

LAMPIRAN

LAMPIRAN 1 Data Bitcoin dan Informasi Blockchain

Date	BTC_USD	Average Block Size	n Transaction per Block	Median Confirmation Time	Hasht Rate	Difficulty	Cost % per Transaction	Miners Revenue	Confirmed Transaction	n Unique Addresses
23/01/2017	918.84	0.909334	1702.82	14.475	2715269	3.93E+11	0.85864	1639777	236692	426712
24/01/2017	921.46	0.973658	1866.96	24.275	2910612	3.93E+11	0.76136	1723423	278177	497858
25/01/2017	893.75	0.987909	2039.74	12.56667	2930146	3.93E+11	0.660323	1721633	305961	514638
26/01/2017	894.41	0.993201	2024.866	10.21667	3066887	3.93E+11	0.829827	1834110	317904	518118
27/01/2017	915.56	0.83768	1549.012	10.225	3320833	3.93E+11	1.188074	1976661	263332	462950
30/01/2017	914.55	0.955702	1718.007	10.43333	2852009	3.93E+11	1.218475	1736959	250829	449341
31/01/2017	920.73	0.959546	2121.952	23.925	2832475	3.93E+11	0.859704	1817471	307683	523036
01/02/2017	965.49	0.962289	1825.833	13.475	3750587	3.93E+11	0.942268	2400829	350560	599052
02/02/2017	982.43	0.913957	1653.242	15.35	3066887	3.93E+11	1.019018	2047541	259559	452585
03/02/2017	1003.97	0.970819	2171.564	16.46667	2910612	3.93E+11	0.766203	1970792	323563	560374
....
....
14/01/2019	3551.24	0.956648	2192.517	7.666667	43581703	5.86E+12	1.153554	6784730	326685	455376
15/01/2019	3703.9	1.065035	2289.992	10.23333	38609294	5.88E+12	0.485793	6111232	302279	466211
16/01/2019	3621.24	1.112098	2298.511	10.11667	38901789	5.88E+12	0.982313	6111182	305702	493981
17/01/2019	3643.99	1.097214	2336.181	9.766667	37146821	5.88E+12	1.161548	5831717	296695	462878
18/01/2019	3685.3	1.037986	2217.138	9.4	40364262	5.88E+12	1.402328	6341864	305965	484529
21/01/2019	3567.73	0.943184	2101.347	7.516667	43874198	5.88E+12	1.408916	6723983	315202	449403
22/01/2019	3571.92	1.055255	2277.231	9.7	38024305	5.88E+12	1.042927	5857635	296040	450117
23/01/2019	3602.04	1.026111	2010.233	8	42704219	5.88E+12	1.243742	6614478	293494	482793

LAMPIRAN 2 Data Makro Ekonomi

Date	S&P50 (GSPC)	Eurostoxx 50	DJI (Dow30)	IXIC (Nasdaq)	Crude Oil	Gold Futures	VIX	N225	FTSE 100	JKSE	JKLQ45
23/01/2017	2267.78	3284.87	19794.79	5546.64	53.33	1212	12.3	18938.45	7198.44	5250.635	875.86
24/01/2017	2267.88	3276.62	19794.68	5568.27	52.86	1219	11.82	18817.42	7151.18	5267.734	884.17
25/01/2017	2288.88	3290.9	19994.48	5635.86	52.95	1202	10.79	19091.23	7150.34	5302.874	884.31
26/01/2017	2298.63	3332.35	20076.25	5666.28	52.96	1199.7	10.61	19260.67	7164.43	5305.114	889.22
27/01/2017	2299.02	3318.2	20103.36	5664.88	53.74	1187.9	10.57	19453.51	7161.49	5304.964	886.01
30/01/2017	2286.01	3294.99	20028.62	5635.86	53.15	1191.7	11.1	19371.28	7184.49	5321.554	882.74
31/01/2017	2274.02	3263.87	19913.16	5592.87	52.6	1194.9	12.29	19145.35	7118.48	5316.669	877.35
01/02/2017	2285.59	3243.9	19923.81	5654.51	52.76	1211.9	11.79	18926.97	7099.15	5319.944	886.25
02/02/2017	2276.69	3258.08	19858.34	5627.15	53.57	1209.7	12.37	19152.79	7107.65	5327.02	891.04
03/02/2017	2288.54	3259.77	19964.21	5650.73	53.68	1214.9	11.84	18996.74	7140.75	5355.272	891.43
....
....
14/01/2019	2580.31	3060.62	23880.53	6908.03	51.73	1294.5	19.84	20386.4	6918.18	6351.329	1007.59
15/01/2019	2585.1	3066.02	23914.11	6931.39	50.78	1298.9	18.53	20264.82	6855.02	6347.101	1019.3
16/01/2019	2614.75	3073.06	24139.91	7033.75	52	1295.9	18.08	20575.72	6895.02	6417.131	1021.6
17/01/2019	2609.28	3069.41	24147.09	7010.13	52.3	1300.5	19.51	20544.23	6862.68	6421.407	1024.91
18/01/2019	2651.27	3079.15	24534.19	7134.09	52.23	1298.3	17.8	20472.81	6834.92	6444.213	1030.02
21/01/2019	2635.332	3131.85	24401.24	7069.838	53.66	1281.95	18.954	20848.38	6968.33	6448.536	1029.06
22/01/2019	2657.88	3120.32	24607.76	7109.57	53.73	1287.5	18.53	20770.06	6970.59	6452.604	1031.06
23/01/2019	2643.48	3104.08	24577.25	7061.65	52.95	1290.8	20.85	20453.44	6901.39	6452.906	1022.46

