly variable in space as well as in time. It shows diurnal, seasonal, latitudinal and longitudinal variations. These variations can be short term or long term in the ionosphere. The sources of these variations are believed to be due to solar processes, coupling from lower atmosphere and internal mechanism of ionosphere. But still occurrence or non-occurrence of various high-latitude, mid-latitude and low-latitude ionospheric processes are not well explained theoretically and predictions of such phenomena remain an open challenge. While some progress has been made to understand the lower atmospheric processes impacting the earth's ionosphere, still space weather impact on the ionosphere is not well understood. For example, Halloween and Carrington storm occurred on 28 October 2003 and 13 March 1989, these storms created huge impact on communication, space based systems such as satellites, geomagnetically induced currents (GIC) and astronauts. If such large storm occurs today, it will be catastrophic for our human lives as we all depend mostly on satellite based navigations. So, it is very essential that we study and understand the variabilities caused due to solar driven processes.

Other details:

❖ **Awards & Honour (i.e.NET/SLAT/JEST/GATE/Any equivalent):**

PET (PhD Entrance Test)

❖ **Language Skill**

Hindi, English, other local languages

❖ **Permanent communication address:**

Home No-42, village-Eshanpur Post- Kharikwari District-Bulandshahr (Uttar Pradesh)-202393 India.

❖ **Secondary communication address:**

Indian Institute of Geomagnetism (IIG) plot-5 Sector -18 New Panvel Navi Mumbai-410218 (Maharashtra), India

❖ **Permanent e-mail address:**

ramphysics4@gmail.com

❖ **Secondary e-mail address:**

www.ramsingh3232@gmail.com

❖ **Permanent contact number:**

+917506226074

❖ **Secondary contact number:**

+917409746644

Myself, Ram Singh I am PhD (Research Scholar) Student at Indian Institute of Geomagnetism (IIG) Mumbai India. First, I want to express my sincere appreciation to the organizers for such a wonderful School/workshop. The organization of the CCMC School/workshop was great. I got the opportunity to learn about the CCMC models these are direct related to my research work. They helped me with a different insight, suggested to me which points in my research are interesting from their viewpoint. I learned new things during the lessons of the School/workshop, which give me now better insight. I met many experts that are close to my area of research, got insight into their areas, talked to them, established new contacts. I heard that the problems I deal with are sometimes similar to the problems of others, which is encouraging for me and tells me that my research makes sense. I was happy to be given an opportunity to me. Finally, I want to thank the organizers for selecting for me to this exciting CCMC School/workshop.