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| Book Name: | **Design and simulation of GHz antennas** |
| Manuscript Number: | **Ms\_BPR\_3848.1** |
| Title of the Manuscript: | **Symmetric and Asymmetric analysis of Graphene based antenna using kinetic theory of plasma** |
| Type of the Article | **Book chapter** |

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| PART 1: Review Comments | | |
| Compulsory REVISION comments | Reviewer’s comment | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.** | The Graphene nano antenna is analyzed in plasmonic using kinetic theory of plasma with Vlasov equation which has further applications as Biomaterial, Sensors and in Quantum Mechanics. SPP waves are generated due to third order nonlinearity present in Graphene. Kinetic theory of plasma gives solutions to that Fermi level perturbations that causes charge transport in the plasmonic cavity. The change in the Fermi levels is generated by artificially designed symmetric asymmetric structures. The change causes electron and hole transport. Breaking the symmetry in patch antenna also leads to quantum phenomenon. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes** |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | **Yes** |  |
| **Are subsections and structure of the manuscript appropriate?** | **Yes** |  |
| **Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.** | 1. Graphene-based antennas have low radiation efficiency due to high attenuation constants.Justify 2. Kindly check the typo errors in the research paper 3. Mention the efficiency of the proposed system compared with the existing system in abstract |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | **Yes** |  |
| Minor REVISION commentsIs the language/English quality of the article suitable for scholarly communications? | Yes |  |
| Optional/General comments | Nil |  |

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| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s comment *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*** |
| **Are there ethical issues in this manuscript?** | ***(If yes, Kindly please write down the ethical issues here in details)*** |  |

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| **Reviewer Details:** | |
| Name: | **S. Subaselvi** |
| Department, University & Country | **National Engineering College, India** |