LAMPIRAN 3 Data Rasio Mata Uang Global

Date	GBP_USD	JPY_USD	CHF_USD	CNY_USD	EUR_USD
23/01/2017	1.2363	0.87425	0.9963	0.1458	1.0687
24/01/2017	1.2534	0.88735	1.0039	0.1461	1.0763
25/01/2017	1.2525	0.8787	0.999	0.1459	1.0734
26/01/2017	1.2638	0.88265	1.0007	0.1455	1.0746
27/01/2017	1.2599	0.87315	1.0008	0.1453	1.0685
30/01/2017	1.2552	0.8688	1.0004	0.1453	1.0692
31/01/2017	1.2485	0.8788	1.0046	0.1453	1.0695
01/02/2017	1.2587	0.88655	1.0105	0.1453	1.0798
02/02/2017	1.2664	0.88295	1.0066	0.1453	1.0767
03/02/2017	1.2525	0.88645	1.0072	0.1457	1.0759
....
....
14/01/2019	1.2849	0.00922	1.015	0.1482	1.1471
15/01/2019	1.2862	0.00924	1.0195	0.1481	1.1473
16/01/2019	1.286	0.0092	1.0123	0.1477	1.1414
17/01/2019	1.2886	0.00917	1.0097	0.1482	1.1396
18/01/2019	1.2986	0.00916	1.0058	0.1477	1.1389
21/01/2019	1.2885	0.00912	1.0053	0.1473	1.1371
22/01/2019	1.289	0.00912	1.0027	0.1472	1.1365
23/01/2019	1.2958	0.00914	1.0027	0.1469	1.1358

LAMPIRAN 4 Syntax Seleksi Variabel Menggunakan Regresi

```
#### Seleksi Variabel Menggunakan Regresi ####
d= read.csv("D://KULIAH//SEMESTER 8//Tugas Akhir//Data//Dataset
TA.csv", sep=";")
View(d)
db=data.frame(d[,-1])
model= lm(db$BTC_USD~., data=db)
model

###Korelasi antar variabel###
cor(db,method = c("pearson"))

###Plot Korelasi###
plot(db, main= "Korelasi Bitcoin dengan Semua Variabel")
par(mfrow=c(2,2))
plot(db$BTC_USD,db$avrage.block.size,main = "Korelasi Bitcoin
dengan Ukuran Rata-rata per Blok", col="blue")
plot(db$BTC_USD,db$n.transaction.per.block,main = "Korelasi
Bitcoin dengan Transaksi per Blok", col="blue")
plot(db$BTC_USD,db$median.confirmation.time,main = "Korelasi
Bitcoin dengan Waktu Konfirmasi Median", col="blue")
plot(db$BTC_USD,db$Hast.Rate,main = "Korelasi Bitcoin dengan
Tingkat Hash", col="blue")
plot(db$BTC_USD,db$Difficulty,main = "Korelasi Bitcoin dengan
Kesulitan", col="blue")
plot(db$BTC_USD,db$Cost...per.transaction,main = "Korelasi Bitcoin
dengan Persentase Biaya per Blok", col="blue")
plot(db$BTC_USD,db$Miners.Revenue,main = "Korelasi Bitcoin dengan
Penghasilan Penambangan", col="blue")
plot(db$BTC_USD,db$Confirmed.transaction,main = "Korelasi Bitcoin
dengan Transaksi Dikonfirmasi", col="blue")
plot(db$BTC_USD,db$n.unique.addresses,main = "Korelasi Bitcoin
dengan Jumlah Total Alamat Unik", col="blue")
plot(db$BTC_USD,db$S.P50..GSPC.,main = "Korelasi Bitcoin dengan
S&P 500", col="blue")
plot(db$BTC_USD,db$Eurostoxx.50,main = "Korelasi Bitcoin dengan
Euro Stoxx 50", col="blue")
plot(db$BTC_USD,db$DJI.Dow30.,main = "Korelasi Bitcoin dengan Dow
30", col="blue")
plot(db$BTC_USD,db$IXIC..Nasdaq.,main = "Korelasi Bitcoin dengan
Nasdaq", col="blue")
plot(db$BTC_USD,db$Crude.Oil,main = "Korelasi Bitcoin dengan
Minyak Mentah", col="blue")
plot(db$BTC_USD,db$Gold.Futures,main = "Korelasi Bitcoin dengan
Emas", col="blue")
plot(db$BTC_USD,db$VIX,main = "Korelasi Bitcoin dengan VIX",
col="blue")
plot(db$BTC_USD,db$N225,main = "Korelasi Bitcoin dengan Nikkei
225", col="blue")
plot(db$BTC_USD,db$FTSE.100,main = "Korelasi Bitcoin dengan FTSE
100", col="blue")
plot(db$BTC_USD,db$JKSE,main = "Korelasi Bitcoin dengan JKSE",
col="blue")
```

```

plot(db$BTC_USD,db$JKLQ45,main = "Korelasi Bitcoin dengan JKLQ45",
col="blue")
plot(db$BTC_USD,db$GBP_USD,main = "Korelasi Bitcoin dengan
GBP/USD", col="blue")
plot(db$BTC_USD,db$JPY_USD,main = "Korelasi Bitcoin dengan
JPY/USD", col="blue")
plot(db$BTC_USD,db$CHF_USD,main = "Korelasi Bitcoin dengan
CHF/USD", col="blue")
plot(db$BTC_USD,db$CNY_USD,main = "Korelasi Bitcoin dengan
CNY/USD", col="blue")
plot(db$BTC_USD,db$EUR_USD,main = "Korelasi Bitcoin dengan
EUR/USD", col="blue")

##Uji Overall
summary(model)

##Uji Parsial menggunakan stepwise###
library(MASS)
stepmodel= stepAIC(model, direction = "both",trace = FALSE)
summary(stepmodel)

##ASUMSI KLASIK REGRESI LINIER##
#Uji Normalitas Residual (Shapiro Wilk Test)#
residual1=resid(model)
residual1
library(stats)
shapiro.test(residual1)

#Uji Homoskedastisitas (Uji White atau Uji Breusch-Pagan)#
library(lmtest)
bptest(model, studentize=F, data=db)

#Uji Autokorelasi(Uji Durbin Watson)#
library(lmtest)
dwtest(model)

#Uji multikolinieritas (Variance Inflation Factor (VIF) dengan
standar VIF yang diizinkan tidak adanya multikolinieritas umumnya
adalah  $VIF < 10$ )#
library(car)
vif(model)

