

|                                                                                   |                                                    |                                                                            |                                                                                                                                                      |
|-----------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>POLITEKNIK TRANSPORTASI<br/>DARAT INDONESIA</b> | <b>LAMPIRAN</b>                                                            | <br><b>PTDI - STTD</b><br>POLITEKNIK TRANSPORTASI DARAT INDONESIA |
|                                                                                   |                                                    | <b>TABEL DATA INPUT SURVEI<br/>INVENTARISASI SIMPANG TAK<br/>BERSINYAL</b> |                                                                                                                                                      |

|                  |                       |                    |                                               |              |                  |                  |                |            |                             |                |                 |        |               |            |  |  |
|------------------|-----------------------|--------------------|-----------------------------------------------|--------------|------------------|------------------|----------------|------------|-----------------------------|----------------|-----------------|--------|---------------|------------|--|--|
|                  |                       |                    |                                               |              |                  |                  |                |            |                             |                | Formulir USIG-1 |        |               |            |  |  |
| SIMPANG          |                       |                    |                                               |              |                  |                  |                |            |                             |                | Ditangani oleh  |        |               |            |  |  |
| TAK BERSINYAL    |                       |                    |                                               |              |                  |                  |                |            |                             |                | Fathurahman     |        |               |            |  |  |
|                  |                       |                    |                                               |              |                  |                  |                |            |                             |                | Kota            | Bekasi | Provinsi      | Jawa Barat |  |  |
|                  |                       |                    |                                               |              |                  |                  |                |            |                             |                | Jalan utama     |        | Jalan Bintara |            |  |  |
| Formulir USIG-1  |                       | - Geometri         |                                               | Nama simpang |                  | Pasar Kranji     |                |            |                             |                |                 |        |               |            |  |  |
|                  |                       | - Arus lalu lintas |                                               | Soal         |                  |                  |                | Periode    |                             | jam sibuk pagi |                 |        |               |            |  |  |
| Geometri simpang |                       |                    |                                               |              |                  | Arus lalu lintas |                |            |                             |                |                 |        |               |            |  |  |
|                  |                       |                    |                                               |              |                  |                  |                |            |                             |                |                 |        |               |            |  |  |
| Median Jalan     |                       | TA                 |                                               |              |                  |                  |                |            |                             |                |                 |        |               |            |  |  |
| 1                | KOMPOSISI LALU LINTAS |                    | LV %                                          | HV %         |                  | MC %             |                | Faktor smp |                             | Faktor k       |                 |        |               |            |  |  |
|                  | ARUS LALU LINTAS      | Arah               | Light vehicle LV                              |              | Heavy vehicle HV |                  | Motorcycles MC |            | Kendaraan bermotor total MV |                | Kend. Tak       |        |               |            |  |  |
|                  | Pendekat              |                    | emp =                                         |              | emp =            |                  | emp =          |            |                             |                | Rasio           |        |               |            |  |  |
|                  |                       |                    | 1                                             |              | 1.3              |                  | 0.5            |            |                             |                | belok           |        |               |            |  |  |
|                  |                       |                    | kend/jam                                      | smp/jam      | kend/jam         | smp/jam          | kend/jam       | smp/jam    | kend/jam                    | smp/jam        | UM kend/jam     |        |               |            |  |  |
|                  | (1)                   | (2)                | (3)                                           | (4)          | (5)              | (6)              | (7)            | (8)        | (9)                         | (10)           | (11)            |        |               |            |  |  |
| 2                | Jl. Simpang A         | LT                 | 802                                           | 802          | 150              | 195              | 1150           | 575        | 2102                        | 1572           | 0.47            |        |               |            |  |  |
