

## ANNUAL INDEX

### Subject Index

|   |                     |  |               |
|---|---------------------|--|---------------|
| Aerosol                                     | 203                 | Ferrite substrate                                      | 53            |
| Aerosol mass concentration                  | 147                 | Fine particles   | 95            |
| Aerosol optical depth                       | 95                  | foF2 depletion   | 311           |
| Aerosol optical thickness (AOT)             | 85                  | foF2 variability                                       | 124           |
| Air quality                                 | 203                 | Forbush decrease                                       | 76, 297       |
| Ambient electron heating rate               | 130                 | Frequency switchable metamaterial loaded small antenna | 159           |
| Analysis of variance (ANOVA)                | 301                 |  |               |
| Atmospheric aerosol                         | 85                  | Gaseous pollutants                                     | 203           |
| Atmospheric boundary layer (ABL) height     | 147                 | Geomagnetic activity                                   | 179           |
| Atmospheric heating                         | 320                 | Geomagnetic storm                                      | 76, 253, 311  |
| Atmospheric turbidity                       | 85                  | Global ionospheric maps (GIMs) of TEC                  | 26            |
| Atmospheric water vapour                    | 85                  | GPS radio occultation                                  | 320           |
| Attenuation distribution                    | 211                 | GPS-TEC variation                                      | 21, 26        |
| Autocorrelation function                    | 137                 | Ground heat flux                                       | 37            |
|   |                     |  |               |
| Backscattering coefficient                  | 137                 | High frequency Active Auroral Research Program (HAARP) | 241           |
| Backward wave oscillator                    | 241                 | Human body tissues                                     | 340           |
| Banded sferics                              | 183                 |  |               |
| Black carbon aerosol                        | 147                 | Impedance bandwidth                                    | 166           |
| Bowen ratio                                 | 37                  | Interplanetary coronal mass ejections (ICME)           | 76, 253       |
| Broadband antenna                           | 275                 | Interplanetary magnetic field                          | 179           |
|   |                     | Inter-tropical discontinuity (ITD)                     | 301           |
| Carbon monoxide aerosol                     | 147                 | Ionospheric disturbance                                | 297           |
| Circularly polarized antenna                | 227                 | Ionospheric foF2 increase                              | 297           |
| Circular patch microstrip antenna           | 275                 | Ionospheric irregularities                             | 191           |
| Cloud liquid water                          | 257                 | Ionospheric propagation                                | 191           |
| Cluster mission                             | 241                 | Ionospheric scintillations                             | 191           |
| Coarse particles                            | 95                  | Ionospheric total electron content (TEC)               | 26            |
| Columnar refractivity                       | 301                 | Ionospheric variability                                | 124           |
| Complementary-symmetry antenna              | 166                 | IRI-TEC variation                                      | 21            |
| Complex permittivity                        | 218                 |  |               |
| Convective rain                             | 257                 | Latent heat  | 257           |
| Coronal mass ejection (CME)                 | 7, 11, 76, 121, 179 | Leonid meteor shower                                   | 67            |
| Correlation coefficient                     | 211                 | Lightning  | 183           |
| Correlation length                          | 137                 | Linear array antenna                                   | 53            |
| Cosmic ray                                  | 76, 179             | Lognormal distribution                                 | 330           |
| Cosmic ray decrease                         | 297                 | Low saline water                                       | 267           |
| Crustal pollutants                          | 203                 |  |               |
|   |                     | Magnetic storm   | 183           |
| DEMETER microsatellite                      | 241                 | Man-made whistler mode waves                           | 241           |
| Dielectric constant                         | 153                 | Meteorological parameters                              | 95            |
| Diesel contaminated water                   | 153, 267            | Meteorological variables                               | 45            |
| Diversity gain                              | 211                 | Meteor shower  | 67            |
| Downward surface shortwave radiation (DSSR) | 45                  | Micro rain cells (MRC)                                 | 211           |
| Dust storm                                  | 320                 | Micro scale site diversity (MSD)                       | 211           |
|   |                     | Microstrip antenna                                     | 166, 227, 275 |
| Eddy covariance                             | 37                  | Microstrip patch antenna (MSA)                         | 282           |
| Electrically small antenna (ESA)            | 159                 | Microwave remote sensing                               | 267           |
| Electromagnetic radiation (EMR)             | 340                 | Mobile satellite L-band signal                         | 105           |
| Electron precipitation                      | 241                 | Mobile signal performance                              | 105           |
| ELF/VLF chorus                              | 241                 | Monsoon rainfall                                       | 257           |
| Elliptical patch antenna                    | 227                 | Muon anisotropy  | 76            |
| Emissivity                                  | 218, 267            |  |               |
| Empirical model                             | 330                 | Narrow band sferics                                    | 183           |
| Equatorial gyroresonance                    | 241                 | Natural whistlers                                      | 241           |
| Equatorial ionosphere                       | 124                 | Negative permeability metamaterial                     | 159           |
|   |                     | Nonlinear plasma physics phenomena                     | 241           |

