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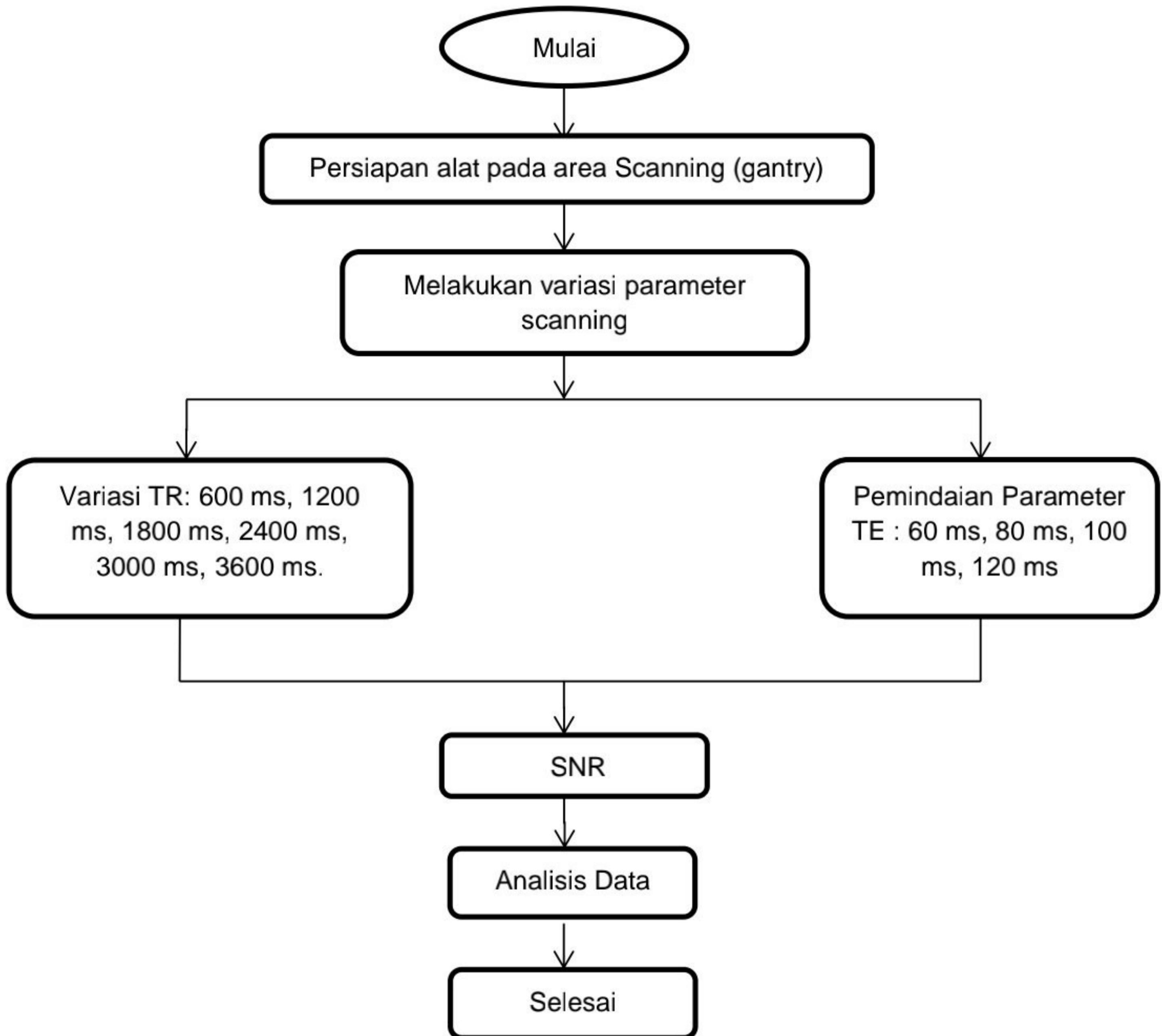
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## Lampiran