| 3                |                       | ST                 | 885                                           | 885          | 189              | 246              | 1327           | 664        | 2401                        | 1794           | 0.533005        |        |               |            |  |  |
| 4                |                       | RT                 | 0                                             | 0            | 0                | 0                | 0              | 0          | 0                           | 0              | 0.00            |        |               |            |  |  |
| 5                |                       | Total              | 1687                                          | 1687         | 339              | 441              | 2477           | 1239       | 4503                        | 3366           |                 |        |               |            |  |  |
| 6                | Jl. Simpang C         | LT                 | 0                                             | 0            | 0                | 0                | 0              | 0          | 0                           | 0              | 0.00            |        |               |            |  |  |
| 7                |                       | ST                 | 791                                           | 791          | 205              | 267              | 1337           | 669        | 2333                        | 1726           | 0.70            |        |               |            |  |  |
| 8                |                       | RT                 | 288                                           | 288          | 142              | 185              | 503            | 252        | 933                         | 724            | 0.30            |        |               |            |  |  |
| 9                |                       | Total              | 1079                                          | 1079         | 347              | 451              | 1840           | 920        | 3266                        | 2450           |                 |        |               |            |  |  |
| 10               | Jl. Simpang total A+C |                    | 2766                                          | 2766         | 686              | 892              | 4317           | 2159       | 7769                        | 5816           |                 |        |               |            |  |  |
| 11               | Jl. Utama B           | LT                 | 477                                           | 477          | 376              | 488.8            | 236            | 118        | 1089                        | 1083.8         | 0.647547        |        |               |            |  |  |
| 12               |                       | ST                 | 0                                             | -            | 0                | -                | 0              | -          | -                           | -              |                 |        |               |            |  |  |
| 13               |                       | RT                 | 279                                           | 279          | 133              | 173              | 276            | 138        | 688                         | 589.9          | 0               |        |               |            |  |  |
| 14               |                       | Total              | 756                                           | 756          | 509              | 662              | 512            | 256        | 1,777                       | 1,674          |                 |        |               |            |  |  |
| 15               | Jl. Utama D           | LT                 | 0                                             | 0            | 0                | 0                | 0              | 0          | 0                           | 0              |                 |        |               |            |  |  |
| 16               |                       | ST                 | 0                                             | 0            | 0                | 0                | 0              | 0          | 0                           | 0              |                 |        |               |            |  |  |
| 17               |                       | RT                 | 0                                             | 0            | 0                | 0                | 0              | 0          | 0                           | 0              |                 |        |               |            |  |  |
| 18               |                       | Total              | 0                                             | 0            | 0                | 0                | 0              | 0          | 0                           | 0              |                 |        |               |            |  |  |
| 19               | Jl. Utama total B+D   |                    | 756                                           | 756          | 509              | 662              | 512            | 256        | 1,777                       | 1,674          |                 |        |               |            |  |  |
| 20               | Utama + Simpang       | LT                 | 477                                           | 477          | 376              | 488.8            | 236            | 118        | 1,089                       | 1,084          | 0.26            |        |               |            |  |  |
| 21               |                       | ST                 | 791                                           | 791          | 205              | 267              | 1,337          | 669        | 2,333                       | 1,726          |                 |        |               |            |  |  |
| 22               |                       | RT                 | 567                                           | 567          | 275              | 357.5            | 779            | 389.5      | 1621                        | 1314           | 0.32            |        |               |            |  |  |
| 23               | Utama + Simpang total |                    | 1,835                                         | 1,835        | 856              | 1,113            | 2,352          | 1,176      | 5,043                       | 4,124          | 0.58            |        |               |            |  |  |
| 24               |                       |                    | Rasio Jl. Simpang/(Jl. Utama + simpang) total |              |                  |                  |                |            | 1.541                       | UM/MV          | 0.014           |        |               |            |  |  |





