PREFACE

From the year 2012, our research group conducted some important research on the fabrication and applications of Fly ash based porous concrete (FPC). This porous concrete prepared from fly ash from NALCO Thermal Power Plant Odisha, India for ground water recharging and pavement application.

Now-a-days, the modernized cities are being covered with air and water proof concrete road and building. The water and air permeability of the common concrete pavement the rain water is not filtered underground. So the environment of city is far from natural. A large amount of rain water ends up falling on impervious surface such as parking lots, drive ways, sidewalks and streets rather than soaking into soil. This creates an imbalance in the natural ecosystem and leads to a host of problems including soil erosion, floods, ground water depletion. A simple solution to avoid these problems to stop construction impervious surface and switch to pervious concrete. So that ground water recharging can be easily done. On the other hand, large amount of fly ash are generated in the world and it can be utilized properly. As the need for power increases, the volume of fly ash would increase.

Both the above issues such as fly ash utilization and ground water recharging are addressed in our work. We have developed a Fly ash based pervious material (FPC) from Class-F fly ash. The special properties of FPC are it can also used ground water recharging, storm water management, control head island effect and control mitigate of surface pollutant and good acoustic property.

We are happy to participate and assist the industries to take the Fly ash based pervious concrete (FPC) technology to the communities in infrastructure applications and pavement application. We passionately believe that our work is a small step towards a broad vision to serve the communities for a better future. For further information, please contact: Prof.(Dr) B.B.Kar,Department of Chemistry, KIIT University, Bhubaneswar,Prof.(Dr) P.S.Mukherjee,Department of Advanced materials Technology, CSIR-IMMT, Bhubaneswar and Subhakanta Dash, Research Scholar, Department of Chemistry, KIIT University, Odisha, India.

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