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**Deepmala\*** (dmrai23@gmail.com), Indian Statistical Institute, 203 B. T. Road, Kolkata, W. Bengal 700108, India, and **R. N. Mohapatra** (ram.mohapatra@ucf.edu), Mathematics Department, 4000 Central Florida Blvd., Orlando, FL 32816. *Mathematical Programming Approach Applied to Solve Aircraft Recovery Problems.*

The airline industry is one of the most successful examples of applying operations research methods and tools for the planning and scheduling of resources. Flight irregularity is a serious and widespread problem all over the world which involves significant cost to airlines, passengers and the society. Due to the associated costs, the use of efficient and accurate recovery process is of importance to the airline industry. Aircraft Recovery Problem (ARP) arises when an existing flight schedule has been disrupted due to some unforeseen events impacting the scheduled operational performance. Disruption results in a significant increase in an airline's operational costs related to crew overtime and increased fuel usage. Optimization theory plays an important role to get feasible, cost minimizing plans that allows the airlines to recover from the disruptions and their associated delays. Aircraft recovery is a challenging problem in both industrial and academic fields, and advanced mathematical programming methods are important in this context. In this talk, we give a brief survey and propose a model for the aircraft recovery problem. Finally, we indicate the future course of research in this context (Received September 10, 2016)