## Lampiran 1. Bagan Alir Penelitian



## Lampiran 2. Tabel Perhitungan TR Terhadap SNR

Analisis data Time Repetition

Tabel 1. Time Repetition 600 ms

NO	TR (ms)	SIGNAL (S)	NOISE (N)	SNR
1	600	433.9	3.9	67.01179
		428.2	4.1	
		432.2	3.9	
		430	4.5	
		428.2	4.8	

Tabel 2. Time Repetition 1200 ms

NO	TR (ms)	SIGNAL (S)	NOISE (N)	SNR
2	1200	511.2	4.2	72.7607
		508.8	4.9	
		506.2	4.4	
		506.3	4.8	
		503.1	4.7	

Tabel 3. Time Repetition 1800 ms

NO	TR (ms)	SIGNAL (S)	NOISE (N)	SNR
3	1800	515.3	3.5	79.24935
		515.7	4.6	
		515.5	4.2	
		511.4	4.6	
		511.7	4.5	

Tabel 4. Time Repetition 2400 ms

NO	TR (ms)	SIGNAL (S)	NOISE (N)	SNR
4	2400	519.8	3.8	77.76247
		519.4	4.2	

		516.6	4.4	
		512.1	4.7	
		512.4	4.8	

Tabel 5. Time Repetition 3000 ms

NO	TR (ms)	SIGNAL (S)	NOISE (N)	SNR
5	3000	519.5	4.4	77.53644
		516.3	4.5	
		511.9	4	
		513.5	4.6	
		511.6	4.4	

Tabel 6. Time Repetition 3600 ms

NO	TR (ms)	SIGNAL (S)	NOISE (N)	SNR
6	3600	520.9	4.1	81.57789
		516.9	3.9	
		515.6	4.3	
		514.9	4.0	
		515	4.6	

### Lampiran 3. Pengolahan Data TR Terhadap Signal to-Noise Ratio

$$SNR = \frac{S}{N} \times 0,66$$

Ket :

