

176195-EN-fourier-series-nonparametric-regression

by dodi mulyadi

General metrics

11,762

characters

1,842

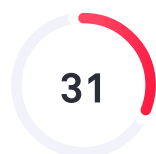
words

143

sentences

7 min 22 secreading
time**14 min 10 sec**speaking
time

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Writing Issues

290

Issues left

226

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Writing Issues

243

Correctness

52

Misspelled words



117

Improper formatting



1

Unknown words



27

Determiner use (a/an/the/this, etc.)



5

Comma misuse within clauses



3

Misplaced words or phrases



2

Misuse of semicolons, quotation marks, etc.



8

Wrong or missing prepositions



11

Punctuation in compound/complex sentences



1

Commonly confused words



5

Incorrect noun number



1

Incorrect verb forms



2

Pronoun use



7

Confused words



1

Closing punctuation



21

Engagement

21

Word choice



25

Clarity

1

Hard-to-read text



16

Passive voice misuse



6

Intricate text



2

Wordy sentences



1

Delivery

1 Inappropriate colloquialisms



Unique Words

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Measures vocabulary diversity by calculating the percentage of words used only once in your document

unique words

Rare Words

36%

Measures depth of vocabulary by identifying words that are not among the 5,000 most common English words.

rare words

Word Length

4.1

Measures average word length

characters per word

Sentence Length

12.9

Measures average sentence length

words per sentence

176195-EN-fourier-series-nonparametric-regression

119

291 | FOURIER SERIES NONPARAMETRIC REGRESSION FOR THE MODELIZING OF
THE TIDAL

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292 | Abstract

The method of statistic used to estimate the estimation of sea water level is by nonparametric regression approaching of Fourier series. The rob flood caused by sea level rise in Semarang becomes a dissolved problem until today. This results the need of modeling to predict and know how high sea level is. The fourier series have fluctuative data pattern because of its periodic character. This makes Fourier series as the appropriate approaching to modelize the sea tidal. Before modelizing the sea tidal with Fourier series approaching, It is previously necessary to find the optimal K value. Based on the determination of optimal K value, with GCV method, It is obtained K equals 277. The result of average data of the Semarang sea tidal with regression nonparametic method showed that R2 is 95% and MSE = 4,42. The lowest tidal estimation resulted in Semarang is on March 2, 2016. Then the highest tidal estimation in Semarang City occurred on August 31, 2016.

Keywords : Nonparametric Regression, Fourier Series, Tidal Sea

1. Introduction

The method of statistic plays an important role in estimating of sea level. One of methods used in this writing is by regression nonparametic approaching. The regression nonparametic approaching is method of estimating model based on approaching which is not tied to the assumption in the form of certain regression curva. One of regression nonparametic approaching is using Fourier Series. The strength of Fourier Series of regression nonparametic approaching is that it enables to solve the triginometrical distribution data and fluctuative

data pattern, ¹⁰⁷is dependent fluctuating variable value to various independent value (Prahutama, 2013).

Researchs ¹⁰⁸about regression nonparametic ¹⁰⁹approaching of ¹¹⁰Fourier Series ^{111,112}were ^{113 114}done previously by ¹¹⁵Semiati (2010) ¹¹⁶Developing the estimation model of regression nonparamatic ^{117,118}approaching of ^{119,120}biresponse ¹²¹Fourier Series, ^{122 123}while semiparametic regression using ¹²⁴fourier series ^{125,126}developed by ¹²⁷Asrini (2012), research done by ¹²⁸Prahutama (2013) ^{129,130}reviewing regression nonparametic ^{131 132}model ^{133 134}with ¹³⁵fourier series in case of ¹³⁶opened unemployment level in east java, and ¹³⁷research about the modeling of sea tidal in Semarang with local polynominal regression nonparametric ¹³⁸approaching by ¹³⁹Utami and Nur (2015).