**POLITEKNIK TRANSPORTASI DARAT INDONESIA**

**LAMPIRAN**  
**TABEL DATA INPUT SURVEI**  
**INVENTARISASI SIMPANG**  
**BERSINYAL**



**Formulir SIG-III**

|                              |         |                            |                     |      |                      |                     |      |                   |                     |      |                    |                              |          |            |         |          |            |  |
|------------------------------|---------|----------------------------|---------------------|------|----------------------|---------------------|------|-------------------|---------------------|------|--------------------|------------------------------|----------|------------|---------|----------|------------|--|
| SIMPANG BERSINYAL            |         |                            |                     |      |                      |                     |      |                   |                     |      |                    | Ditangani oleh : Fathurahman |          |            |         |          |            |  |
| Formulir SIG-II              |         | Kota : Bekasi              |                     |      |                      |                     |      |                   |                     |      |                    |                              |          |            |         |          |            |  |
| ARUS LALU LINTAS             |         | Simpang : Pertokoan Kranji |                     |      |                      |                     |      |                   |                     |      |                    |                              |          |            |         |          |            |  |
| ARUS KENDARAAN BERMOTOR (MV) |         |                            |                     |      |                      |                     |      |                   |                     |      |                    |                              |          |            |         |          |            |  |
| Kode                         | Arah    | Kendaraan Ringan (LV)      |                     |      | Kendaraan Berat (HV) |                     |      | Sepeda Motor (MC) |                     |      | Kendaraan Bermotor |                              |          | Rasio      |         | Arus     | Rasio      |  |
|                              |         | emp terlindung =           | 1                   |      | emp terlindung =     | 1.3                 |      | emp terlindung =  | 0.2                 |      | total              |                              | berbelok |            | UM      | UM/MV    |            |  |
| Pen-dekat                    |         | emp terlawan =             | 1                   |      | emp terlawan =       | 1.3                 |      | emp terlawan =    | 0.4                 |      | MV                 |                              |          |            |         |          |            |  |
|                              |         | kend/                      | smp/jam             |      | kend/                | smp/jam             |      | kend/             | smp/jam             |      | kend/              | smp/jam                      |          | p LT       | p RT    | kend/    | (17)/(12)  |  |
|                              |         | jam                        | terlindung terlawan |      | jam                  | terlindung terlawan |      | jam               | terlindung terlawan |      | jam                | terlindung terlawan          |          |            |         | jam      |            |  |
| (1)                          | (2)     | (3)                        | (4)                 | (5)  | (6)                  | (7)                 | (8)  | (9)               | (10)                | (11) | (12)               | (13)                         | (14)     | (15)       | (16)    | (17)     | (18)       |  |
|                              | LT/LTOR | 0                          | 0                   | 0    | 0                    | 0                   | 0    | 0                 | 0                   | 0    | 0                  | 0                            | 0        | #DIV/0!    |         | 0        | 0.000      |  |
|                              | ST      | 0                          | 0                   | 0    | 0                    | 0                   | 0    | 0                 | 0                   | 0    | 0                  | 0                            | 0        |            |         | 0        | 0.000      |  |