```

LAMPIRAN 5 Syntax BRNN

```

####BRNN Semua Variabel####
d= read.csv("D://KULIAH//SEMESTER 8//Tugas Akhir//Data//Dataset
TA.csv", sep=";")
da=data.frame(d[,-1])
View(da)

##Membagi Data Testing dan Training##
da_train=data.frame(da[1:442,])
da_test=data.frame(da[443:520,])
set.seed(12345)

##Package BRNN##
library(brnn)
##Pembentukan Model dan Penentuan Neuron##
out1_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=2,verbose=TRUE)
out1_trainall
out2_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=4,verbose=TRUE)
out2_trainall
out3_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=6,verbose=TRUE)
out3_trainall
out4_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=1,verbose=TRUE)
out4_trainall
out5_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=3,verbose=TRUE)
out5_trainall
out6_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=5,verbose=TRUE)
out6_trainall
out7_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=7,verbose=TRUE)
out7_trainall
out8_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=8,verbose=TRUE)
out8_trainall
out9_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=9,verbose=TRUE)
out9_trainall
out10_trainall=brnn(da_train$BTC_USD ~.,data = da_train,
neurons=10,verbose=TRUE)
out10_trainall

#Prediksi data Train#
predict(out1_trainall)
predict(out2_trainall)
predict(out3_trainall)
predict(out4_trainall)
predict(out5_trainall)
predict(out6_trainall)
predict(out7_trainall)

```

```

predict(out8_trainall)
predict(out9_trainall)
predict(out10_trainall)

##Prediksi Data Testing##
Yallhat1=predict(out1_trainall,da_test[,-1])
Yallhat1
Yallhat2=predict(out2_trainall,da_test[,-1])
Yallhat2
Yallhat3=predict(out3_trainall,da_test[,-1])
Yallhat3
Yallhat4=predict(out4_trainall,da_test[,-1])
Yallhat4
Yallhat5=predict(out5_trainall,da_test[,-1])
Yallhat5
Yallhat6=predict(out6_trainall,da_test[,-1])
Yallhat6
Yallhat7=predict(out7_trainall,da_test[,-1])
Yallhat7
Yallhat8=predict(out8_trainall,da_test[,-1])
Yallhat8
Yallhat9=predict(out9_trainall,da_test[,-1])
Yallhat9
Yallhat10=predict(out10_trainall,da_test[,-1])
Yallhat10

##Menghitung Error##
#MSE#
MSE1=mean((Yallhat1-da_test[,1])^2)
MSE1
MSE2=mean((Yallhat2-da_test[,1])^2)
MSE2
MSE3=mean((Yallhat3-da_test[,1])^2)
MSE3
MSE4=mean((Yallhat4-da_test[,1])^2)
MSE4
MSE5=mean((Yallhat5-da_test[,1])^2)
MSE5
MSE6=mean((Yallhat6-da_test[,1])^2)
MSE6
MSE7=mean((Yallhat7-da_test[,1])^2)
MSE7
MSE8=mean((Yallhat8-da_test[,1])^2)
MSE8
MSE9=mean((Yallhat9-da_test[,1])^2)
MSE9
MSE10=mean((Yallhat10-da_test[,1])^2)
MSE10

#RMSE#
RMSE1= sqrt(MSE1)
RMSE1
RMSE2= sqrt(MSE2)
RMSE2
RMSE3= sqrt(MSE3)
RMSE3

```

```

RMSE4= sqrt (MSE4)
RMSE4
RMSE5= sqrt (MSE5)
RMSE5
RMSE6= sqrt (MSE6)
RMSE6
RMSE7= sqrt (MSE7)
RMSE7
RMSE8= sqrt (MSE8)
RMSE8
RMSE9= sqrt (MSE9)
RMSE9
RMSE10= sqrt (MSE10)
RMSE10

#MAPE#
MAPE1= mean(abs((Yallhat1-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE1
MAPE2= mean(abs((Yallhat2-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE2
MAPE3= mean(abs((Yallhat3-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE3
MAPE4= mean(abs((Yallhat4-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE4
MAPE5= mean(abs((Yallhat5-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE5
MAPE6= mean(abs((Yallhat6-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE6
MAPE7= mean(abs((Yallhat7-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE7
MAPE8= mean(abs((Yallhat8-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE8
MAPE9= mean(abs((Yallhat9-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE9
MAPE10= mean(abs((Yallhat10-da_test$BTC_USD)/da_test$BTC_USD)*100)
MAPE10

#####BRNN dengan Variabel yang signifikan#####
d= read.csv("D://KULIAH//SEMESTER 8//Tugas Akhir//Data//Dataset
TA.csv", sep=";")
View(d)
dbaru=data.frame(d$BTC_USD,d$avrage.block.size,d$n.transaction.per
.block,

d$Miners.Revenue,d$Confirmed.transaction,d$S.P50..GSPC.,

d$Eurostoxx.50,d$DJI.Dow30.,d$IXIC..Nasdaq.,d$Crude.Oil,

d$Gold.Futures,d$N225,d$FTSE.100,d$CNY_USD,d$EUR_USD)
View(dbaru)

#Membagi Data training 85% dan Data testing 15%#
dtrain=data.frame(dbaru[1:442,])
dtest=data.frame(dbaru[443:520,])

