



GIS PMMS.

## Research methodology

GIS A [13]. F, S (LRA) 14 14 :

**Questionnaire survey:** A 195 U.K. LRA ( ) 67 34%.

**Interviews:** F. LRA U.K. I. D. Q. T. SPSS (S P S ) C. S. H. P. (AHP) GIS- C. C. ) R. ( S

### Stage 1 and 2 findings: Factors affecting pavement maintenance prioritisation decisions

T 1 14 [6,9,11,14-20]. T 2 LRA R 1 5 (5 ); F. F. 67

**Table 1:** Pavement Maintenance Prioritisation Factors Included in the study.

Factor Number	Factor
F1	Remaining Service Life
F2	Road Condition Indicator (RCI)
F3	Type of Deterioration
F4	Observed Deterioration Rate
F5	Tra f c Diversion
F6	Importance of Road/Classification
F7	Annual Average Daily Tra f c (AADT)
F8	Possible Conflict or Overlap with Other Road Works
F9	Risk of failure
10	Safety Concern
F11	Accident Rate (related to surface condition)
F12	Scheme Cost
F13	Available Budget/Funding
F14	Whole Life-Cycle Cost

A B /F (F13). I A A D T (AADT) (F7). 5 A F (F13) A A D T (F7) A , A

### Stage 3: Reliability and validity of prioritisation factors

T [21,22]. C SPSS (S P S ) [23]. C 0 1, 0.7 [23]. H C 0.7. C 0.7. T 3.

### Stage 4: Prioritisation of the factors for pavement maintenance using the AHP method

O LRA A H P (AHP) GIS AHP [24, I M (I.M.). I [9].

$$A = \begin{bmatrix} 1 & \frac{w_1}{w_2} & \frac{w_1}{w_n} \\ \frac{w_2}{w_1} & 1 & \frac{w_2}{w_n} \\ \frac{w_n}{w_1} & \frac{w_n}{w_2} & 1 \end{bmatrix}$$

W . . . ,

$$I = \dots \dots \dots 1 (F_1),$$

$$S = \dots \dots \dots (F).$$

T 4 . . . . . 14 . . . . .

S . . . . .

*I = ...*

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### Road condition indicator (RCI)

U.K. RCI, LRA, RCI, T 7.

Green:

Amber:

Red:

### Solving pavement maintenance priority score (pmps) equation

PMPS, R, E, GIS, F, T, T, PMPS,

A GIS 10, T 9, -4(, PA320,PA32, B375 B387, C10, C1182, T 213 T, T05[( )-28( )0.06, -1.575 - , 2.716987, R :P5692







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