Tidal is ¹⁴⁰sea level ¹⁴¹fluctuation as time function for the ¹⁴²existence of celestial object tensile ¹⁴³strenght, ¹⁴⁴especially ¹⁴⁵sun and moon. Sea level rise that maintains ¹⁴⁶increasing, is worried to threaten coastal areas so that causing the financial and economic disadvantage. ¹⁴⁷This will be ^{148,149}certainly ¹⁵⁰impacting on sea level. The ¹⁵¹occurance of subsidence in Semarang also worsens the sea level rise. The subsidence happens because of consolidation ¹⁵²a ¹⁵³nd ¹⁵⁴excessively ¹⁵⁵artetic taking (Sarbidi, 2002). ¹⁵⁶This will cause ¹⁵⁷flood in Semarang when the tide is high.

¹⁵⁸Rob flood ¹⁵⁹occured in Semarang becomes a dissolved problem until today. ¹⁶⁰This is caused the certain ¹⁶¹number of ¹⁶²sea level ¹⁶³rise in Semarang is not ¹⁶⁴obvious. Vulnerability research in coastal areas ¹⁶⁵is demanded in order to reduce the impacts and possible responses related to the change of ongoing phenomena. ¹⁶⁶This results in the need for modeling to predict and know how high the sea level is. The result of the modeling ¹⁶⁷is expected to help the concerning parties the strategical steps is needed to ¹⁶⁸be done so that not suffering significant losses. Tidal data shows the pattern of ¹⁶⁹distribution periodic data or fluctuating. Therefore, the appropriate

statistica l method for tidal modeling tide in Semarang is using the nonparametric regression approach of Fourier series.

1.1 Fourier Series Nonparametric Regression

The method of Fourier series nonparametric regression is the regression method used when the curva is between dependent and independent variable, and Independent variable is not known for the form and pattern. The common nonparametric regression model is as follows

(1.1)

with,

$\square$

= dependent variable

= independent variable

= regression function

Fourier Series is a trygonometric polynomial function that has flexibility level. This fourier series estimator is generally used when the used data and explored data are not known and there is a seasonal pattern tendency (Tripena and Budiantara, 2006). Fourier Series function in this research is as follows

with

$\square$

is fourier coeficient (Asrini, 2012).

□(1.2)

The

The level of estimator graduation of fourier series is determined by graduation parameter election. The lower a estimator graduation of fourier series is, the more graduation the graduation parameter K and the higher graduation parameter is, the more less-gradutional the estimation is from . Therefore, it is needed to elect The optimal K.

1.2 The Tidal Sea

Tidal is sea level fluctuation as time function for the existence of celestial object tensile strenght, especially sun and moon to sea volume on the earth this tensile strenght is depending from the distance of earth with celestial objects and their volume. Tidal is the important factor of coastal geomorphology, In this case, It is the neat changing of sea level along the coast and currents formed by tide. In addition, tidal knowledge is important in the planning of coastal buildings, ports and vegetation. Coastal area is a very dynamic and rich in biological and non-biological natural resources. But coastal areas are more vulnerable to the phenomenon of global warming that causes sea level rise. Coastal areas are areas that will be adversely affected by the

global ²²¹sea level ²²²rise phenomenon. Theoretically, ²²³sea level rise will inundate some coastal areas, So that causing ²²⁴sea water to continue to land in the direction of land. Coastal areas are a region that is weak or vulnerable by environmental factors such as climate variability, climate change ²²⁵and rising sea levels. Annual ²²⁶sea water rise in Semarang reaches 9,27 mm. The problem of ²²⁷sea level rise is a problem that ²²⁸is noticed after the occurrence of global warming (global warming). Rising global surface temperatures caused the melting of the north and south poles of ice ²²⁹so there was a rise in sea level (Sea Level Rise). It ²³⁰is estimated that from 1999-2100 upcoming ²³¹sea level rise around 1,4-5,8 m (Dahuri, 2002).

