

WE CLAIM:

1. A system of one or more electronic devices for predicting traffic accident locations, comprising:

at least one storage medium including a first operation system and a set of instructions compatible with the first operation system for providing an accident-prone road section to at least one information receiving terminal; and

at least one processor in communication with the storage medium, wherein when executing the first operation system and the set of instructions, the at least one processor is directed to:

obtain a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time;

determine a plurality of refined accident locations by, for each of the plurality of accident records,

operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal;

in response to the determination of the plurality of refined accident locations, determine at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure;

in response to the determination of the at least one accident-prone road section, generate electronic signals including information of one of the at least one accident-prone road section; and

direct the information receiving terminal to display an interface to

present the at least one accident-prone road section by sending the electronic signals to the information receiving terminal.

2. The system of claim 1, wherein to operate the first clustering procedure, the at least one processor is directed to:

identify a plurality of points corresponding to the inputs;

determine a result cluster and a result point associated with the result cluster

by a point-identification operation, including:

selecting a candidate cluster of points from the plurality of points;

selecting a candidate point from the candidate cluster of points;

operating a first iterative operation until a first stop criteria is met,

wherein the first iterative operation includes a plurality of first iterations, and

each of the first iteration includes:

using the candidate point as a center point and using the

candidate cluster of points as a target cluster of points;

identifying, from the target cluster of points, a cluster of points

that is within a predetermined distance from the center point as the

candidate cluster of points; and

identifying a point from the candidate cluster of points as the

candidate point.

3. The system of claim 2, wherein in each of the first iteration, the candidate point in the first iteration is associated with average coordinates of the corresponding candidate cluster of points in the first iteration.

4. The system of claim 2, wherein the at least one processor is further directed to:

upon that the candidate cluster of points identified in a final first iteration of the first iterative operation meets the first stop criteria,

obtain the candidate cluster of points corresponding to the final first

iteration as a result cluster of the first iterative operation; and

obtain the candidate point corresponding to the final first iteration as a result point of the first iterative operation.

5. The system of claim 4, wherein the at least one processor is further directed to output the result point of the first iterative operation as the first result of the first clustering procedure.

6. The system of claim 4, wherein the result point is one of a plurality of result points and the result cluster is one of a plurality of result clusters; and

the at least one processor is further directed to obtain a plurality of subsequent result points and a plurality of subsequent result clusters based on the output of the first iterative operation by operating a second iterative operation until a second stop criteria is met, wherein the second iterative operation includes a plurality of second iterations, and each of the second iteration includes:

updating the plurality of points by removing the result cluster of locations identified in the last iteration of the second iterative operation from the plurality of points; and

determining a subsequent result cluster of points and a subsequent result point based on the updated plurality of points by performing the point-identification operation.

7. The system of claim 6, wherein the at least one processor is further directed to: for each of the plurality of result clusters,

determine a stop time based on an amount of points in the result cluster;

determine whether the stop time associated with the result cluster is greater than a time threshold; and

in response to that the stop time is greater than the time threshold, assign the result point corresponding to the result cluster as the refined accident location.

8. The system of claim 1, wherein the second clustering procedure includes the first clustering procedure; and

to determine the at least one accident-prone road section, the processor is further directed to:

obtain the plurality of refined accident locations;

determine a plurality of result clusters by operating the second clustering procedure with the plurality of refined accident locations as inputs of the second clustering procedure; and

for each of the plurality of result clusters, assign a road section associated with the result cluster as an accident-prone road section.

9. The system of claim 8, wherein the at least one processor is further directed to:

for each of the plurality of result clusters,

determine an amount of points in the result cluster;

determine whether the amount is greater than a density threshold; and

in response that the amount is greater than the density threshold, determine a road section associated with the result cluster based on the points in the result cluster.

10. The system of claim 1, wherein to obtain the plurality of accident records, the at least one processor is further directed to:

receive a plurality of accident reports, each of the plurality of accident reports being associated with a corresponding target user terminal and including an on-record accident time and an an-record accident location;

obtain a plurality of historical locations of the target user terminals;

for each of the plurality of accident reports, merge the corresponding on-record accident time and the an-record accident location with the historical locations of the corresponding target user terminal to obtain an accident record associated with the corresponding target user terminal.

11. The system of claim 10, wherein each of the plurality of accident reports includes at least one of:

- an accident report reported by a user of a target user terminal;
- an accident report reported by an insurance company; or
- an accident report reported by a traffic police.