|                                   |                        |  |        |
|-----------------------------------|------------------------|--|--------|
| Ozone aerosol                     | 147                    | Solar radio emission flux                            | 7, 121 |
| Particulate matter (PM)           | 95, 203                | Solar wind plasma                                    | 311    |
| Pitch angle diffusion             | 241                    | Specific absorption rate (SAR)                       | 340    |
| Planar metamaterial               | 159                    | Specular reflection                                  | 183    |
| Pollutant concentration           | 147                    | Spilt ring resonator (SRR)                           | 159    |
| Precipitation water               | 257                    | Stacked notched rectangular microstrip patch antenna | 282    |
| Radio burst type II               | 11                     | Sunspot minimum                                      | 72     |
| Rain drop size distribution (DSD) | 330                    | Sunspot number                                       | 7, 121 |
| Rain induced attenuation          | 330                    | Superthermal electron flux                           | 130    |
| RMS roughness height              | 137                    | Surface energy budget                                | 37     |
| Saline water                      | 153                    | Surface refractivity                                 | 301    |
| Salinity                          | 218                    | Surface roughness                                    | 137    |
| Satellite propagation data        | 105                    | Temperature inversion                                | 320    |
| Scattering coefficient            | 267                    | Total electron content (TEC)                         | 21     |
| Signal-to-noise ratio (SNR)       | 105                    | Triangular patch microstrip antenna                  | 53     |
| Siple (Antarctica)                | 241                    | Triggered VLF emissions                              | 241    |
| Slot antenna                      | 166                    | Tropospheric refractivity                            | 301    |
| Soil moisture                     | 37, 218                | Tunable polarized antenna                            | 53     |
| Solar activity                    | 7, 26, 124, 130        | Van Allen radiation belt electrons                   | 241    |
| Solar cycle size                  | 72                     | Ventilation coefficient                              | 147    |
| Solar EUV photon                  | 130                    | VHF scintillations                                   | 191    |
| Solar flare                       | 11, 179, 183, 253, 297 | Weather forecasting                                  | 45     |
| Solar parameters                  | 72                     | Wide band antenna                                    | 156    |
| Solar radiation                   | 37                     | Wireless local area network (WLAN)                   | 282    |
| Solar radio burst                 | 11                     |  |        |