2. Methods

2.1 Data Resources

The ²³²main data ²³³resources used in this research is the secondary data served by BMKG. The taken data is the daily data in a year (January 1, ²³⁴2016 until December 31, 2016).

2.2 Research Variable

Table 2.1 Dependent Variable and Independent Variable

Variable

Variable

Information

Unit of

Measure

Definiton²³⁵ of Counting

Dependent

Tidal

Cm

Counted from everyday rainfall in a year starting from January 1, 2016²³⁶ until
December
31, 2016 in Semarang

Independent

Time

Day

Counted from How many days are from
January-December 2016, is 366 days

The

2.3 Procedures (or research design)

Analysis steps in this research can be described in diagram²³⁷ as described in
Flowchart 2.1 below:

Begin

Data

Determine the Optimal K with GCV method, After obtaining The optimal K then estimated the model with regression nonparametric approaching of Fourier Series²³⁸

Modelized the tidal in Semarang with Fourier Series regression nonparametric

End

Flowchart 2.1 Analysis steps in this research

3. Results

3.1 Determine Optimal K

The first step²³⁹ is to determine²⁴⁰ the optimal K value²⁴¹ The optimal K value is a positive integer. The determination of the optimal K value is using GCV method²⁴² then²⁴³ running the program of the determination²⁴⁴ of optimal K value on Tidal in Semarang based on GCV method²⁴⁵. The obtained result from the tested K is as follows:

Table 3.1 The Value Using GCV Method to Every Optimal K

Table 3.1 shows that the Optimal K on the average data of Tidal in Semarang is on $K=367$ because of the lowest GCV value. By getting $K = 367$ as the optimal K, so it is known how many parameter must be estimated by 369 parameter. This is obtained based on equation 1.2 that is by knowing the amount of the estimated parameter. Therefore, it is known the resulted model to be fulfilled and seen from R^2 for $K=1$ to $K=367$.

The

Table 3.2 R^2 and MSE to Every Optimal K

Based on Table 3.2, it shows that for value $K = 277$ has resulted $R^2 = 95\%$ which is enough high. The chosen method is a high R^2 , low MSE and parsimony model, so the chosen model is $K=277$.

3.2 The Modelizing of Average Tidal Data in Semarang with Fourier Series

After knowing that the optimal K is 277, the next step is to determine the estimation model of tidal with regression nonparametric approaching of Fourier Series. The result of estimated model can be seen on attachment 1.

Attachment 1 shows that the obtained model for average tidal data in Semarang as follows :

$$\begin{aligned} y^{\wedge} &= 62,942 + 0,066t + 0,331\cos t \\ &+ 0,328\cos 2t + 0,488\cos 3t \\ &+ 0,395\cos 4t + 0,073\cos 5t + \dots \\ &+ 0,070\cos 277t \end{aligned}$$

4. Discussion

Based on the obtained modelizing, it is known that if $(t) = 62$, so it can be estimated that average tidal data in Semarang is in the amount of 52,42 cm. The estimation result of the lowest tide in Semarang is the amount of 52,42 cm on March 2, 2016. The estimation result of highest tide in Semarang is the amount of

108,96 cm, on August 31, 2016. The result of the model can be used to forecast the average tidal that will be going to happen in the future by entering how many (t) that can be predicted in the equation .

5. Conclusions

The result of the determination of optimal K with ^{285,286}GVC method is K = 277. The result of modelizing that ²⁸⁷is obtained for the ²⁸⁸tidal average data in Semarang with R2 is in the amount of 95% and MSE = 4,42 as follows:

$$\begin{aligned} \hat{y} = & 62,942 + 0,066t + 0,331\cos t \\ & + 0,328\cos 2t + 0,488\cos 3t \\ & + 0,395\cos 4t + 0,073\cos 5t + \dots \\ & + 0,070\cos 277t \end{aligned}$$

The estimation result of the lowest tide in Semarang is on March 2, 2016. The estimation result of ²⁹⁰highest tide in Semarang on August 31, 2016.