12. A method for predicting traffic accident locations, implemented on one or more electronic devices having at least one storage medium, and at least one processor in communication with the at least one storage medium, comprising:

- obtaining a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time;

- determining a plurality of refined accident locations by, for each of the plurality of accident records,

- operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal;

- in response to the determination of the plurality of refined accident locations, determining at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure;

- in response to the determination of the at least one accident-prone road section, generating electronic signals including information of one of the at least one accident-prone road section; and

- directing an information receiving terminal to display an interface to present the at least one accident-prone road section by sending the electronic signals to the

information receiving terminal.

13. The method of claim 12, wherein the operating the first clustering procedure includes:

- identifying a plurality of points corresponding to the inputs;

- determining a result cluster and a result point associated with the result cluster by a point-identification operation, including:

- selecting a candidate cluster of points from the plurality of points;

- selecting a candidate point from the candidate cluster of points;

- operating a first iterative operation until a first stop criteria is met, wherein the first iterative operation includes a plurality of first iterations, and each of the first iteration includes:

- using the candidate point as a center point and using the candidate cluster of points as a target cluster of points;

- identifying, from the target cluster of points, a cluster of points that is within a predetermined distance from the center point as the candidate cluster of points; and

- identifying a point from the candidate cluster of points as the candidate point.

14. The method of claim 13, wherein in each of the first iteration, the candidate point in the first iteration is associated with average coordinates of the corresponding candidate cluster of points in the first iteration.

15. The method of claim 13 further comprising:

- upon that the candidate cluster of points identified in a final first iteration of the first iterative operation meets the first stop criteria,

- obtaining the candidate cluster of points corresponding to the final first iteration as a result cluster of the first iterative operation; and

- obtaining the candidate point corresponding to the final first iteration

as a result point of the first iterative operation.

16. The method of claim 15 further comprising outputting the result point of the first iterative operation as the first result of the first clustering procedure.

17. The method of claim 15, wherein the result point is one of a plurality of result points and the result cluster is one of a plurality of result clusters; and the method further includes:

obtaining a plurality of subsequent result points and a plurality of subsequent result clusters based on the output of the first iterative operation by operating a second iterative operation until a second stop criteria is met, wherein the second iterative operation includes a plurality of second iterations, and each of the second iteration includes:

updating the plurality of points by removing the result cluster of locations identified in the last iteration of the second iterative operation from the plurality of points;

determining a subsequent result cluster of points and a subsequent result point based on the updated plurality of points by performing the point-identification operation.

18. The method of claim 17 further comprising:

for each of the plurality of result clusters,

determining a stop time based on an amount of points in the result cluster;

determining whether the stop time associated with the result cluster is greater than a time threshold; and

in response to that the stop time is greater than the time threshold, assigning the result point corresponding to the result cluster as the refined accident location.

19. The method of claim 12, wherein the second clustering procedure includes the first clustering procedure; and

the determining the at least one accident-prone road section includes:

obtaining the plurality of refined accident locations;

determining a plurality of result clusters by operating the second clustering procedure with the plurality of refined accident locations as inputs of the second clustering procedure; and

for each of the plurality of result clusters, assigning a road section associated with the result cluster as an accident-prone road section.

20. The method of claim 19 further comprising:

for each of the plurality of result clusters,

determining an amount of points in the result cluster;

determining whether the amount is greater than a density threshold;

and

in response that the amount is greater than the density threshold, determining a road section associated with the result cluster based on the points in the result cluster

21. The method of claim 12, wherein the obtaining the plurality of accident records includes:

receiving a plurality of accident reports, each of the plurality of accident reports being associated with a corresponding target user terminal and including an on-record accident time and an an-record accident location;

obtaining a plurality of historical locations of the target user terminals;

for each of the plurality of accident reports, merging the corresponding on-record accident time and the an-record accident location with the historical locations of the corresponding target user terminal to obtain an accident record associated with the corresponding target user terminal.

22. The method of claim 21, wherein each of the plurality of accident reports includes at least one of:

- an accident report reported by a user of a target user terminal;
- an accident report reported by an insurance company; or
- an accident report reported by a traffic police.

23. A non-transitory computer readable medium, comprising an operation system and at least one set of instructions compatible with the operation system for predicting traffic accident locations, wherein when executed by at least one processor of one or more electronic device, the at least one set of instructions directs the at least one processor to:

- obtain a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time;

- determine a plurality of refined accident locations by, for each of the plurality of accident records,

- operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal;

- in response to the determination of the plurality of refined accident locations, determine at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure;

- in response to the determination of the at least one accident-prone road section, generate electronic signals including information of one of the at

least one accident-prone road section; and

direct an information receiving terminal to display an interface to present the at least one accident-prone road section by sending the electronic signals to the information receiving terminal.