|                              | RT      |                            | 0                   | 0    |                      | 0                   | 0    |                   | 0                   | 0    | 0                  | 0                            | 0        | #DIV/0!    |         |          | 0.000      |  |
|                              | Total   | 0                          | 0                   | 0    | 0                    | 0                   | 0    | 0                 | 0                   | 0    | 0                  | 0                            | 0        |            |         | 0        | 0.000      |  |
| Jl Pemuda Pendekat Selatan   | LT/LTOR | 464                        | 464                 | 464  | 431                  | 560                 | 560  | 888               | 178                 | 355  | 1783               | 1202                         | 1380     | 0.51       |         | 26       | 0.015      |  |
|                              | ST      | 0                          | 0                   | 0    | 0                    | 0                   | 0    |                   | 0                   | 0    | 0                  | 0                            | 0        |            |         | 0        | 0.000      |  |
|                              | RT      | 541                        | 541                 | 541  | 387                  | 503                 | 503  | 766               | 153                 | 306  | 1694               | 1197                         | 1351     |            | 0.49    |          | 0.000      |  |
|                              | Total   | 1005                       | 1005                | 1005 | 818                  | 1063                | 1063 | 1654              | 331                 | 662  | 3477               | 2399                         | 2730     |            |         | 26       | 0.007      |  |
| Pendekatan Timur             | LT/LTOR | 641                        | 641                 | 641  | 841                  | 1093                | 1093 | 1174              | 235                 | 470  | 2656               | 1969                         | 2204     | 0.51       |         | 20       | 0.008      |  |
|                              | ST      | 614                        | 614                 | 614  | 745                  | 969                 | 969  | 1376              | 275                 | 550  | 2735               | 1858                         | 2133     |            |         | 29       | 0.011      |  |
|                              | RT      |                            | 0                   | 0    |                      | 0                   | 0    | 0                 | 0                   | 0    | 0                  | 0                            | 0        | 0.00       |         | 0        | 0.000      |  |
|                              | Total   | 1255                       | 1255                | 1255 | 1586                 | 2062                | 2062 | 2550              | 510                 | 1020 | 5391               | 3827                         | 4337     |            |         | 49       | 0.009      |  |
| Pendekatan Barat             | LT/LTOR |                            | 0                   | 0    |                      | 0                   | 0    |                   | 0                   | 0    | 0                  | 0                            | 0        | 0.00       |         | 0        | 0.000      |  |
|                              | ST      | 655                        | 655                 | 655  | 631                  | 820                 | 820  | 987               | 197                 | 395  | 2273               | 1673                         | 1870     |            |         | 25       | 0.011      |  |
|                              | RT      | 912                        | 912                 | 912  | 621                  | 807                 | 807  | 876               | 175                 | 350  | 2409               | 1895                         | 2070     |            | 0.53    | 31       | 0.013      |  |
|                              | Total   | 1567                       | 1567                | 1567 | 1252                 | 1628                | 1628 | 1863              | 373                 | 745  | 4682               | 3567                         | 3940     |            |         | 56       | 0.012      |  |
|                              |         |                            |                     |      |                      |                     |      |                   |                     |      |                    |                              |          | <b>FLT</b> | 0.91869 | 1.136586 | <b>FRT</b> |  |