```



```

##Pembentukan Model dan Penentuan Neuron##
library(brnn)
set.seed(12345)
out_train1=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=2,verbose=TRUE)
out_train1
out_train2=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=4,verbose=TRUE)
out_train2
out_train3=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=6,verbose=TRUE)
out_train3
out_train4=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=1,verbose=TRUE)
out_train4
out_train5=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=3,verbose=TRUE)
out_train5
out_train6=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=5,verbose=TRUE)
out_train6
out_train7=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=7,verbose=TRUE)
out_train7
out_train8=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=8,verbose=TRUE)
out_train8
out_train9=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=9,verbose=TRUE)
out_train9
out_train10=brnn(dtrain$d.BTC_USD~.,data = dtrain,
neurons=10,verbose=TRUE)
out_train10

##Prediksi Data Train##
predict(out_train1)
predict(out_train2)
predict(out_train3)
predict(out_train4)
predict(out_train5)
predict(out_train6)
predict(out_train7)
predict(out_train8)
predict(out_train9)
predict(out_train10)

##Prediksi data testing##
Y_hat1=predict(out_train1, dtest[,-1])
Y_hat1
Y_hat2=predict(out_train2, dtest[,-1])
Y_hat2
Y_hat3=predict(out_train3, dtest[,-1])
Y_hat3
Y_hat4=predict(out_train4, dtest[,-1])
Y_hat4

```

```

Y_hat5=predict(out_train5, dtest[,-1])
Y_hat5
Y_hat6=predict(out_train6, dtest[,-1])
Y_hat6
Y_hat7=predict(out_train7, dtest[,-1])
Y_hat7
Y_hat8=predict(out_train8, dtest[,-1])
Y_hat8
Y_hat9=predict(out_train9, dtest[,-1])
Y_hat9
Y_hat10=predict(out_train10, dtest[,-1])
Y_hat10

##Menghitung Error Prediksi##
#MSE#
MSE.1=mean((Y_hat1-dtest[ ,1])^2)
MSE.1
MSE.2=mean((Y_hat2-dtest[ ,1])^2)
MSE.2
MSE.3=mean((Y_hat3-dtest[ ,1])^2)
MSE.3
MSE.4=mean((Y_hat4-dtest[ ,1])^2)
MSE.4
MSE.5=mean((Y_hat5-dtest[ ,1])^2)
MSE.5
MSE.6=mean((Y_hat6-dtest[ ,1])^2)
MSE.6
MSE.7=mean((Y_hat7-dtest[ ,1])^2)
MSE.7
MSE.8=mean((Y_hat8-dtest[ ,1])^2)
MSE.8
MSE.9=mean((Y_hat9-dtest[ ,1])^2)
MSE.9
MSE.10=mean((Y_hat10-dtest[ ,1])^2)
MSE.10

#RMSE#
RMSE.1= sqrt(MSE.1)
RMSE.1
RMSE.2= sqrt(MSE.2)
RMSE.2
RMSE.3= sqrt(MSE.3)
RMSE.3
RMSE.4= sqrt(MSE.4)
RMSE.4
RMSE.5= sqrt(MSE.5)
RMSE.5
RMSE.6= sqrt(MSE.6)
RMSE.6
RMSE.7= sqrt(MSE.7)
RMSE.7
RMSE.8= sqrt(MSE.8)
RMSE.8
RMSE.9= sqrt(MSE.9)
RMSE.9
RMSE.10= sqrt(MSE.10)

```

```

RMSE.10

#MAPE#
MAPE.1= mean(abs((Y_hat1-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.1
MAPE.2= mean(abs((Y_hat2-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.2
MAPE.3= mean(abs((Y_hat3-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.3
MAPE.4= mean(abs((Y_hat4-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.4
MAPE.5= mean(abs((Y_hat5-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.5
MAPE.6= mean(abs((Y_hat6-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.6
MAPE.7= mean(abs((Y_hat7-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.7
MAPE.8= mean(abs((Y_hat8-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.8
MAPE.9= mean(abs((Y_hat9-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.9
MAPE.10= mean(abs((Y_hat10-dtest$d.BTC_USD)/dtest$d.BTC_USD)*100)
MAPE.10

####Data Baru untuk Prediksi####
d=read.csv("D://KULIAH//SEMESTER 8//Tugas Akhir//Data//Data TA
New.csv", sep=";")
View(d)
dbbar=data.frame(d$BTC_USD,d$avrage.block.size,d$n.transaction.per
.block,

d$Miners.Revenue,d$Confirmed.transaction,d$S.P50..GSPC.,

d$Eurostoxx.50,d$DJI.Dow30.,d$IXIC..Nasdaq.,d$Crude.Oil,

d$Gold.Futures,d$N225,d$FTSE.100,d$CNY_USD,d$EUR_USD)

##Prediksi Menggunakan Model Terbaik##
predict(out_train6,dbbar)