24. A system for predicting traffic accident locations, comprising:

a record obtaining module configured to obtain a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time

an accident location determination module configured to determine a plurality of refined accident locations by, for each of the plurality of accident records,

operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal;

a road section determination module configured to, in response to the determination of the plurality of refined accident locations, determine at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure; and

an information sending module configured to send information of the at least one accident-prone road section to an information receiving terminal.

25. An artificial intelligent system of one or more electronic devices for predicting traffic accident locations, comprising:

at least one information receiving port of an information providing system to receive a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records,

being associated with a corresponding target user terminal, and

including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time, wherein the plurality of locations is acquired from at least one GPS system of the information providing system through a network;

at least one information transmitting port of an information receiving system to transmit signals to at least one information receiving terminal, wherein the at least one information receiving terminal operates an application installed therein to respond to the signals;

at least one storage medium including a first operation system and a set of instructions compatible with the first operation system for providing an accident-prone road section to the at least one information receiving terminal; and

at least one processor in communication with the storage medium, wherein when executing the first operation system and the set of instructions, the at least one processor is directed to:

- obtain the plurality of accident records received from the at least one information receiving port;
- determine a plurality of refined accident locations by, for each of the plurality of accident records,
 - operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal;
- in response to the determination of the plurality of refined accident locations, determine at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure;
- in response to the determination of the at least one accident-prone

road section, generate electronic signals including information of one of the at least one accident-prone road section and a triggering code, wherein the triggering code:

is in a format recognizable by the application installed in the information receiving terminal, and

configured to render the application to generate a presentation of the at least one accident-prone road section on an interface of the information receiving terminal; and

direct the information receiving terminal to display the interface to present the accident-prone road section by sending the electronic signals to the information transmitting port.

26. The system of claim 25, wherein to operate the first clustering procedure, the at least one processor is directed to:

identify a plurality of points corresponding to the inputs;

determine a result cluster and a result point associated with the result cluster by a point-identification operation, including:

selecting a candidate cluster of points from the plurality of points;

selecting a candidate point from the candidate cluster of points;

operating a first iterative operation until a first stop criteria is met,

wherein the first iterative operation includes a plurality of first iterations, and each of the first iteration includes:

using the candidate point as a center point and using the candidate cluster of points as a target cluster of points;

identifying, from the target cluster of points, a cluster of points that is within a predetermined distance from the center point as the candidate cluster of points; and

identifying a point from the candidate cluster of points as the candidate point.

27. The system of claim 26, wherein in each of the first iteration, the candidate point in the first iteration is associated with average coordinates of the corresponding candidate cluster of points in the first iteration.

28. The system of claim 26, wherein the at least one processor is further directed to:
upon (a determination) that the candidate cluster of points identified in a final first iteration of the first iterative operation meets the first stop criteria,

obtain the candidate cluster of points corresponding to the final first iteration as a result cluster of the first iterative operation; and

obtain the candidate point corresponding to the final first iteration as a result point of the first iterative operation.

29. The system of claim 28, wherein the at least one processor is further directed to output the result point of the first iterative operation as the first result of the first clustering procedure.

30. The system of claim 28, wherein the result point is one of a plurality of result points and the result cluster is one of a plurality of result clusters; and

the at least one processor is further directed to obtain a plurality of subsequent result points and a plurality of subsequent result clusters based on the output of the first iterative operation by operating a second iterative operation until a second stop criteria is met, wherein the second iterative operation includes a plurality of second iterations, and each of the second iteration includes:

updating the plurality of points by removing the result cluster of locations identified in the last iteration of the second iterative operation from the plurality of points;

determining a subsequent result cluster of points and a subsequent result point based on the updated plurality of points by performing the point-identification operation.