LAMPIRAN



POLITEKNIK TRANSPORTASI DARAT INDONESIA

LAMPIRAN  
TABEL DATA INPUT SURVEI  
INVENTARISASI SIMPANG  
BERSINYAL



Formulir SIG-IV

|                                              |       |       |           |      |      |                                         |       |         |                          |                       |          |                  |        |        |       |         |      |              |           |             |       |         |       |          |    |
|----------------------------------------------|-------|-------|-----------|------|------|-----------------------------------------|-------|---------|--------------------------|-----------------------|----------|------------------|--------|--------|-------|---------|------|--------------|-----------|-------------|-------|---------|-------|----------|----|
| SIMPANG BERSINYAL                            |       |       |           |      |      |                                         |       |         |                          | Ditangani oleh        |          |                  |        |        |       |         |      |              |           | Fathurahman |       |         |       |          |    |
| Formulir SIG-IV : PENENTUAN WAKTU SINYAL DAN |       |       |           |      |      |                                         |       |         |                          | Kota                  |          | BEKASI           |        |        |       |         |      |              |           |             |       |         |       |          |    |
| KAPASITAS                                    |       |       |           |      |      |                                         |       |         |                          | Simpang               |          | Pertokoan Kranji |        |        |       |         |      |              |           |             |       |         |       |          |    |
| Distribusi arus lalu lintas (smp/jam)        |       |       |           |      |      |                                         |       |         |                          | Fase 1                |          |                  |        | Fase 2 |       |         |      | Fase 3       |           |             |       | Fase 4  |       |          |    |
| Kode                                         | Hijau | Tipe  | Rasio     |      |      | Arus RT smp/j                           |       | Lebar   | Arus jenuh smp/jam hijau |                       |          |                  |        |        |       |         | Arus | Rasio        | Rasio     | Waktu       | Kapa- | Derajat |       |          |    |
| pen-                                         | dalam | pen-  | kendaraan |      |      | Arah                                    | Arah  | efektif | Nilai                    | Faktor-faktor koreksi |          |                  |        |        |       |         |      | Nilai di-    | lalu      | arus        | fase  | hijau   | sitas | kejenuh- |    |
| dekat                                        | fase  | dekat | berbelok  |      |      | diri                                    | lawan | (m)     | dasar                    | Semua Tipe pendekat   |          |                  |        |        |       |         |      | Hanya tipe P | sesuaikan | lintas      | FR    | PR =    | det   | smp/j    | an |
|                                              | no.   |       |           |      |      |                                         |       |         | hijau                    | Ukuran                | Hambatan | Kelan-           | Parkir | Belok  | Belok |         |      |              |           |             |       |         |       |          |    |
|                                              |       |       | p LTOR    | p LT | p RT | Q RT                                    | Q RTO | We      | So                       | Fes                   | Fsf      | Fg               | Fp     | FRT    | FLT   | S       | Q    | Q/S          | IFR       | g           | C     | Q/C     |       |          |    |
| (1)                                          | (2)   | (3)   | (4)       | (5)  | (6)  | (7)                                     | (8)   | (9)     | (10)                     | (11)                  | (12)     | (13)             | (14)   | (15)   | (16)  | (17)    | (18) | (19)         | (20)      | (21)        | (22)  | (23)    |       |          |    |
| U                                            |       |       |           |      |      |                                         |       |         |                          |                       |          |                  |        |        |       |         |      |              |           |             |       |         |       |          |    |
| S                                            | 3     | P     | 0.51      | 0.51 | 0.49 | 1351                                    | 0     | 8.00    | 4800                     | 1.00                  | 0.91     | 1.00             | 1.00   | 1.14   | 0.92  | 4560.94 | 2730 | 0.60         | 1.26      | 40          | 2764  | 0.99    |       |          |    |
| T                                            | 2     | P     | 0.51      | 0.51 | 0.00 | 0                                       | 0     | 16.00   | 9600                     | 1.00                  | 0.91     | 1.00             | 1.00   | 1.14   | 0.92  | 9121.87 | 4337 | 0.48         | 1.00      | 60          | 8293  | 0.52    |       |          |    |
| B                                            | 1     | P     | 0.51      | 0.51 | 0.00 | 0                                       | 2070  | 16.00   | 9600                     | 1.00                  | 0.91     | 1.00             | 1.00   | 1.14   | 0.92  | 9121.87 | 3940 | 0.43         | 0.91      | 60          | 8293  | 0.48    |       |          |    |
|                                              |       |       |           |      |      |                                         |       |         |                          |                       |          |                  |        |        |       |         |      |              |           |             |       |         |       |          |    |
|                                              |       |       |           |      |      |                                         |       |         |                          |                       |          |                  |        |        |       |         |      |              |           |             |       |         |       |          |    |
|                                              |       |       |           |      |      |                                         |       |         |                          |                       |          |                  |        |        |       |         |      |              |           |             |       |         |       |          |    |
|                                              |       |       |           |      |      |                                         |       |         |                          |                       |          |                  |        |        |       |         |      |              |           |             |       |         |       |          |    |
| Waktu hilang total LT                        |       |       | 6         |      |      | Waktu siklus pra penyesuaian C ua (det) |       |         | 26.6885                  |                       |          |                  |        |        |       |         |      | IFR =        |           |             | 0.48  |         |       |          |    |
| LTI (det)                                    |       |       |           |      |      | Waktu siklus disesuaikan ( C ) (det)    |       |         | 66                       |                       |          |                  |        |        |       |         |      | E Frcrit     |           |             |       |         |       |          |    |