6. References

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The

Attachment 1. Estimated Parameter Model Regression Nonparametric Approaching of Fourier Series

□

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1.	sea water → seawater	Confused Words	Correctness
2.	regression approaching	Improper Formatting	Correctness
3.	approaching of → approaching of	Improper Formatting	Correctness
4.	Fourier series → Fourier series	Improper Formatting	Correctness
5.	flood caused → flood caused	Improper Formatting	Correctness
6.	caused by → caused by	Improper Formatting	Correctness
7.	sea level → sea-level	Misspelled Words	Correctness
8.	level rise → level rise	Improper Formatting	Correctness
9.	Semarang becomes	Improper Formatting	Correctness
10.	becomes a → becomes a	Improper Formatting	Correctness
11.	today.	Punctuation in Compound/Complex Sentences	Correctness
12.	results in, or results from	Wrong or Missing Prepositions	Correctness
13.	of → for	Wrong or Missing Prepositions	Correctness
14.	fourier → Fourier	Misspelled Words	Correctness
15.	fluctuative → fluctuating	Misspelled Words	Correctness
16.	a fluctuative	Determiner Use (a/an/the/this, etc.)	Correctness
17.	fluctuative data	Improper Formatting	Correctness
18.	<i>This</i>	Intricate Text	Clarity
19.	as	Wrong or Missing Prepositions	Correctness

20.	appropriate approaching	Improper Formatting	Correctness
21.	approaching → approach	Confused Words	Correctness
22.	approaching to → approaching to	Improper Formatting	Correctness
23.	modelize	Unknown Words	Correctness
24.	the Fourier	Determiner Use (a/an/the/this, etc.)	Correctness
25.	previously necessary	Improper Formatting	Correctness
26.	value-.	Improper Formatting	Correctness
27.	determination of	Improper Formatting	Correctness
28.	the GCV	Determiner Use (a/an/the/this, etc.)	Correctness
29.	obtanied → obtained	Misspelled Words	Correctness
30.	the average	Determiner Use (a/an/the/this, etc.)	Correctness
31.	average data → average data	Improper Formatting	Correctness
32.	Semarang sea → Semarang sea	Improper Formatting	Correctness
33.	tidal with → tidal with	Improper Formatting	Correctness
34.	with reggression	Improper Formatting	Correctness
35.	reggression → regression	Misspelled Words	Correctness
36.	reggression nonparametic	Improper Formatting	Correctness
37.	nonparametic → nonparametric	Misspelled Words	Correctness
38.	nonparametic method	Improper Formatting	Correctness

39.	method → way, process, plan, purpose	Word Choice	Engagement
40.	method showed → method showed	Improper Formatting	Correctness
41.	showed that → showed that	Improper Formatting	Correctness
42.	lowest tidal → lowest tidal	Improper Formatting	Correctness
43.	estimation resulted	Improper Formatting	Correctness
44.	Semarang is → Semarang is	Improper Formatting	Correctness
45.	estimation → opinion, evaluation, estimate	Word Choice	Engagement
46.	estimation in → estimation in	Improper Formatting	Correctness
47.	Keywords-:	Improper Formatting	Correctness
48.	statistic → statistics	Incorrect Noun Number	Correctness
49.	an important → a vital, an essential	Word Choice	Engagement
50.	important role → important role	Improper Formatting	Correctness
51.	estimating of → estimating of	Improper Formatting	Correctness
52.	of	Wrong or Missing Prepositions	Correctness
53.	the methods	Determiner Use (a/an/the/this, etc.)	Correctness
54.	nonparametic → nonparametric	Misspelled Words	Correctness
55.	nonparametic approaching	Improper Formatting	Correctness
56.	nonparametic → nonparametric	Misspelled Words	Correctness
57.	nonparametic approaching	Improper Formatting	Correctness

