Let \( \{u(t; x); t \in [0; T], x \in \mathbb{R}^d\} \) be the solution to the linear fractional stochastic heat equation driven by a fractional noise in time with correlated spatial structure. We first prove the existence and uniqueness of the solution process \( u \), then study various path properties of \( u \) with respect to the time and to the space variable, respectively. In particular, we derive exact uniform moduli of continuity and Chung-type laws of iterated logarithm. (Received August 31, 2016)