**POLITEKNIK TRANSPORTASI DARAT INDONESIA**

**LAMPIRAN**

**TABEL DATA INPUT SURVEI  
INVENTARISASI SIMPANG TAK  
BERSINYAL**



**PTDI - STTD**  
POLITEKNIK TRANSPORTASI DARAT INDONESIA

**Formulir SIG-V**

| SIMPANG BERSINYAL         |         |           |           |       |                              |        |          |         |          |                                       |           |             |                                     |                   |         |
|---------------------------|---------|-----------|-----------|-------|------------------------------|--------|----------|---------|----------|---------------------------------------|-----------|-------------|-------------------------------------|-------------------|---------|
| PANJANG ANTRIAN           |         |           |           |       |                              |        |          |         |          |                                       |           |             |                                     |                   |         |
|                           |         |           |           |       |                              |        |          | Kota    |          | Bekasi                                |           |             |                                     |                   |         |
| JUMLAH KENDARAAN TERHENTI |         |           |           |       |                              |        |          |         |          |                                       |           |             |                                     |                   |         |
|                           |         |           |           |       |                              |        |          | Simpang |          | Pertokoan Kranji                      |           |             |                                     |                   |         |
| TUNDAAN                   |         |           |           |       |                              |        |          |         |          |                                       |           |             |                                     |                   |         |
| Kode                      | Arus    | Kapasitas | Derajat   | Rasio | Jumlah kendaraan antri (smp) |        |          |         | Panjang  | Rasio                                 | Jumlah    | Tundaan     |                                     |                   |         |
| pendekat                  | lalu    | smp/jam   | kejenuhan | hijau | NQ1                          | NQ2    | Total    | NQ max  | antrian  | kendaraan                             | kendaraan | undaan lal  | Tundaan geo-                        | Tundaan rata-rata | Tundaan |
|                           | lintas  |           | DS        | GR    |                              |        | NQ1+NQ2= |         | QL       | NS                                    | N SV      | tas rata-ra | metrik rata-rata                    | D =               | total   |
|                           | smp/jam |           | =         | =     |                              |        |          |         | (m)      | stop/smp                              | smp/jam   | det/smp     | det/smp                             | DT + DG           | D x Q   |
|                           | Q       | C         | Q/C       | g/c   |                              |        | NQ       |         |          |                                       |           | DT          | DG                                  | det/smp           | smp.det |
| (1)                       | (2)     | (3)       | (4)       | (5)   | (6)                          | (7)    | (8)      | (9)     | (10)     | (11)                                  | (12)      | (13)        | (14)                                | (15)              | (16)    |
| S                         | 2730    | 2764      | 0.99      | 0.014 | 18.781                       | 20.235 | 39.017   | 39.017  | 97.54138 | 0.702                                 | 1915      | 56.977      | 1.679                               | 58.656            | 44.481  |
| T                         | 4337    | 8293      | 0.52      | 0.007 | 0.048                        | 32.039 | 32.087   | 32.087  | 40.10932 | 0.363                                 | 1575      | 32.669      | 1.345                               | 34.014            | 40.976  |
| B                         | 3940    | 8293      | 0.48      | 0.007 | 0.000                        | 29.096 | 29.096   | 29.096  | 36.3703  | 0.363                                 | 1428      | 32.636      | 2.450                               | 35.087            | 38.398  |
|                           |         |           |           |       |                              |        |          |         |          |                                       |           |             |                                     | rata-rata         | 41.285  |
|                           |         |           |           |       |                              |        |          |         |          |                                       |           |             |                                     |                   |         |
|                           |         |           |           |       |                              |        |          |         |          |                                       |           |             |                                     |                   |         |
|                           |         |           |           |       |                              |        |          |         |          |                                       |           |             |                                     |                   |         |
| LTOR (se                  | 3171    |           |           |       |                              |        |          |         |          |                                       |           | 0           | 6                                   | 6                 | 19026   |
| Arus kor. Qkor            |         |           |           |       |                              |        |          |         |          | Total                                 | 4919      |             |                                     | Total             | 19191   |
| Arus tota                 | 11007   |           |           |       |                              |        |          |         |          | Kendaraan terhenti rata-rata stop/smp | 0.447     |             | Tundaan simpang rata-rata (det/smp) |                   | 1.74    |

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