S : Signal

N : Noise

#### Time Repetition Terhadap Signal to-Noise Ratio

a) Time Repetition 600 ms

Pengukuran 1

$$SNR = \frac{433.9}{3.9} \times 0.66 = 73.4292$$

Pengukuran 2

$$SNR = \frac{428.2}{4.1} \times 0.66 = 68.9297$$

Pengukuran 3

$$SNR = \frac{432.2}{3.9} \times 0.66 = 73.1415$$

Pengukuran 4

$$SNR = \frac{430}{4.5} \times 0.66 = 63.0666$$

Pengukuran 5

$$SNR = \frac{428.2}{4.8} \times 0.66 = 58.8775$$

b). Time Repetition 1200 ms

$$SNR = \frac{511.2}{4.2} \times 0.66 = 80.3314$$

Pengukuran 1

$$SNR = \frac{508.8}{4.9} \times 0.66 = 68,5322$$

Pengukuran 2

$$SNR = \frac{506.2}{4.4} \times 0.66 = 75.93$$

Pengukuran 3

$$SNR = \frac{506.3}{4.8} \times 0.66 = 69.6162$$

Pengukuran 4

$$SNR = \frac{503.1}{4.7} \times 0.66 = 70.6480$$

Pengukuran 5

c). Time Repetition 1800 ms

$$SNR = \frac{515.3}{3.5} \times 0.66 = 97.1708$$

Pengukuran 1

$$SNR = \frac{515.7}{4.6} \times 0.66 = 73.9917$$

Pengukuran 2

$$SNR = \frac{515.5}{4.2} \times 0.66 = 81.0071$$

Pengukuran 3

$$SNR = \frac{511.4}{4.6} \times 0.66 = 73.3747$$

Pengukuran 4

$$SNR = \frac{511.7}{4.5} \times 0.66 = 75.0493$$

Pengukuran 5

d). Time Repetition 2400 ms

Pengukuran 1

$$SNR = \frac{519.8}{3.8} \times 0.66 = 90.2810$$

Pengukuran 2

$$SNR = \frac{519.4}{4.2} \times 0.66 = 81.62$$

Pengukuran 3

$$SNR = \frac{516.6}{4.4} \times 0.66 = 77,49$$

Pengukuran 4

$$SNR = \frac{512.1}{4.7} \times 0.66 = 71.9119$$

Pengukuran 5

$$SNR = \frac{512.4}{4.8} \times 0.66 = 70.455$$

e). Time Repetition 3000 ms

Pengukuran 1

$$SNR = \frac{519.5}{4.4} \times 0.66 = 77.925$$

Pengukuran 2

$$SNR = \frac{516.3}{4.5} \times 0.66 = 75.724$$

Pengukuran 3

$$SNR = \frac{511.9}{4} \times 0.66 = 84.4635$$

Pengukuran 4

$$SNR = \frac{513.5}{4.6} \times 0.66 = 73.6760$$

Pengukuran 5

$$SNR = \frac{511.6}{4.4} \times 0.66 = 76.74$$

f). Time Repetition 3600 ms

Pengukuran 1

$$SNR = \frac{520.9}{4.1} \times 0.66 = 83.8521$$

Pengukuran 2

$$SNR = \frac{516.9}{3.9} \times 0.66 = 87.4753$$

Pengukuran 3

$$SNR = \frac{515.6}{4.3} \times 0.66 = 79.1386$$



Pengukuran 4

$$SNR = \frac{514.9}{4} \times 0.66 = 84.9585$$

Pengukuran 5

$$SNR = \frac{515}{4.6} \times 0.66 = 7.3891$$

#### Lampiran 4. Tabel Perhitungan TE Terhadap SNR

Analisis data Time Echo

Tabel 1. Time Echo 60 ms

NO	TE (ms)	SIGNAL (S)	NOISE (N)	SNR
1	60	1039.0	3.6	150.15
		1036.6	4.7	
		1034.8	5.9	
		1028.4	4.5	
		1025.6	4.0	

Tabel 2. Time Echo 80 ms

NO	TE (ms)	SIGNAL (S)	NOISE (N)	SNR
2	80	676.9	4.2	101.43
		675.8	3.7	
		673.5	4.4	
		670.5	4.1	
		668.8	5.5	

Tabel 3. Time Echo 100 ms

NO	TE (ms)	SIGNAL (S)	NOISE (N)	SNR
3	100	517.9	4.2	77.46
		517.9	4.2	
		514.9	4.3	

		517.5	4.7	
		513.8	4.6	

Tabel 4. Time Echo 120 ms

NO	TE (ms)	SIGNAL (S)	NOISE (N)	SNR
4	120	344.3	3.8	52.37
		343.3	4.0	
		342.6	4.6	
		342.5	4.4	
		341.1	4.8	

### Lampiran 5. Pengolahan Data TE Terhadap Signal to-Noise Ratio

$$SNR = \frac{S}{N} \times 0,66$$

Ket :