```

LAMPIRAN 6 Data Baru

Date	BTC_USD	Average Block Size	n Transaction per Block	Median Confirmation Time	Hast Rate	Difficulty	Cost % per Transaction	Miners Revenue	Confirmed Transaction	n Unique Addresses
24/01/2019	3572.05	0.911349	1902.136	8.633333	47384134	5.88E+12	1.524213	7305789	308146	470445
25/01/2019	3598.52	1.01736	2181.775	10.53333	40364262	5.88E+12	1.365946	6251655	301085	492260
28/01/2019	3565.08	1.022644	2124.566	9.333333	41912020	5.84E+12	1.052018	6351304	308062	481278
29/01/2019	3453.42	1.010223	2233.986	8.6	42201068	5.81E+12	1.271723	6315437	326162	480701
30/01/2019	3418.25	1.074708	2367.5	9.416667	39310584	5.81E+12	0.798898	5942048	321980	462720

Date	S&P50 (GSPC)	Eurostoxx 50	DJI (Dow30)	IXIC (Nasdaq)	Crude Oil	Gold Futures	VIX	N225	FTSE 100	JKSE	JKLQ45
24/01/2019	2638.84	3113.89	24579.96	7042.25	52.45	1288.3	19.69	20506.24	6842.88	6451.257	1023.13
25/01/2019	2657.44	3133.81	24687.21	7128.18	53.17	1286	18.43	20598.64	6818.95	6474.159	1025.01
28/01/2019	2644.97	3157	24596.98	7075.01	53.56	1308.5	18.56	20746.29	6809.22	6488.902	1019.14
29/01/2019	2644.89	3136.15	24519.62	7087.49	52.12	1308.5	19.45	20555.44	6747.1	6454.473	1015.52
30/01/2019	2653.62	3155.8	24826.52	7094.79	53.24	1317	19.15	20701.62	6833.93	6445.409	1023.54

Date	GBP_USD	JPY_USD	CHF_USD	CNY_USD	EUR_USD
24/01/2019	1.3068	0.00913	1.005	0.1476	1.138
25/01/2019	1.3065	0.00912	1.0033	0.1472	1.1306
28/01/2019	1.3195	0.00914	1.0062	0.1484	1.1404
29/01/2019	1.3169	0.00915	1.0086	0.1484	1.1428
30/01/2019	1.3064	0.00914	1.0053	0.1486	1.1433

LAMPIRAN 7 Bukti 14 Variabel Signifikan

```
> summary(model2)
```

```
Call:
lm(formula = dbaru$d.BTC_USD ~ ., data = dbaru)
```

```
Residuals:
```

```
      Min       1Q   Median       3Q      Max
-3056.28 -242.75   -8.83   233.42  2735.87
```

```
Coefficients:
```

