

# ISO 17438-1:2016-01 (E)

## Intelligent transport systems - Indoor navigation for personal and vehicle ITS station - Part 1: General information and use case definition

---

<b>Contents</b>		<b>Page</b>
Foreword .....		v
Introduction .....		vi
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms, definitions, symbols, and abbreviated terms .....</b>	<b>1</b>
<b>3.1</b>	<b>Terms and definitions .....</b>	<b>1</b>
<b>3.2</b>	<b>Abbreviated terms .....</b>	<b>2</b>
<b>4</b>	<b>General information .....</b>	<b>2</b>
<b>4.1</b>	<b>Document overview and structure .....</b>	<b>2</b>
<b>4.3</b>	<b>Indoor navigation system architecture .....</b>	<b>3</b>
<b>4.4</b>	<b>Relevant standards .....</b>	<b>6</b>
<b>5</b>	<b>Use case overview and principles .....</b>	<b>6</b>
<b>5.1</b>	<b>Overview .....</b>	<b>6</b>
<b>5.1.1</b>	<b>Basic principles for use case definition .....</b>	<b>6</b>
<b>5.1.2</b>	<b>Use case clusters .....</b>	<b>7</b>
<b>6</b>	<b>Use case definition .....</b>	<b>8</b>
<b>6.1</b>	<b>UC 1 Indoor navigation service cluster .....</b>	<b>8</b>
<b>6.1.1</b>	<b>UC 1.1 Indoor map display .....</b>	<b>8</b>
<b>6.1.2</b>	<b>UC 1.2 Indoor positioning .....</b>	<b>8</b>
<b>6.1.3</b>	<b>UC 1.3 Indoor route planning .....</b>	<b>8</b>
<b>6.1.4</b>	<b>UC 1.4 Indoor route guidance .....</b>	<b>9</b>
<b>6.1.5</b>	<b>UC 1.5 Indoor POI search .....</b>	<b>9</b>
<b>6.1.6</b>	<b>UC 1.6 Server based indoor positioning .....</b>	<b>9</b>
<b>6.1.7</b>	<b>UC 1.7 Server based indoor route planning .....</b>	<b>10</b>
<b>6.1.8</b>	<b>UC 1.8 Server based indoor route guidance .....</b>	<b>10</b>
<b>6.1.9</b>	<b>UC 1.9 Server based indoor POI search .....</b>	<b>11</b>
<b>6.1.10</b>	<b>UC 1.10 Indoor map data information request .....</b>	<b>11</b>
<b>6.1.11</b>	<b>UC 1.11 Indoor positioning reference data information request .....</b>	<b>11</b>
<b>6.1.12</b>	<b>UC 1.12 Indoor map data download .....</b>	<b>12</b>
<b>6.1.13</b>	<b>UC 1.13 Indoor positioning reference data download .....</b>	<b>12</b>
<b>6.1.14</b>	<b>UC 1.14 Reception of emergency situation information .....</b>	<b>12</b>
<b>6.2</b>	<b>UC 2 Indoor navigation data cluster .....</b>	<b>12</b>
<b>6.2.1</b>	<b>UC 2.1 Indoor map data generation .....</b>	<b>12</b>
<b>6.2.2</b>	<b>UC 2.2 Indoor map data update .....</b>	<b>13</b>
<b>6.2.3</b>	<b>UC 2.3 Indoor map data registration .....</b>	<b>13</b>
<b>6.2.4</b>	<b>UC 2.4 Indoor map data provision .....</b>	<b>14</b>
<b>6.2.5</b>	<b>UC 2.5 Indoor positioning reference data generation .....</b>	<b>14</b>
<b>6.2.6</b>	<b>UC 2.6 Indoor positioning reference data update .....</b>	<b>14</b>
<b>6.2.7</b>	<b>UC 2.7 Indoor positioning reference data registration .....</b>	<b>15</b>
<b>6.2.8</b>	<b>UC 2.8 Indoor positioning reference data provision .....</b>	<b>15</b>
<b>6.2.9</b>	<b>UC 2.9 Provisioning of emergency situation information .....</b>	<b>15</b>
<b>6.3</b>	<b>UC 3 Indoor navigation data registry cluster .....</b>	<b>16</b>
<b>6.3.1</b>	<b>UC 3.1 Indoor data information registration and management .....</b>	<b>16</b>
<b>6.3.2</b>	<b>UC 3.2 Indoor data information provision .....</b>	<b>16</b>

<b>7</b>	<b>Requirements .....</b>	<b>16</b>
<b>7.1</b>	<b>Requirements for indoor map data .....</b>	<b>17</b>
<b>7.2</b>	<b>Requirements for indoor positioning reference data .....</b>	<b>17</b>
<b>7.3</b>	<b>Requirements for provisioning of indoor map data and indoor positioning reference data .....</b>	<b>18</b>
<b>7.4</b>	<b>Requirements for indoor navigation service .....</b>	<b>18</b>
<b>Annex A (informative)</b>	<b>BenefitExamples .....</b>	<b>19</b>
<b>Bibliography .....</b>		<b>20</b>