58.	approaching is → approaching is	Improper Formatting	Correctness
59.	a method, or the method	Determiner Use (a/an/the/this, etc.)	Correctness
60.	of estimating → of estimating	Improper Formatting	Correctness
61.	estimating model	Improper Formatting	Correctness
62.	model based → model based	Improper Formatting	Correctness
63.	based on → based on	Improper Formatting	Correctness
64.	on approaching → on approaching	Improper Formatting	Correctness
65.	approaching which	Improper Formatting	Correctness
66.	, which	Punctuation in Compound/Complex Sentences	Correctness
67.	which is → which is	Improper Formatting	Correctness
68.	is not → is not	Improper Formatting	Correctness
69.	is not tied	Passive Voice Misuse	Clarity
70.	not tied → not tied	Improper Formatting	Correctness
71.	tied to → tied to	Improper Formatting	Correctness
72.	the assumption → the assumption	Improper Formatting	Correctness
73.	assumption in → assumption in	Improper Formatting	Correctness
74.	the form → the form	Improper Formatting	Correctness
75.	form of → form of	Improper Formatting	Correctness
76.	of certain → of certain	Improper Formatting	Correctness
77.	regression curva	Improper Formatting	Correctness

78.	curva → curve	Misspelled Words	Correctness
79.	One of → One of	Improper Formatting	Correctness
80.	of regression → of regression	Improper Formatting	Correctness
81.	the regression	Determiner Use (a/an/the/this, etc.)	Correctness
82.	regression nonparametic	Improper Formatting	Correctness
83.	nonparametic → nonparametric	Misspelled Words	Correctness
84.	nonparametic approaching	Improper Formatting	Correctness
85.	approaching is → approaching is	Improper Formatting	Correctness
86.	The strength → The strength	Improper Formatting	Correctness
87.	strength of → strength of	Improper Formatting	Correctness
88.	the Fourier	Determiner Use (a/an/the/this, etc.)	Correctness
89.	Series of → Series of	Improper Formatting	Correctness
90.	of regression → of regression	Improper Formatting	Correctness
91.	regression nonparametic	Improper Formatting	Correctness
92.	nonparametic → nonparametric	Misspelled Words	Correctness
93.	nonparametic approaching	Improper Formatting	Correctness
94.	approaching → approach	Incorrect Verb Forms	Correctness
95.	approaching is → approaching is	Improper Formatting	Correctness
96.	is that → is that	Improper Formatting	Correctness
97.	that it → that it	Improper Formatting	Correctness

98.	it enables → it enables	Improper Formatting	Correctness
99.	enables to → enables to	Improper Formatting	Correctness
100.	to solve → to solve	Improper Formatting	Correctness
101.	solve the → solve the	Improper Formatting	Correctness
102.	of the	Wrong or Missing Prepositions	Correctness
103.	the triginometrical	Improper Formatting	Correctness
104.	triginometrical → trigonometrical, trigonometric	Misspelled Words	Correctness
105.	distribution data	Improper Formatting	Correctness
106.	fluctuative → fluctuating, fluctuation	Misspelled Words	Correctness
107.	which is	Pronoun Use	Correctness
108.	Researchs → Research	Misspelled Words	Correctness
109.	Researchs about	Improper Formatting	Correctness
110.	about regression	Improper Formatting	Correctness
111.	regression nonparametic	Improper Formatting	Correctness
112.	nonparametic → nonparametric	Misspelled Words	Correctness
113.	nonparametic approaching	Improper Formatting	Correctness
114.	approaching of → approaching of	Improper Formatting	Correctness
115.	nonparamatic → nonparametric	Misspelled Words	Correctness
116.	biresponse → response	Misspelled Words	Correctness
117.	while semiparametic	Improper Formatting	Correctness