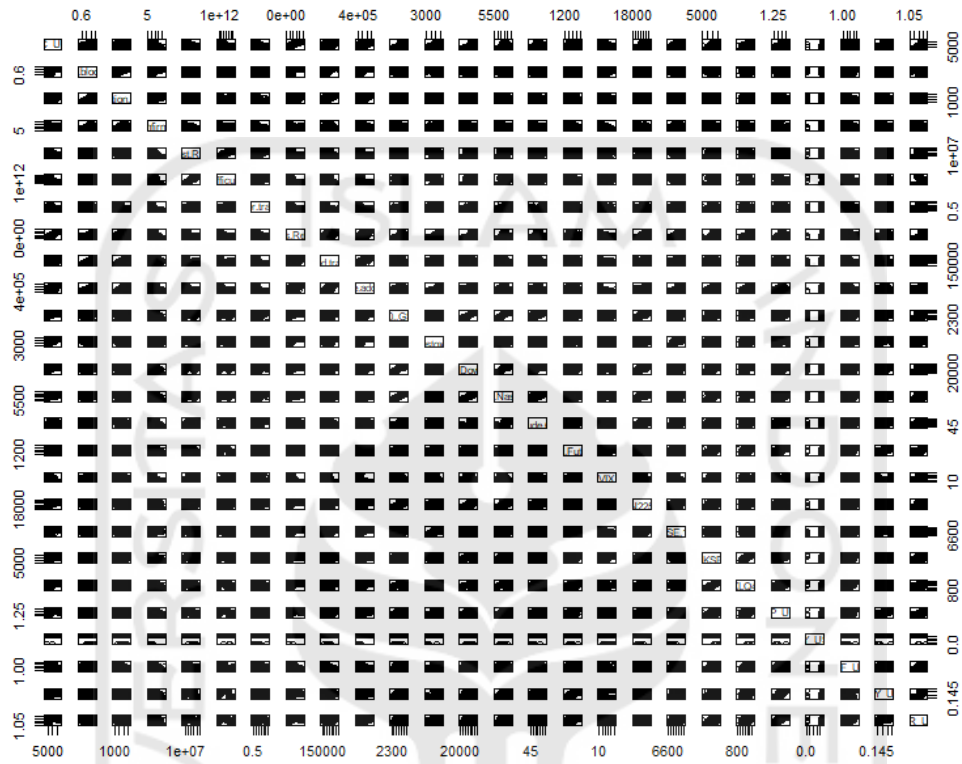
	Estimate	Std. Error	t value	Pr(> t)	
(Intercept)	-1.128e+04	1.953e+03	-5.777	1.33e-08	***
d.avrage.block.size	9.693e+02	2.381e+02	4.072	5.42e-05	***
d.n.transaction.per.block	1.317e+00	1.395e-01	9.440	< 2e-16	***
d.Miners.Revenue	3.258e-04	4.936e-06	66.012	< 2e-16	***
d.Confirmed.transaction	-9.463e-03	8.701e-04	-10.875	< 2e-16	***
d.s.P50..GSPC.	-1.032e+01	1.968e+00	-5.244	2.31e-07	***
d.Eurostoxx.50	2.104e+00	3.656e-01	5.756	1.50e-08	***
d.DJI.Dow30.	8.105e-01	1.437e-01	5.642	2.81e-08	***
d.IXIC..Nasdaq.	1.423e+00	2.546e-01	5.590	3.72e-08	***
d.Crude.oil	4.955e+01	5.725e+00	8.656	< 2e-16	***
d.Gold.Futures	-6.177e+00	1.252e+00	-4.933	1.10e-06	***
d.N225	-2.280e-01	6.246e-02	-3.650	0.00029	***
d.FTSE.100	-7.593e-01	2.004e-01	-3.789	0.00017	***
d.CNY_USD	9.338e+04	1.568e+04	5.956	4.84e-09	***
d.EUR_USD	4.123e+03	1.248e+03	3.303	0.00103	**

```
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

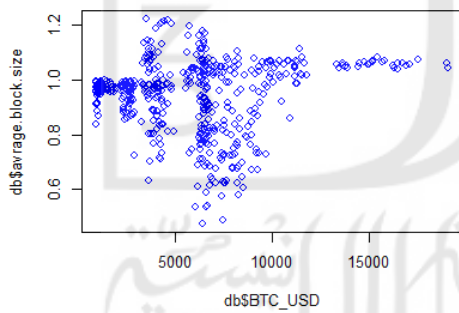
```
Residual standard error: 478.7 on 505 degrees of freedom