31. The system of claim 30, wherein the at least one processor is further directed to:
- for each of the plurality of result clusters,
 - determine a stop time based on an amount of points in the result cluster;
 - determine whether the stop time associated with the candidate result cluster is greater than a time threshold; and
 - in response to that the stop time is greater than the time threshold, assign the result point corresponding to the candidate result cluster as the refined accident location.
32. The system of claim 25, wherein the second clustering procedure includes the first clustering procedure; and
- to determine the at least one accident-prone road section, the processor is further directed to:
 - obtain the plurality of refined accident locations;
 - determine a plurality of result clusters by operating the second clustering procedure with the plurality of refined accident locations as inputs of the second clustering procedure; and
 - for each of the plurality of result clusters, assign a road section corresponding to the result cluster as an accident-prone road section.
33. The system of claim 32, wherein the at least one processor is further directed to:
- for each of the plurality of result clusters,
 - determine an amount of points in the result cluster;
 - determine whether the amount is greater than a density threshold; and
 - in response that the amount is greater than the density threshold, determine a road section associated with the result cluster based on the points in the result cluster.
34. The system of claim 25, wherein to obtain the plurality of accident records, the at

least one processor is further directed to:

- receive a plurality of accident reports, each of the plurality of accident reports being associated with a corresponding target user terminal and including an on-record accident time and an an-record accident location;

- obtain a plurality of historical locations of the target user terminals;

- for each of the plurality of accident reports, merge the corresponding on-record accident time and the an-record accident location with the historical locations of the corresponding target user terminal to obtain an accident record associated with the corresponding target user terminal.

35. The system of claim 34, wherein each of the plurality of accident reports includes at least one of:

- an accident report reported by a user of a target user terminal;

- an accident report reported by an insurance company; or

- an accident report reported by a traffic police.

36. A method for predicting traffic accident locations, implemented on one or more electronic devices having at least one information receiving port of an information providing system, at least one information transmitting port of an information receiving system, at least one storage medium, and at least one processor in communication with the storage medium, comprising:

- obtaining a plurality of accident records of a plurality of traffic accidents received from the at least one information receiving port, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time;

- determining a plurality of refined accident locations by, for each of the plurality of accident records,

- operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure

and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal;

in response to the determination of the plurality of refined accident locations, determining at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure;

in response to the determination of the at least one accident-prone road section, generating electronic signals including information of one of the at least one accident-prone road section and a triggering code, wherein the triggering code:

- is in a format recognizable by the application installed in the information receiving terminal, and
- configured to render the application to generate a presentation of the at least one accident-prone road section on an interface of the information receiving terminal; and
- directing the information receiving terminal to display the interface to present the accident-prone road section by sending the electronic signals to the information transmitting port.

37. The method of claim 36, wherein the operating the first clustering procedure includes:

- identifying a plurality of points corresponding to the inputs;
- determining a result cluster and a result point associated with the result cluster by a point-identification operation, including:
 - selecting a candidate cluster of points from the plurality of points;
 - selecting a candidate point from the candidate cluster of points;
 - operating a first iterative operation until a first stop criteria is met, wherein the first iterative operation includes a plurality of first iterations, and each of the first iteration includes:
 - using the candidate point as a center point and using the candidate cluster of points as a target cluster of points;

identifying, from the target cluster of points, a cluster of points that is within a predetermined distance from the center point as the candidate cluster of points; and

identifying a point from the candidate cluster of points as the candidate point.

38. The method of claim 37, wherein in each of the first iteration, the candidate point in the first iteration is associated with average coordinates of the corresponding candidate cluster of points in the first iteration.

39. The method of claim 37 further comprising:

upon that the candidate cluster of points identified in a final first iteration of the first iterative operation meets the first stop criteria,

obtaining the candidate cluster of points corresponding to the final first iteration as a result cluster of the first iterative operation; and

obtaining the candidate point corresponding to the final first iteration as a result point of the first iterative operation.

40. The method of claim 39 further comprising outputting the result point of the first iterative operation as the first result of the first clustering procedure.

41. The method of claim 39, wherein the result point is one of a plurality of result points and the result cluster is one of a plurality of result clusters; and the method further includes:

obtaining a plurality of subsequent result points and a plurality of subsequent result clusters based on the output of the first iterative operation by operating a second iterative operation until a second stop criteria is met, wherein the second iterative operation includes a plurality of second iterations, and each of the second iteration includes:

updating the plurality of points by removing the result cluster of

locations identified in the last iteration of the second iterative operation from the plurality of points;

determining a subsequent result cluster of points and a subsequent result point based on the updated plurality of points by performing the point-identification operation.

42. The method of claim 41 further comprising:

for each of the plurality of result clusters,

determining a stop time based on an amount of points in the result cluster;

determining whether the stop time associated with the candidate result cluster is greater than a time threshold; and

in response to that the stop time is greater than the time threshold, assigning the result point corresponding to the candidate result cluster as the refined accident location.