118.	semiparametic → semiparametric, semi parametric	Misspelled Words	Correctness
119.	using fourier → using fourier	Improper Formatting	Correctness
120.	fourier → Fourier	Misspelled Words	Correctness
121.	fourier series → fourier series	Improper Formatting	Correctness
122.	series developed	Improper Formatting	Correctness
123.	developed by → developed by	Improper Formatting	Correctness
124.	reviewing regression	Improper Formatting	Correctness
125.	regression nonparametic	Improper Formatting	Correctness
126.	nonparametic → nonparametric	Misspelled Words	Correctness
127.	nonparametic model	Improper Formatting	Correctness
128.	model with → model with	Improper Formatting	Correctness
129.	with fourier → with fourier	Improper Formatting	Correctness
130.	fourier → Fourier	Misspelled Words	Correctness
131.	fourier series → fourier series	Improper Formatting	Correctness
132.	series in → series in	Improper Formatting	Correctness
133.	in case → in case	Improper Formatting	Correctness
134.	case of → case of	Improper Formatting	Correctness
135.	of opened → of opened	Improper Formatting	Correctness
136.	research → analysis	Word Choice	Engagement
137.	polynominal → polynomial	Misspelled Words	Correctness
138.	Researchs about regression	Hard-to-read text	Clarity

nonparametric approaching of Fourier Series were done previously by Semiati (2010) Developing the estimation model of regression nonparametric approaching of biresponse Fourier Series, while semiparametric regression using fourier series developed by Asrini (2012)...

139.	sea level → sea-level	Misspelled Words	Correctness
140.	existance → existence	Misspelled Words	Correctness
141.	stronght → strength	Misspelled Words	Correctness
142.	especially → primarily	Word Choice	Engagement
143.	increasing,	Punctuation in Compound/Complex Sentences	Correctness
144.	This	Intricate Text	Clarity
145.	certainly → positively	Word Choice	Engagement
146.	occurance → occurrence	Misspelled Words	Correctness
147.	, a	Punctuation in Compound/Complex Sentences	Correctness
148.	and → and	Confused Words	Correctness
149.	and → an nd	Determiner Use (a/an/the/this, etc.)	Correctness
150.	artetic → artistic	Misspelled Words	Correctness
151.	This	Intricate Text	Clarity
152.	a flood	Determiner Use (a/an/the/this, etc.)	Correctness
153.	occured → occurred	Misspelled Words	Correctness

154.	<i>This</i>	Intricate Text	Clarity
155.	<i>is caused</i>	Passive Voice Misuse	Clarity
156.	a number, or the number	Determiner Use (a/an/the/this, etc.)	Correctness
157.	sea level → sea-level	Misspelled Words	Correctness
158.	rise → rises	Incorrect Noun Number	Correctness
159.	obvious → apparent	Word Choice	Engagement
160.	<i>is demanded</i>	Passive Voice Misuse	Clarity
161.	in order to → to	Wordy Sentences	Clarity
162.	<i>This</i>	Intricate Text	Clarity
163.	<i>is expected</i>	Passive Voice Misuse	Clarity
164.	<i>be done</i>	Passive Voice Misuse	Clarity
165.	periodic distribution	Misplaced Words or Phrases	Correctness
166.	statistica-l → statistical	Confused Words	Correctness
167.	the Fourier	Determiner Use (a/an/the/this, etc.)	Correctness
168.	Nonparametric → Nonparametric	Misspelled Words	Correctness
169.	nonparametric → nonparametric	Misspelled Words	Correctness
170.	curva → curve	Misspelled Words	Correctness
171.	variable → variables	Incorrect Noun Number	Correctness
172.	the Independent	Determiner Use (a/an/the/this, etc.)	Correctness
173.	common → standard	Word Choice	Engagement