Multiple R-squared:  0.9833,    Adjusted R-squared:  0.9828
F-statistic: 2122 on 14 and 505 DF,  p-value: < 2.2e-16
```

LAMPIRAN 8 Plot Korelasi

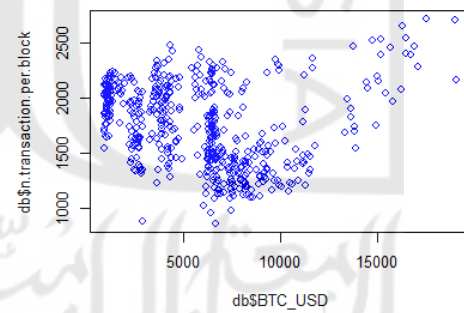
Korelasi Bitcoin dengan Semua Variabel



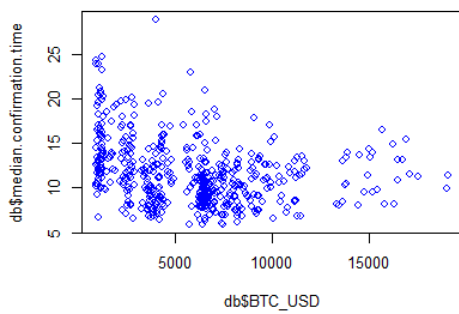
Korelasi Bitcoin dengan Ukuran Rata-rata per Blok



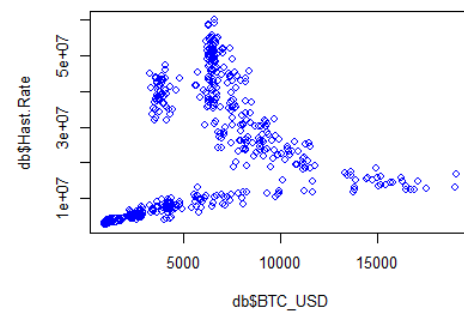
Korelasi Bitcoin dengan Transaksi per Blok



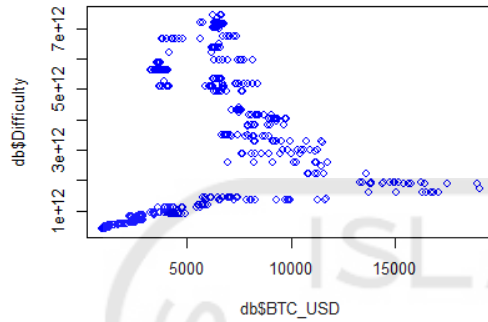
Korelasi Bitcoin dengan Waktu Konfirmasi Median



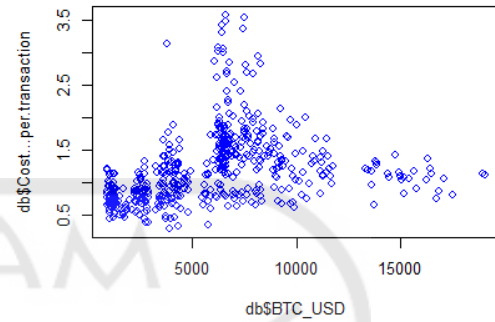
Korelasi Bitcoin dengan Tingkat Hash



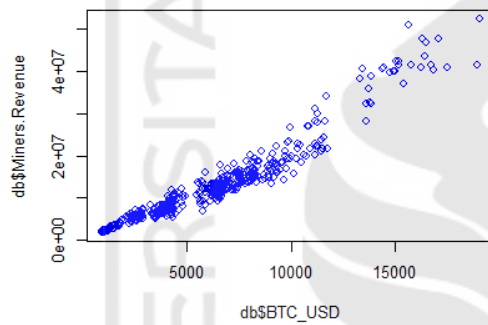
Korelasi Bitcoin dengan Kesulitan



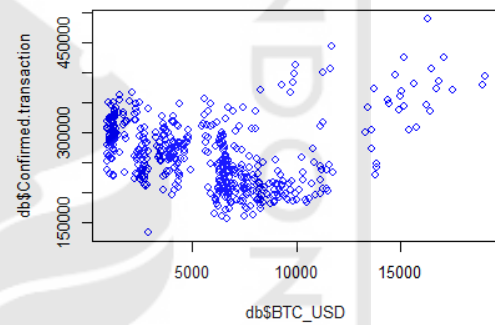
Korelasi Bitcoin dengan Persentase Biaya per Blok



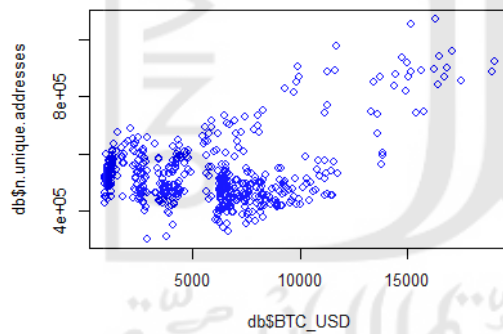
Korelasi Bitcoin dengan Penghasilan Penambangan



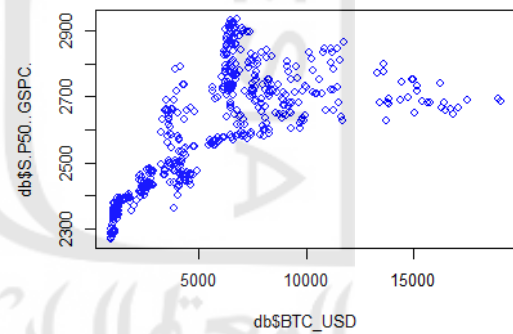
Korelasi Bitcoin dengan Transaksi Dikonfirmasi



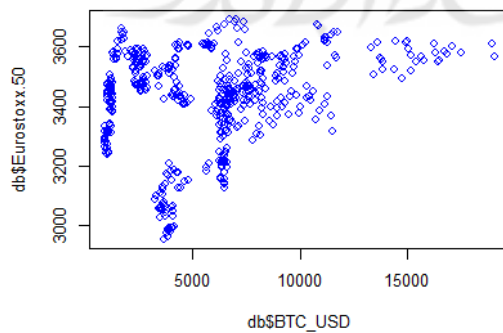
Korelasi Bitcoin dengan Jumlah Total Alamat Unik



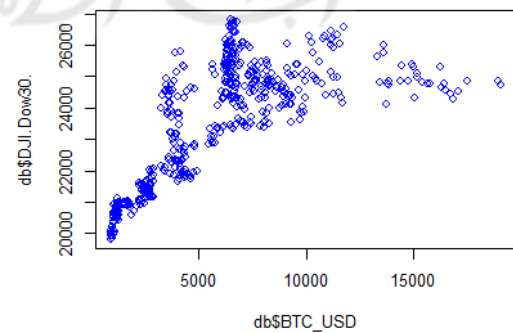
