

## LAMPIRAN

### Lampiran 1. Source Code Metode AHP

- Matrik perbandingan berpasangan

```
// AHP : Perbandingan berpasangan
public function setPerbandinganBerpasangan()
{
    foreach ($this->dataKriteria as $index => $kriteria) {
        foreach ($this->dataKriteria as $index2 => $kriteria2) {
            $tempNilai = 0;

            if ($kriteria->id == $kriteria2->id)
                $tempNilai = 1;
            else if ($index < $index2) {
                foreach ($kriteria->matrik1 as $matrik)
                    if ($matrik->kriteria_id_2 == $kriteria2->id)
                        $tempNilai = $matrik->nilai;
            } else
                foreach ($kriteria->matrik2 as $matrik)
                    if ($matrik->kriteria_id_1 == $kriteria2->id)
                        $tempNilai = 1 / $matrik->nilai;

            $this->matrikPerbandinganBerpasangan[$index][$index2] =
            $tempNilai;
            $this->matrikPerbandinganBerpasanganJumlah[$index2] =
            (isset($this->matrikPerbandinganBerpasanganJumlah[$index2]) ?
            $this->matrikPerbandinganBerpasanganJumlah[$index2] : 0) +
            $tempNilai;
        }
    }
}
```

- Normalisasi perbandingan berpasangan

```
// AHP : Normalisasi perbandingan berpasangan
public function setNormalisasi()
{
    foreach ($this->matrikPerbandinganBerpasangan as $index =>
    $value) {
        foreach ($value as $index2 => $value2)
            $this->matrikNormalisasi[$index][$index2] = $value2 /
            $this->matrikPerbandinganBerpasanganJumlah[$index2];

        $this->matrikNormalisasiJumlahPerBaris[$index] =
        array_sum($this->matrikNormalisasi[$index]);
    }
}
```

- **Matrik prioritas**

```
// AHP : Prioritas
public function setPrioritas()
{
    foreach ($this->matrikNormalisasiJumlahPerBaris as $index =>
$value)
        $this->matrikPrioritas[$index] = $value / count($this-
>dataKriteria);
}
```

- **Lamda Max**

```
// AHP : Lamda Max
public function setLamdaMax()
{
    foreach ($this->matrikPrioritas as $index => $value)
        $this->matrikLamdaMax = $this->matrikLamdaMax + ($value *
$this->matrikPerbandinganBerpasanganJumlah[$index]);
}
```

- **Consistency Index**

```
// AHP : CI
public function setCI()
{
    $this->matrikCI = ($this->matrikLamdaMax - count($this-
>dataKriteria)) / (count($this->dataKriteria) - 1);
}
```

- **Consistency Ratio**

```
// AHP : CR
public function setCR()
{
    $this->matrikCR = count($this->dataKriteria) <= 2 ? 0 :
$this->matrikCI / $this->getIndexRandom(count($this-
>dataKriteria));
}
```