174.	trygonometric → trigonometric, trigonometry	Misspelled Words	Correctness
175.	polynominal → polynomial	Misspelled Words	Correctness
176.	fourier → Fourier, former	Misspelled Words	Correctness
177.	<i>is generally used</i>	Passive Voice Misuse	Clarity
178.	used → user	Confused Words	Correctness
179.	, and	Punctuation in Compound/Complex Sentences	Correctness
180.	fourier → Fourier	Misspelled Words	Correctness
181.	the fourier	Determiner Use (a/an/the/this, etc.)	Correctness
182.	<i>is determined</i>	Passive Voice Misuse	Clarity
183.	the graduation	Determiner Use (a/an/the/this, etc.)	Correctness
184.	a estimator	Determiner Use (a/an/the/this, etc.)	Correctness
185.	fourier → Fourier	Misspelled Words	Correctness
186.	the graduation	Improper Formatting	Correctness
187.	gradutional → graduation, traditional, gradational	Misspelled Words	Correctness
188.	from	Inappropriate Colloquialisms	Delivery
189.	from-.	Improper Formatting	Correctness
190.	The optimal	Determiner Use (a/an/the/this, etc.)	Correctness

191.	sea level → sea-level	Misspelled Words	Correctness
192.	sea level → sea level	Improper Formatting	Correctness
193.	time function → time function	Improper Formatting	Correctness
194.	existance → existence	Misspelled Words	Correctness
195.	object tensile → object tensile	Improper Formatting	Correctness
196.	strenght → strength	Misspelled Words	Correctness
197.	especially → primarily	Word Choice	Engagement
198.	earth this → earth this	Improper Formatting	Correctness
199.	strenght → strength	Misspelled Words	Correctness
200.	from → on	Wrong or Missing Prepositions	Correctness
201.	earth → land	Word Choice	Engagement
202.	celestial → celestial	Misspelled Words	Correctness
203.	volume → size, capacity, amount, quantity	Word Choice	Engagement
204.	important → critical, vital, crucial, essential	Word Choice	Engagement
205.	, In → ; In, , and In, . In	Punctuation in Compound/Complex Sentences	Correctness
206.	It is → It is	Improper Formatting	Correctness
207.	neat changing → neat changing	Improper Formatting	Correctness
208.	changing of → changing of	Improper Formatting	Correctness
209.	sea level → sea level	Improper Formatting	Correctness

210.	coast and → coast and	Improper Formatting	Correctness
211.	and currents → and currents	Improper Formatting	Correctness
212.	formed by → formed by	Improper Formatting	Correctness
213.	the tide	Determiner Use (a/an/the/this, etc.)	Correctness
214.	In addition → Also, Besides	Wordy Sentences	Clarity
215.	important → essential, vital	Word Choice	Engagement
216.	, and	Comma Misuse within Clauses	Correctness
217.	The coastal	Determiner Use (a/an/the/this, etc.)	Correctness
218.	a very	Determiner Use (a/an/the/this, etc.)	Correctness
219.	areas → cities, neighborhoods, fields, domains	Word Choice	Engagement
220.	areas → regions	Word Choice	Engagement
221.	global → worldwide	Word Choice	Engagement
222.	sea level → sea-level	Misspelled Words	Correctness
223.	sea level → sea-level	Misspelled Words	Correctness
224.	sea water → seawater	Confused Words	Correctness
225.	, and	Comma Misuse within Clauses	Correctness
226.	sea water → seawater	Confused Words	Correctness
227.	sea level → sea-level	Misspelled Words	Correctness
228.	is noticed	Passive Voice Misuse	Clarity

229.	, so	Punctuation in Compound/Complex Sentences	Correctness
230.	is estimated	Passive Voice Misuse	Clarity
231.	sea level → sea-level	Misspelled Words	Correctness
232.	main → primary	Word Choice	Engagement
233.	resources → resources, sources	Misspelled Words	Correctness
234.	2016,	Comma Misuse within Clauses	Correctness
235.	Definiton → Definition	Misspelled Words	Correctness
236.	2016,	Comma Misuse within Clauses	Correctness
237.	a diagram	Determiner Use (a/an/the/this, etc.)	Correctness
238.	Series.	Closing Punctuation	Correctness
239.	first step → first step	Improper Formatting	Correctness
240.	to determine → to determine	Improper Formatting	Correctness
241.	value.	Punctuation in Compound/Complex Sentences	Correctness
242.	the GCV	Determiner Use (a/an/the/this, etc.)	Correctness
243.	then → than	Commonly Confused Words	Correctness
244.	determination → decision, independence	Word Choice	Engagement
245.	the GCV	Determiner Use (a/an/the/this, etc.)	Correctness
246.	is known	Passive Voice Misuse	Clarity