Korelasi Bitcoin dengan S&P 500



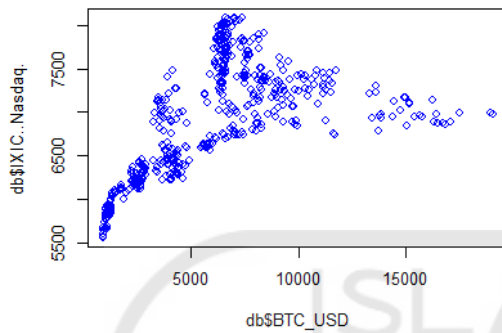
Korelasi Bitcoin dengan Euro Stoxx 50



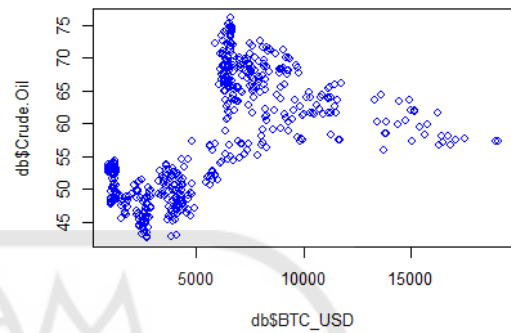
Korelasi Bitcoin dengan Dow 30



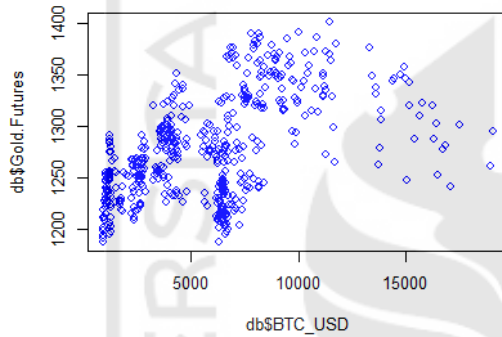
Korelasi Bitcoin dengan Nasdaq



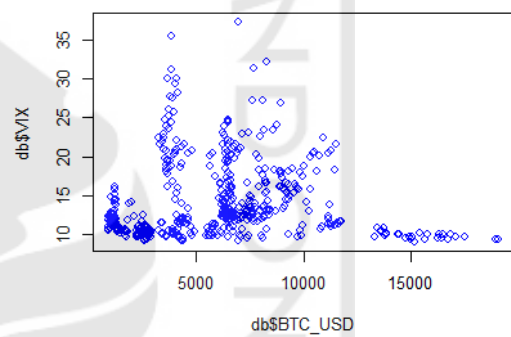
Korelasi Bitcoin dengan Minyak Mentah



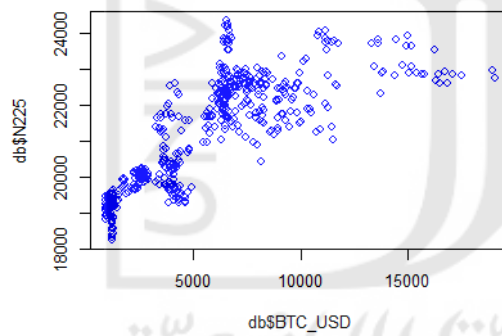
Korelasi Bitcoin dengan Emas



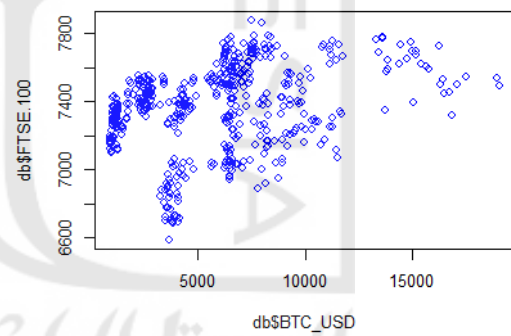
Korelasi Bitcoin dengan VIX



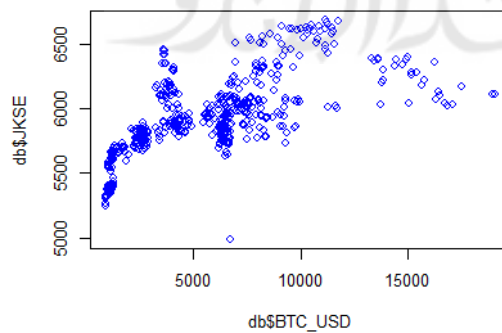
Korelasi Bitcoin dengan Nikkei 225



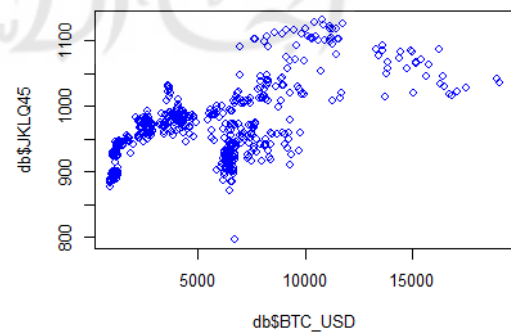
Korelasi Bitcoin dengan FTSE 100



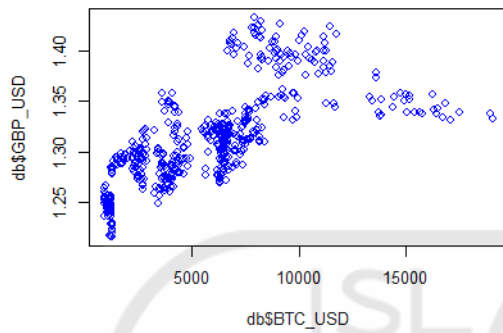
Korelasi Bitcoin dengan JKSE



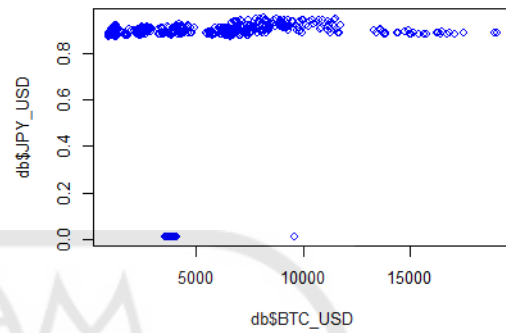
Korelasi Bitcoin dengan JKLQ45



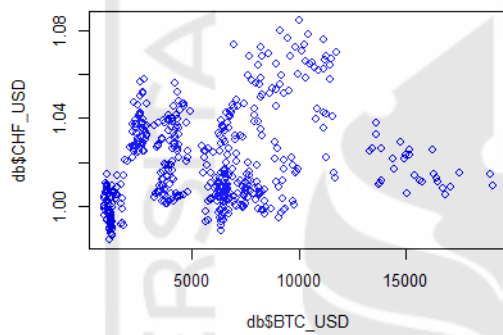
Korelasi Bitcoin dengan GBP/USD



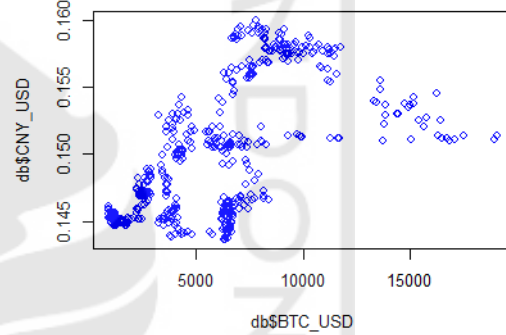
Korelasi Bitcoin dengan JPY/USD



Korelasi Bitcoin dengan CHF/USD



Korelasi Bitcoin dengan CNY/USD



Korelasi Bitcoin dengan EUR/USD