43. The method of claim 36, wherein the second clustering procedure includes the first clustering procedure; and

the determining the at least one accident-prone road section includes:

obtaining the plurality of refined accident locations;

determining a plurality of result clusters by operating the second clustering procedure with the plurality of refined accident locations as inputs of the second clustering procedure; and

for each of the plurality of result clusters, assigning a road section associated with the result cluster as an accident-prone road section.

44. The method of claim 43 further comprising,:

for each of the plurality of result clusters,

determining an amount of points in the result cluster;

determining whether the amount is greater than a density threshold;

and

in response that the amount is greater than the density threshold,
determining a road section associated with the result cluster based on the
points in the result cluster

45. The method of claim 36, wherein the obtaining the plurality of accident records includes:

receiving a plurality of accident reports, each of the plurality of accident reports being associated with a corresponding target user terminal and including an on-record accident time and an an-record accident location;

obtaining a plurality of historical locations of the target user terminals;

for each of the plurality of accident reports, merging the corresponding on-record accident time and the an-record accident location with the historical locations of the corresponding target user terminal to obtain an accident record associated with the corresponding target user terminal.

46. The method of claim 45, wherein each of the plurality of accident reports includes at least one of:

an accident report reported by a user of a target user terminal;

an accident report reported by an insurance company; or

an accident report reported by a traffic police.

47. A non-transitory computer readable medium, comprising an operation system and at least one set of instructions compatible with the operation system for predicting traffic accident locations, wherein when executed by at least one processor of one or more electronic device, the at least one set of instructions directs the at least one processor to:

obtain a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality

of locations that the target user terminal appeared around the on-record accident time;

determine a plurality of refined accident locations by, for each of the plurality of accident records,

operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal;

in response to the determination of the plurality of refined accident locations, determine at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure;

in response to the determination of the at least one accident-prone road section, generate electronic signals including information of one of the at least one accident-prone road section and a triggering code, wherein the triggering code:

is in a format recognizable by an application installed in an information receiving terminal, and

configured to render the application to generate a presentation of the at least one accident-prone road section on an interface of the information receiving terminal; and

direct the information receiving terminal to display the interface to present the accident-prone road section by sending the electronic signals to the information transmitting port.

48. A system of one or more electronic devices for predicting traffic accident locations, comprising:

at least one storage medium including a first operation system and a set of instructions compatible with the first operation system for predicting traffic accident locations; and

at least one processor in communication with the storage medium, wherein

when executing the first operation system and the set of instructions, the at least one processor is directed to:

- obtain a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time; and

- determine a plurality of refined accident locations by, for each of the plurality of accident records,

- operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal.

49. The system of claim 48, wherein to operate the first clustering procedure, the at least one processor is directed to:

- identify a plurality of points corresponding to the inputs;

- determine a result cluster and a result point associated with the result cluster by a point-identification operation, including:

- selecting a candidate cluster of points from the plurality of points;

- selecting a candidate point from the candidate cluster of points;

- operating a first iterative operation until a first stop criteria is met, wherein the first iterative operation includes a plurality of first iterations, and each of the first iteration includes:

- using the candidate point as a center point and using the candidate cluster of points as a target cluster of points;

- identifying, from the target cluster of points, a cluster of points that is within a predetermined distance from the center point as the candidate cluster of points; and

identifying a point from the candidate cluster of points as the candidate point.

50. The system of claim 49, wherein in each of the first iteration, the candidate point in the first iteration is associated with average coordinates of the corresponding candidate cluster of points in the first iteration.

51. The system of claim 49, wherein the at least one processor is further directed to:
upon that the candidate cluster of points identified in a final first iteration of the first iterative operation meets the first stop criteria,

obtain the candidate cluster of points corresponding to the final first iteration as a result cluster of the first iterative operation; and

obtain the candidate point corresponding to the final first iteration as a result point of the first iterative operation.

52. The system of claim 51, wherein the at least one processor is further directed to output the result point of the first iterative operation as the first result of the first clustering procedure.

53. The system of claim 51, wherein the result point is one of a plurality of result points and the result cluster is one of a plurality of result clusters; and

the at least one processor is further directed to obtain a plurality of subsequent result points and a plurality of subsequent result clusters based on the output of the first iterative operation by operating a second iterative operation until a second stop criteria is met, wherein the second iterative operation includes a plurality of second iterations, and each of the second iteration includes:

updating the plurality of points by removing the result cluster of locations identified in the last iteration of the second iterative operation from the plurality of points; and

determining a subsequent result cluster of points and a subsequent

result point based on the updated plurality of points by performing the point-identification operation.