### Author Index

|                    |                          |                        |          |
|--------------------|--------------------------|------------------------|----------|
| Abidin W A W Z     | 105                      | Masri T                | 105      |
| Adekoya B J        | 311                      | Mishra Madhurima       | 183      |
| Adeloye A B        | 21, 124                  | Moorthy K Krishna      | 95       |
| Adeniyi J O        | 21                       | Mulgi S N              | 166      |
| Adewale A O        | 21                       |                        |          |
| Adeyemi Babatunde  | 301                      | Naidu C V              | 147      |
| Agrawal Anil Kumar | 282                      | Narasimhulu K          | 95       |
| Ahmadian Nima      | 153, 267                 | Narasimhamurthy B      | 85       |
| Akala A O          | 124                      | Nazeer Ahammed Y       | 95       |
| Akintola A N       | 311                      | Neela V S              | 257      |
|                    |                          | Nitendar Kumar         | 53       |
| Babu S Suresh      | 95                       |                        |          |
| Badarinath K V S   | 147, 320                 | Oladipo O A            | 21       |
| Bajpeyi Anubha     | 183                      | Oladosu O R            | 37       |
| Balakrishnaiah G   | 95                       | Othman A K             | 105      |
| Balanarayana C     | 95                       | Oyeyemi E O            | 21       |
| Bhatnagar D        | 227, 275                 |                        |          |
| Bhatnagar S P      | 218                      | Pai B Voon             | 105      |
| Birbal Singh       | 26, 183                  | Pandey Uma             | 183      |
|                    |                          | Pathak P P             | 340      |
| Calla O P N        | 153, 267                 | Pattnaik Shyam S       | 159, 282 |
| Chauhan Vishal     | 26                       | Pourush P K S          | 53       |
|                    |                          | Prakash O              | 11       |
| Dayanandan B       | 191                      |                        |          |
| David T W          | 311                      | Rabiu A B              | 124      |
| Devendra Singh     | 45                       | Raghavendra Kumar K    | 95       |
| Devi S             | 159, 282                 | Rakesh Chandra N       | 67       |
| Dubey Manoj        | 227                      | Rama Gopal K           | 95       |
|                    |                          | Rana V A               | 218      |
| Ebenezer E         | 11                       | Rao P S P              | 203      |
| Emmanuel Israel    | 301                      | Rasheed M              | 257      |
|                    |                          | Reddy B Suresh Kumar   | 95       |
| Fredrick S R       | 257                      | Reddy L S S            | 95       |
|                    |                          | Reddy R R              | 95       |
| Gadani D H         | 218                      | Roy Bijoy              | 211      |
| Ganesh K E         | 85                       | Rycroft Michael J      | 241      |
| Garima             | 275                      |                        |          |
| Gharai Biswadip    | 320                      | Saini J S              | 227, 275 |
| Gowri R            | 330                      | Sameena N M            | 166      |
| Gupta V K          | 137                      | Sandeep Kaur           | 130      |
|                    |                          | Sandeep Kumar          | 340      |
| Hasan Sayeh        | 153, 267                 | Satsangi P Gursumeeran | 203      |
|                    |                          | Saxena Naveen Kumar    | 53       |
| Jaiswal R S        | 257                      | Saxena V K             | 227, 275 |
| Jangid R A         | 137                      | Sakra Pratibha         | 227      |
| Jassal B S         | 330                      | Shanmugaraju A         | 11       |
| Joshi J G          | 159, 282                 | Sharma Abhishek        | 183      |
| Joshi L M          | 275                      | Sharma Neerja          | 320      |
| Jothe Mukesh K     | 179                      | Shekhawat Sumita       | 227      |
|                    |                          | Shukla Ashish K        | 211, 330 |
| Kalaivani P Pappa  | 11                       | Singh O P              | 26       |
| Kane R P           | 7, 72, 76, 121, 253, 297 | Sivaraman M R          | 211      |
| Krishna M V Sunil  | 130                      | Somoye E O             | 124      |
| Kulshrestha A      | 203                      | Srivastava Pankaj K    | 179      |
|                    |                          | Sunmonu L A            | 37       |
| Lohokare M R       | 159                      |                        |          |
|                    |                          | Taneja Ajay            | 203      |
| Mahalakshmi D V    | 147, 320                 |                        |          |

|                       |     |            |     |
|-----------------------|-----|------------|-----|
| Umapathy S            | 11  | Vyas A D   | 218 |
| Umesh T K             | 85  | Vyas B M   | 191 |
| Vidyarthi Anurag      | 330 | Yellaiah G | 67  |
| Vijaya Bhaskara Rao S | 67  | Zaveri L   | 257 |
| Vir Singh             | 130 | Zen H      | 105 |