**The pseudocode for Step 2 is as follows:**

1:(step 2.1) **Divide equal partial-datasets:**

2: Sample the original complete training dataset into *S* equal partial-datasets *Ds T*:

3: *DT* = { *D*1 *T*, …, *Ds T*, … , *DS T* }

4:(step 2.2) **Construct sub-datasets:**

5: **for** *s* = 1 to *S* **do**

6: 

7: **end for**

8:(step 2.3) **Construct sub-models:**

9: **for** *s* = 1 to *S* **do**

10: Construct *s*th model with *Bs T* using BP neural network

11: **end for**

12:(step 2.4) **Calculate sub-errors:**

13: **for** *s* = 1 to *S* **do**

14: **for** *p* =1 to *length*(*Bs T*) **do**

15: **Calculate** **absolute error:**

16:  (1)

17: where *yp* denotes the actual output of the *p*th set of data,

18: and *ys p* denotes the output from the *s*th sub-model of the *p*th set of data

19: **end for**

20: **end for**

**The pseudocode for Step 3 is as follows:**

**­** 1:**(step 3.1) Calculate the weights:**

2: **for** *s* = 1 to *S* do

3: **Calculate MAPE:**

4:  (2)

5: **Calculate the weights of sub-models:**

6:  (3)

7: **end for**

8:(step 3.2) **Calculate the weighted average error:**

9: **for** *s* = 1 to *S* **do**

10: **for** *p* = 1 to *length*(*Bs T*) **do**

11: **Calculate the average error:**

12:  (5)

13: **end for**

14: **end for**

15:(step 3.3) **Identify intuitive data and counterintuitive data:**

16: **Form the ordered list**:

17:  (6)

18: where there is *e*1<*e*2<…<*ep*<*ep*+1<…<*eP*-1<*eP*.

19: **Calculate the marginal errors:**

20:  (7)

21:  **Identify intuitive data and counterintuitive data:**

22:  (8)

23: where *v* denotes the preset marginal error threshold

**The pseudocode for step 4 is as follows:**

1:(step 4.1) **Calculate *M* identification results:** Same as step 2 and step 3

2:(step 4.2) **Confirm counterituitive data:**

3:  (9)

**The pseudocode for step 5 is as follows:**

1:(step 5.1) **Calculate the frequency *fp*:**

2:*fp* means the *p*th set of data being confirmed as counterintuitive data by *M*

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4:(step 5.2) **Set weight penalty coefficients:**

5: e.g., *μ*-1=10 *fp*=[101, 102, 103, …] for *fp*=1, 2, 3, ….

6:(step 5.3) **Update the weight:**

7: select:  (11)

**The pseudocode for step 6 is as follows:**

1:(step 6.1) **Construct the final model:**

2: The objective function in modeling training for the final model is:

3:  (13)

4:(step 6.2) **Validate the prediction accuracy on the testing dataset:**

5: **Calculate the MAE:**

6:  (14)

7: where *ya q* and *ye q* denote the actual and predicted output of the *q*th set of testing

8: data, *Q* denotes the length of the testing dataset.

9:(step 6.3) **Validate the data type identification on the testing dataset.**