54. The system of claim 48, wherein the at least one processor is further directed to:

- in response to the determination of the plurality of refined accident locations, determine at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure;
- in response to the determination of the at least one accident-prone road section, generate electronic signals including information of one of the at least one accident-prone road section; and
- direct the information receiving terminal to display an interface to present the at least one accident-prone road section by sending the electronic signals to the information receiving terminal.

55. The system of claim 54, wherein the second clustering procedure includes the first clustering procedure; and

- to determine the at least one accident-prone road section, the processor is further directed to:
 - obtain the plurality of refined accident locations;
 - determine a plurality of result clusters by operating the second clustering procedure with the plurality of refined accident locations as inputs of the second clustering procedure; and
 - for each of the plurality of result clusters, assign a road section associated with the result cluster as an accident-prone road section.

56. A method for predicting traffic accident locations, implemented on one or more electronic devices having at least one storage medium, and at least one processor in communication with the at least one storage medium, comprising:

obtaining a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time; and

determining a plurality of refined accident locations by, for each of the plurality of accident records,

operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal.

57. The method of claim 56, wherein the operating the first clustering procedure includes:

identifying a plurality of points corresponding to the inputs;

determining a result cluster and a result point associated with the result cluster by a point-identification operation, including:

selecting a candidate cluster of points from the plurality of points;

selecting a candidate point from the candidate cluster of points;

operating a first iterative operation until a first stop criteria is met, wherein the first iterative operation includes a plurality of first iterations, and each of the first iteration includes:

using the candidate point as a center point and using the candidate cluster of points as a target cluster of points;

identifying, from the target cluster of points, a cluster of points that is within a predetermined distance from the center point as the candidate cluster of points; and

identifying a point from the candidate cluster of points as the candidate point.

58. The method of claim 57, wherein in each of the first iteration, the candidate point in the first iteration is associated with average coordinates of the corresponding candidate cluster of points in the first iteration.

59. The method of claim 57 further comprising:

upon that the candidate cluster of points identified in a final first iteration of the first iterative operation meets the first stop criteria,

obtaining the candidate cluster of points corresponding to the final first iteration as a result cluster of the first iterative operation; and

obtaining the candidate point corresponding to the final first iteration as a result point of the first iterative operation.

60. The method of claim 59 further comprising outputting the result point of the first iterative operation as the first result of the first clustering procedure.

61. The method of claim 59, wherein the result point is one of a plurality of result points and the result cluster is one of a plurality of result clusters; and the method further includes:

obtaining a plurality of subsequent result points and a plurality of subsequent result clusters based on the output of the first iterative operation by operating a second iterative operation until a second stop criteria is met, wherein the second iterative operation includes a plurality of second iterations, and each of the second iteration includes:

updating the plurality of points by removing the result cluster of locations identified in the last iteration of the second iterative operation from the plurality of points;

determining a subsequent result cluster of points and a subsequent result point based on the updated plurality of points by performing the point-identification operation.

62. The method of claim 56 further comprising:

in response to the determination of the plurality of refined accident locations, determining at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure;

in response to the determination of the at least one accident-prone road section, generating electronic signals including information of one of the at least one accident-prone road section; and

directing the information receiving terminal to display an interface to present the at least one accident-prone road section by sending the electronic signals to the information receiving terminal.

63. The method of claim 62, wherein the second clustering procedure includes the first clustering procedure; and

the determining the at least one accident-prone road section includes:

obtaining the plurality of refined accident locations;

determining a plurality of result clusters by operating the second clustering procedure with the plurality of refined accident locations as inputs of the second clustering procedure; and

for each of the plurality of result clusters, assigning a road section associated with the result cluster as an accident-prone road section.

64. A system for predicting traffic accident locations, comprising:

a record obtaining module configured to obtain a plurality of accident records of a plurality of traffic accidents, each of the plurality of accident records being associated with a corresponding target user terminal and including an on-record accident time of a traffic accident and a plurality of locations that the target user terminal appeared around the on-record accident time;

an accident location determination module configured to determine a plurality of refined accident locations by, for each of the plurality of accident records,

operating a first clustering procedure with the corresponding plurality of locations of the target user terminal as inputs of the first clustering procedure and assigning a first result of the first clustering procedure as a refined accident location of the plurality of locations of the target user terminal; and a road section determination module configured to in response to the determination of the plurality of refined accident locations, determine at least one accident-prone road section by operating a second clustering procedure with the plurality of refined accident locations corresponding to the plurality of accident records as the inputs of the second clustering procedure.