247.	parameter → parameters	Incorrect Noun Number	Correctness
248.	parameter → parameters	Incorrect Noun Number	Correctness
249.	<i>This</i>	Intricate Text	Clarity
250.	parameter → setting	Word Choice	Engagement
251.	. Therefore	Improper Formatting	Correctness
252.	known → understood	Word Choice	Engagement
253.	3.2,	Punctuation in Compound/Complex Sentences	Correctness
254.	it	Pronoun Use	Correctness
255.	, K	Punctuation in Compound/Complex Sentences	Correctness
256.	resulted in	Wrong or Missing Prepositions	Correctness
257.	, which	Punctuation in Compound/Complex Sentences	Correctness
258.	enough high → high enough	Misplaced Words or Phrases	Correctness
259.	choosen → chosen	Misspelled Words	Correctness
260.	, and	Comma Misuse within Clauses	Correctness
261.	choosen → chosen	Misspelled Words	Correctness
262.	regression nonparametric	Improper Formatting	Correctness
263.	nonparametric approaching	Improper Formatting	Correctness
264.	approaching of → approaching of	Improper Formatting	Correctness
265.	The result → The result	Improper Formatting	Correctness

266.	result of → result of	Improper Formatting	Correctness
267.	of estimated → of estimated	Improper Formatting	Correctness
268.	the estimated	Determiner Use (a/an/the/this, etc.)	Correctness
269.	estimated model	Improper Formatting	Correctness
270.	model can → model can	Improper Formatting	Correctness
271.	can be → can be	Improper Formatting	Correctness
272.	be seen → be seen	Improper Formatting	Correctness
273.	be seen	Passive Voice Misuse	Clarity
274.	seen on → seen on	Improper Formatting	Correctness
275.	on → in	Wrong or Missing Prepositions	Correctness
276.	...	Misuse of Semicolons, Quotation Marks, etc.	Correctness
277.	is known	Passive Voice Misuse	Clarity
278.	be estimated	Passive Voice Misuse	Clarity
279.	. The	Improper Formatting	Correctness
280.	the highest	Determiner Use (a/an/the/this, etc.)	Correctness
281.	tide → flow, wave	Word Choice	Engagement
282.	be used	Passive Voice Misuse	Clarity
283.	be predicted	Passive Voice Misuse	Clarity
284.	equation-.	Improper Formatting	Correctness

285.	GVC → VGC	Misspelled Words	Correctness
286.	the GVC	Determiner Use (a/an/the/this, etc.)	Correctness
287.	is obtained	Passive Voice Misuse	Clarity
288.	tidal average → average tidal	Misplaced Words or Phrases	Correctness
289.	...	Misuse of Semicolons, Quotation Marks, etc.	Correctness
290.	the highest	Determiner Use (a/an/the/this, etc.)	Correctness
291.	FOURIER SERIES NONPARAMETRIC REGRESSION FOR THE MODELIZING OF THE TIDAL	Fourier Series Nonparametric Regression for the Modelizing ... https://www.neliti.com/id/publications/176195/fourier-series-nonparametric-regression-for-the-modelizing-of-the-tidal	Originality
292.	<i>Abstract The method of statistic used to estimate the estimation of sea water level is by nonparametric regression approaching of Fourier series. The rob flood caused by sea level rise in Semarang becomes a dissolved problem until today This results the need of modeling to predict...</i>	Fourier Series Nonparametric Regression for the Modelizing ... https://www.neliti.com/publications/176195/fourier-series-nonparametric-regression-for-the-modelizing-of-the-tidal	Originality