CLAIMS

What is claimed is:

1. A method of workflow assignment using at least one processor, the method comprising:

identifying an actionable event;

determining a plurality of tasks for the actionable event;

determining by a prediction model, for each of the plurality of tasks, one or more task parameters related to the task; and

generating by a workflow generation model, for the actionable event, a workflow for each of one or more individuals to perform at least one of the plurality of tasks based on the one or more task parameters,

wherein the prediction model and the workflow generation model are reinforced to update hyper parameters based on workflow execution data stored in a workflow execution log database.

2. The method according to claim 1, further comprising determining, for each of the plurality of tasks, one or more human resource parameters related to the task, wherein said generating the workflow is further based on the one or more human resource parameters.

3. The method according to claim 2, wherein said generating the workflow comprises optimizing the workflow for each of the one or more individuals based on the one or more task parameters, the one or more human resource parameters and one or more predetermined conditions.

4. The method according to claim 3, further comprising:

determining a ranking of the plurality of tasks to obtain a tasks ranking; and

determining, for each of the plurality of tasks, a ranking of a plurality of individuals with respect to the task to obtain an individuals ranking for the task.

5. The method according to claim 4, wherein

the one or more human resource parameters include a current location and a current availability of the individual, and

said ranking of the plurality of individuals with respect to the task is determined based on the current availability and the current location of each of the plurality of individuals.

6. The method according to claim 4 or 5, wherein

the one or more human resource parameters further include a performance of each of the plurality of individuals with respect to the task, and

said ranking of the plurality of individuals with respect to the task is determined further based on the performance of each of the plurality of individuals with respect to the task.

7. The method according to any one of claims 4 to 6, wherein

the one or more task parameters are selected from a group consisting of a location, a priority, a type, a frequency, a time, a cost and one or more required assets associated with the task, and

said ranking of the plurality of tasks is determined based on the one or more task parameters associated with each of the plurality of tasks.

8. The method according to any one of claims 4 to 7, further comprising determining an emergency rating for the plurality of tasks, wherein said ranking of the plurality of tasks is determined further based on the emergency rating.

9. The method according to claim 7 or 8, wherein the one or more task parameters further comprises an environment condition relating to the task.

10. The method according to any one of claims 4 to 9, wherein said optimizing the workflow is further based on the individuals ranking and the tasks ranking.

11. The method according to any one of claims 3 to 10, further comprising logging workflow executions to produce the~~a~~ workflow execution log database, wherein at least one of the one or more task parameters and the one or more human resource is determined based on the workflow execution log database.

12. The method according to claim 11, wherein the at least one of the one or more task parameters and the one or more human resource is determined using on a machine learning model based on the workflow execution log database.

13. A system for workflow assignment, the system comprising:

a memory; and

at least one processor communicatively coupled to the memory and configured to:

identify an actionable event;

determine a plurality of tasks for the actionable event;

determine by a prediction model, for each of the plurality of tasks, one or more task related to the task; and

generate by a workflow generation model, for the actionable event, a workflow for each of one or more individuals to perform at least one of the plurality of tasks based on the one or more task parameters,

wherein the prediction model and the workflow generation model are reinforced to update hyper parameters based on workflow execution data stored in a workflow execution log database.

14. The system according to claim 13, wherein the at least one processor is further configured to determine, for each of the plurality of tasks, one or more human resource parameters related to the task, and said generate the workflow is further based on the one or more human resource parameters.

15. The system according to claim 14, wherein said generate the workflow comprises optimizing the workflow for each of the one or more individuals based on the one or more task parameters, the one or more human resource parameters and one or more predetermined conditions.

16. The system according to claim 15, wherein the at least one processor is further configured to:

determine a ranking of the plurality of tasks to obtain a tasks ranking; and

determine, for each of the plurality of tasks, a ranking of a plurality of individuals with respect to the task to obtain an individuals ranking for the task.

17. The system according to claim 16, wherein

the one or more human resource parameters include a current location and a current availability of the individual, and

said ranking of the plurality of individuals with respect to the task is determined based on the current availability and the current location of each of the plurality of individuals.

18. The system according to claim 16 or 17, wherein

the one or more human resource parameters further include a performance of each of the plurality of individuals with respect to the task, and

said ranking of the plurality of individuals with respect to the task is determined further based on the performance of each of the plurality of individuals with respect to the task.

19. The system according to any one of claims 16 to 18, wherein

the one or more task parameters are selected from a group consisting of a location, a priority, a type, a frequency, a time, a cost and one or more required assets associated with the task, and

said ranking of the plurality of tasks is determined based on the one or more task parameters associated with each of the plurality of tasks.

20. The system according to any one of claims 16 to 19, further comprising determining an emergency rating for the plurality of tasks, wherein said ranking of the plurality of tasks is determined further based on the emergency rating.

21. The system according to claim 19 or 20, wherein the one or more task parameters further comprises an environment condition relating to the task.

22. The system according to any one of claims 16 to 21, wherein said optimizing the workflow is further based on the individuals ranking and the tasks ranking.

23. The system according to any one of claims 15 to 22, further comprising logging workflow executions to produce thea~~a~~ workflow execution log database, wherein at least one of the one or more task parameters and the one or more human resource is determined based on the workflow execution log database.

24. The system according to claim 23, wherein the at least one of the one or more task parameters and the one or more human resource is determined using on a machine learning model based on the workflow execution log database.

25. A computer program product, embodied in one or more non-transitory computer-readable storage mediums, comprising instructions executable by at least one processor to perform a method of workflow assignment comprising:

identifying an actionable event;

determining a plurality of tasks for the actionable event;

determining by a prediction model, for each of the plurality of tasks, one or more task parameters related to the task; and

generating by a workflow generation model, for the actionable event, a workflow for each of one or more individuals to perform at least one of the plurality of tasks based on the one or more task parameters,

wherein the prediction model and the workflow generation model are reinforced to update hyper parameters based on workflow execution data stored in a workflow execution log database.