S : Signal

N : Noise

#### Time Echo Terhadap Signal to-Noise Ratio

a) Time Echo 60 ms

Pengukuran 1

$$SNR = \frac{1039.0}{3.6} \times 0.66 = 190.48$$

Pengukuran 2

$$SNR = \frac{1036.6}{4.7} \times 0.66 = 145.56$$

Pengukuran 3

$$SNR = \frac{1034.8}{5.9} \times 0.66 = 115.75$$

Pengukuran 4

$$SNR = \frac{1028.4}{4.5} \times 0.66 = 150.83$$

Pengukuran 5

$$SNR = \frac{1025.6}{4.0} \times 0.66 = 169.22$$

b) Time Echo 80 ms

Pengukuran 1

Pengukuran 2

$$SNR = \frac{676.9}{4.2} \times 0.66 = 106.37$$

Pengukuran 3

$$SNR = \frac{675.8}{3.7} \times 0.66 = 120.54$$

Pengukuran 4

$$SNR = \frac{673.5}{4.4} \times 0.66 = 101.02$$

Pengukuran 5

$$SNR = \frac{670.5}{4.1} \times 0.66 = 107.93$$

Pengukuran 5

$$SNR = \frac{668.8}{5.5} \times 0.66 = 80.25$$

c) Time Echo 100 ms

Pengukuran 1

$$SNR = \frac{517.9}{4.2} \times 0.66 = 81.38$$

Pengukuran 2

$$SNR = \frac{517.9}{4.2} \times 0.66 = 81.38$$

Pengukuran 3

$$SNR = \frac{514.9}{4.3} \times 0.66 = 79.03$$

Pengukuran 4

$$SNR = \frac{517.5}{4.7} \times 0.66 = 72.67$$

Pengukuran 5

$$SNR = \frac{513.8}{4.6} \times 0.66 = 72.15$$

c) Time Echo 120 ms

Pengukuran 1

$$SNR = \frac{344.3}{3.8} \times 0.66 = 137.28$$

Pengukuran 2

$$SNR = \frac{343.3}{4.0} \times 0.66 = 56.64$$

Pengukuran 3

$$SNR = \frac{342.6}{4.6} \times 0.66 = 49.15$$

Pengukuran 4

$$SNR = \frac{342.5}{4.4} \times 0.66 = 51.37$$

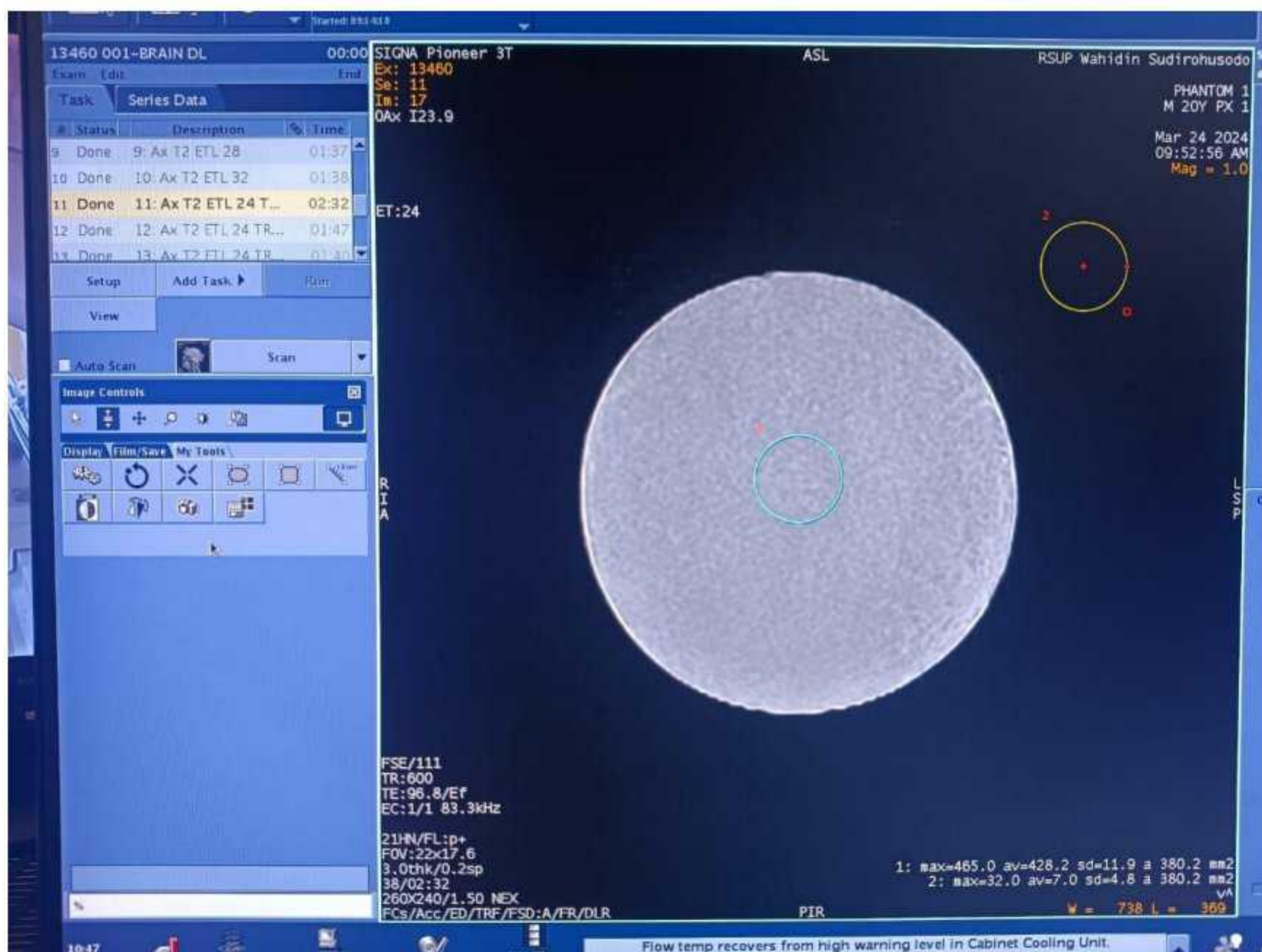
Pengukuran 5

$$SNR = \frac{341.1}{4.8} \times 0.66 = 46.90$$

### Lampiran 6. Dokumentasi Selama Pemeriksaan



### Lampiran 7. Hasil Citra Phantom Variasi Nilai TR



### Lampiran 8. Hasil Citra Phantom Variasi Nilai TE

